

FRAUD AND PERFORMANCE OF BANKING INDUSTRY: EMPIRICAL EVIDENCE FROM NIGERIA

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ISSN: 1533 - 9211

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KEYWORDS:

Banks, Fraud, Internal
control, Nigeria,
Performance

Abstract

Fraud and performance of the banking industry in Nigeria has been a topical issue in recent times. The occasional failure of banks and the multiplier effects of banks failure on the economy has been a major concern to the government and monetary authorities. Therefore, this study examined fraud and performance of the banking industry in Nigeria from 2012 to 2023. The study adopted *ex-post facto* research design using data obtained from both Central Bank of Nigeria (CBN) statistical bulletin and Nigerian Deposit Insurance Corporation (NDIC) annual reports. Ordinary Least Square (OLS) regression was used in analyzing the relevant data via the use of E-view software. Findings from the study showed that performance of the banking industry in Nigeria was influenced significantly by number of fraudulent cases, number of staff involved and total amount of money involved. It was recommended that government in Nigeria and in other part of the world should put in place a good regulatory system while banks management should put a strong internal control system in place.

Received: 17 December 2024
Accepted: 22 January 2025
Published :31 January 2025

TO CITE THIS ARTICLE:

Akintola, A. F., Adefala, O. O., Cole, A. A., Ogunlalu, E. A., Ogundiwin, I. J., & Olanrewaju, O. G. (2025). Fraud and performance of the banking industry: Empirical evidence from Nigeria. *Seybold Report Journal*, 20(1), 31-46.

DOI:
[10.5281/zenodo.14781407](https://doi.org/10.5281/zenodo.14781407)

1 INTRODUCTION

Financial performance of a bank is very important to its investors, stakeholders as well as to the economy. While the financial stability of a bank will be measured by its ability to produce profit, enhance the value of the invested capital and also to repay its short and long term responsibilities. Deposit money banks like any other business organization are set up to make profit or to maximize the wealth of the shareholders. However, this motive of profit maximization or shareholders wealth maximization may be negatively affected by both macroeconomic variable and bank specific factors (Tyona et al, 2021). Bank fraud is one of the variables that may adversely affect the ability of a bank to make profit. Fraud occurs when a person/organization in position of trust and responsibility deliberately breaks the rules for personal or corporate gains at the expense of public interest (Ojjanwuna, 2024). Fraud has become a general phenomenon in the present day as witnessed in companies such as Tyco, Wordcom, Global Crossing as well as Enron. Fraud poses a significant challenge to the banking industry's performance, affecting both financial stability and customer trust (Hussain & Farea, 2022). The growing sophistication of cybercrimes and digital banking necessitates stronger security measures (Hussain, 2025). Consumer behavior and unethical practices, such as hidden fees, can further undermine a bank's performance (Farea, 2025). Effective regulatory frameworks and global cooperation are essential in addressing these issues (Hussain, 2023). Advancements in technology offer opportunities for improving fraud prevention strategies (Hussain, 2021). The integration of AI and neuromarketing techniques has the potential to enhance consumer awareness and reduce fraudulent activities (Hussain, 2025). Moreover, understanding impulsive buying behaviors among online shoppers can help banks mitigate risks associated with fraud (Farea, 2025). A comprehensive approach, incorporating both technology and ethical considerations, will be critical in combating fraud and ensuring the sustainability of the banking industry (Hussain, 2024). By adopting innovative practices and regulatory measures, the industry can strengthen its resilience against fraud (Hussain, 2019). Overall, fostering a proactive and ethical banking environment will safeguard the financial system's long-term health (Hussain, 2022).

All these companies experienced and suffered from the devastating effect of fraud. This has made some researchers to express the view that fraud prevention to be the main focus (Subrahmanya, 2023) as it is less expensive and most effective. If effort is focused on fraud prevention, monetary losses, time and effort would be saved (Andayani & Wuryantoro, 2023). It is important to know

that bank frauds will have impact on owners, management of the bank as well as other stakeholders of the affected bank economy hereby resulting sometimes to the bad incidence of bank distress, closures or merger and acquisition. Such a crisis situation may invariably have a negative impact on the traditional functions of the deposit money bank as a financial intermediary (Kolapo & Olaniyan, 2018). For an economy to develop and grow, the financial system of such an economy must be strong, solid, effective and efficient (Nwobia et al, 2020). The pillar of any economic development is the financial sector through the role of financial intermediation i.e by transferring funds from the surplus units to the deficit units of the economy (Ismaila & Akintola, 2023).

The increasing wave of fraud in the financial institutions in recent years pose serious challenge to the stability and survival of financial sector and specifically to deposit money banks (DMBs) (Ogbeide, 2018). Magnitude and incidences of fraud have been on the increase in the Nigerian banking sector day in day out (Udeh & Ugwu, 2018). Closure of many banks in Nigeria and in other parts of the world have been attributed to fraudulent activities perpetrated in most of the banks (Muritala et al, 2017). This situation has resulted in the loss of confidence by bank customers in the banking system in Nigeria (Imegi & Ogbeide, 2017). This made Osugba and Onyige (2020) to conclude in their study that significant reason that has impacted negatively on the performance of the banking sector in Nigeria is the fraudulent practices carried out by the fraudstars.

This study is very significant in that it reveals how fraudulent activities are being perpetrated in the banking industry by both individuals and the financial institutions, effect of the fraudulent practices on the performance of the various financial institutions. Recommendations to be made would be of great assistance to management and policy makers of the financial institutions both in Nigeria and beyond. The study will be a guide to future researchers in that it will direct them to focus on other areas this study did not cover. This study aimed to get empirical evidence on the impact of fraud on the performance of the banking industry in Nigeria.

2 REVIEW OF LITERATURE

Literature review for this study was done under theoretical and empirical review.

2.1 Theoretical Review

2.1.1 Fraud Triangle Theory (FTT)

The fraud triangle theory as developed by Donald Cressey in 1973 assumed that three (3) things

must be present before a fraud can be perpetrated. The three(3) elements are perceived pressure, perceived opportunity and perceived rationalization. Pressure is the desire to be satisfied, opportunity is ineffective control or governance system which makes people to commit organizational fraud (Abdullahi & Mansor, 2015), while rationalization is the justification and excuses that the immoral conduct is different from criminal activity (Inaya & Isito, 2016).

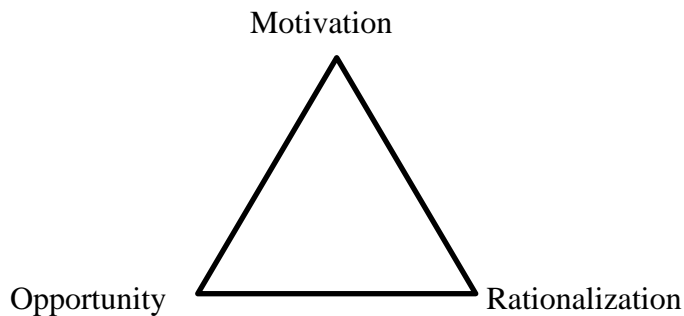


Figure 1: Fraud Triangle

Source: Donald Cressey, 1973

In support of fraud triangle theory are Ibrahim (2019) and Badejo et al (2018). They argued that the executor of the fraud may believe that he or she can commit the fraud and not get caught by the authority. The theory has been criticized on the ground that fraud can be perpetrated not only for financial reasons and that there may be non-financial factor associated with the fraud (Adeniyi, 2016). This theory is very relevant to this study because of negative relationship of bank deposit as a result of reported fraud cases.

2.1.2 Fraud Diamond Theory (FDT)

The fraud diamond theory was formulated by Wolfe and Hermanson in 2004. Wolfe and Hermanson added another variable called “capability” to the three (3) variables of fraud triangle theory developed by Donald Cressey in 1971.

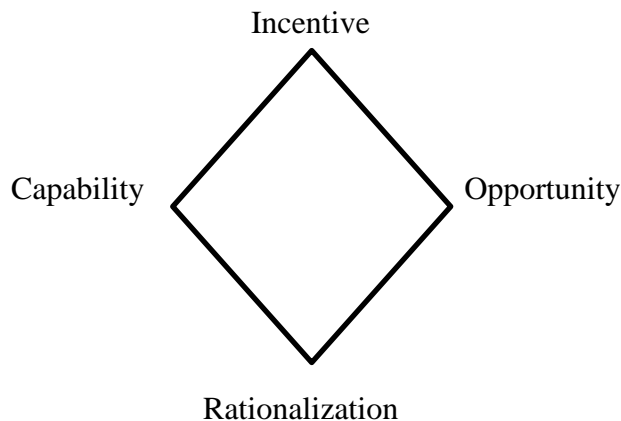


Figure 2: Fraud Diamond Theory

Source: Wolfeand Hermanson, 2004

Wolfeand Hermanson believed that a lot of frauds would not have taken place without the right person with right capabilities perpetrating the fraud in other word, the perpetrator of the fraud must have the skills and the ability to carry out the fraud (Andayani & Wuryantoro, 2023).

Diamond fraud theory is supported by Udeh and Ugwu (2018). They argued that “capability” enables the fraudstar to recognize the open door way as an opportunity and to take advantage of it by walking through repeatedly.

The theory is relevant to this study in that the perpetrator is confident the fraudulent act may not be detected.

2.1.3 Job Dissatisfaction Theory

Job Dissatisfaction Theory was developed in 1935 by Robert Hoppock. The theory assumes that dissatisfaction by employee will motivate him to commit fraud. In support of this theory, Well (2005) stated that when employees perceive that their jobs or working conditions are unfair, they are likely to justify the unfair treatment by committing fraud. Theory of job dissatisfaction has been criticized on the ground that it is difficult to prove as a result of insufficient information regarding employee theft and besides, the source of the information may not be reliable (Mustate & Tewksbury, 2002). The theory is relevant to the current study in that dissatisfaction of employees will affect their productivity which invariably will affect the performance of organization/bank. Its relevance to bank is that fraud in banks affects transaction directly because

depositors will have psychological believe that their deposits are not safe.

Theoretical Framework

Three theories were reviewed in this study namely Fraud Triangle Theory, Fraud Diamond Theory and Job Dissatisfaction Theory. This study is anchored on Fraud Diamond Theory as it incorporates all the elements in the other two theories.

2.2 Empirical Review

Literatures relating to fraud and banks performance were review in this study. Agbo et al (2016) in their study came out with a finding that number of bank staff engaged in scam did not affect the extent of fraud of the deposit money banks (DMBs) in Nigeria. Kanu and Okorafor (2013) investigated how fraud affects bank deposits in Nigeria. Findings from the study revealed positive and significant relationship between bank deposits and fraud in banking industry in Nigeria. In another study by Osuala et al (2016) on relationship between fraud and risk assets of commercial banks in Nigeria from the period of 1990 to 2013 it was established that fraud significantly has direct effect on commercial banks loans and advances in Nigeria. In addition, study by Araga and Jelili (2018) considered how fraud and forgery impacts operations of banking industry in Nigeria. The study discovered that reported number of fraud and forgeries have significant and encouraging influence on performance of banks in Nigeria. Chelangat (2014) examined the effect of frauds on banks' performance in Kenya using Pearson correlation matrix and multiple regression method. The result from the study indicates that there is a positive relationship between dimension of frauds and bank financial performance. Abdulrasheed et al (2012) examined the impact of fraud on bank performance in Nigeria. The study revealed that Nigerian banks recorded the highest cases of fraud in 2008. It was further discovered from the study that there is a significant relationship between banks profit and the total amount of funds involved in fraud. Study carried out by Tyona et al (2021), result from the study indicates that both online fraud (OLF) and Automatic Teller Machine (ATM) fraud have negative effect on bank performance. Ogbeide (2018) in empirical investigation of fraud on financial performance of banks, findings from the study revealed three period lag of number of fraud cases has negative effect on banking sector financial performance and was statistically significant. One period lag of total amount involved in the fraud and one period lag of actual/expected loss have negative signs on financial performance of banking sector in Nigeria and were statistically significant. Nwobia et al (2020) investigated electronic fraud and performance

of deposit money banks in Nigeria. Result from the study showed negative and insignificant relationship between electronic fraud and financial performance. Muritala et al (2020) examined fraud and bank performance employing Granger causality analysis. Result from the study showed a direct causal relationship between bank performance and fraud because increase in fraudulent activities in the banking industry leads to reduction in bank performance. Udeh and Ugwu (2018) carried out a similar study. Outcome of the study revealed that fraud has negative but insignificant relationship with bank profit amongst other. Study by Inaya and Isito (2016) on social impact of fraud on Nigerian banking industry revealed that banks in Nigeria thrive under high rates of fraud and that fraud has negative social impact on the Nigerian banking industry. Olaniyan et al (2021) investigated the use of forensic accounting in Nigeria banking system as a tool for fraud detection from 2010 to 2020. Finding from the study showed that while forensic account do not completely control fraud detection, forensic accounting has a good and meaningful impact on prevention of fraud in Nigeria.

In another study conducted by Nugraha and Bayuritri (2020) on influence of internal control on fraud prevention at Bank-BRI of Cimahi city. It was revealed from the study that internal control has a significant impact on fraud prevention by 56.2%. Aruomoaghe and Ikyume (2013) investigated impact of fraud on accurate financial reporting in banking sector in Nigeria. Result from the study revealed that non a accounting for fraud in the organization financial statement do not reflect a true and fair view of such financial statement and may mislead the users of such financial statements.

3 METHODOLOGY

Objective of this study was to evaluate impact of fraud on performance of banks in Nigeria. To achieve this objective, *ex post facto* research design was adopted. Data were collected from the secondary source from 2012 to 2023. Data used for this study were collected from Central Bank of Nigeria statistical bulletin and Nigerian Deposit Insurance Corporation (NDIC) annual report (various years).

3.1 Data Presentation and Analysis

In view of the nature of this research study, quantitative method was employed in this study. The study employed Ordinary Least Square (OLS) method as the estimation technique. With the aid of E-view software, the model was estimated using the data from 2012 to 2023.

3.2 Model Specification

Our model traces impact of fraud on performance of banks in Nigeria over time. Fraud was the independent variable while performance of banks in Nigeria is the dependent variable. The study specifies a functional relationship between fraud and bank performance in Nigeria. The model is specified as:

$$Y = f(x_1, x_2, x_3)$$

$$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + u$$

Where:

y = Expected losses (EL)

β_0 = Autonomous (intercept)

β_{1-3} = Coefficient of x_{1-3}

x_1 = Number of fraudulent cases (NFC)

x_2 = Number of staff involved (NSI)

x_3 = Total amount involved (TAI)

u = Error term (stochastic term)

y = represents the independent variable

x = represents the dependent variable

4 EMPIRICAL ANALYSIS AND DISCUSSION OF RESULTS

Based on the parameter of the multiple regression model specified under the methodology, the result in table 1 below were obtained

Table 1: Regression of Fraud on Bank Performance

Dependent Variable: Bank Performance

Method: Least Squares

Date: 12/12/24 Time: 18:22

Sample: 2012-2023

Included Observations: 12

Variables	Coefficient	Std. Error	t-Statistic	Prob.
C	4272.932	3267.093	1.307870	0.2272
X1	1.155623	3.398890	-0.340000	0.7426
X2	8.809449	6.138441	-1.435128	0.1892
X3	0.300865	0.100064	3.006711	0.0169
R-squared	0.737827	Mean dependent var		5967.568
Adjusted R-squared	0.639512	S.D. dependent var		5269.459
S.E. of regression	3163.816	Akaike info criterion		19.21815
Sum squared resid	80077844	Schwarz criterion		19.37978
Log likelihood	-111.3089	Hannan-Quinn criter		19.15830
F-statistic	7.504743	Durbin-Watson stat		3.062961
Prob (F-statistic)	0.010332			

Source: E-views Regression Output (2024)

Discussion of Findings

From the regression result obtained above, the estimated model is:

$$Y = 4272.932 + 1.155623x_1 + 8.809449x_2 + 0.300865x_3 + u$$

As stated under the methodology, the estimated model was evaluated to ascertain consistency or otherwise of estimates with a priori expectations, statistical significance and determination of relevant research hypotheses to adopt as well as the strength of fraud in explaining the dynamics of performance of banking industry during the study period.

The intercept of our regression result portrays a positive sign which can be deduced that the banking sector will be at a loss of ₦4272.932 million if the fraudulent activities indicators are constant and moreover, the positive sign also signal that there is a direct relationship between fraudulent activities in the banking industry and the expected loss of the industry i.e a 1% rise/fall in the fraudulent indicators will bring about a ₦4272.932 loss in the industry vice versa. From the

result, it is evidenced that as the number of fraudulent cases increased by 1%, it brings about a total of 1.16% increase in the expected loss of the banking industry. This assertion is in line with real life scenario, because as fraudulent activities are reducing, the expected loss should also reduce. The positive sign showing number of staff involved signifies that as the number of staff practising fraud increases by 1%, it will lead to 8.8% increase in the expected loss in the banking industry, which serves as a red light for such firms in the industry. The last variable indicator displays a positive trend also, meaning as the amount involved in the fraud increases by 1%, it leads to a 0.33% increases in the expected loss of the industry.

Statistical Significance

Significance of Individual Coefficient

The aim of this evaluation was to determine the statistical significance of fraud on the performance of banking industry in Nigeria during the period of the study. The t-statistics and its p-value as well as the 0.05 significance level and decision rules were employed for the evaluation. These are shown in table 2 below:

Table 2: Coefficient t-stat, P-value and Significance Level

Coefficient	T-stat	P-value	Significant
$\beta_1 =$	-034000	0.7426	No
$\beta_2 =$	-1.435128	0.1892	No
$\beta_3 =$	3.006711	0.0169	Yes

Source: Eview Programme Output (2024)

From table 2 above, the p-value of the t-statistics associated with the coefficient of β_1 and β_2 are greater than the specified significance level of 0.05. Based on this result, it clearly shows that β_1 and β_2 do not exert a statistical significant impact on the expected loss of the bank industry but β_3 does exert a statistical significant impact on the expected loss of the banking industry during the studied period.

Based on the above explanatory variable and their slope coefficient, we conclude that the number of fraudulent cases (β_1), the number of staff involved (β_2) individually has no statistical significance on the economic growth of the country. On the contrary, total amount involved in the fraud (β_3) individually has a significant effect on the banking industry performance in Nigeria during the studied period.

Table 3: F-statistics, P-Value Level of Significance

F-statistic	P-value	Greater or less than the 0.05 level of significant	Decision on overall effect
7.504743	0.010332	Less	Significant

Source: E-view Regression Output (2024)

The F-stats was used to determine the overall statistical significance of the impact of fraud on the performance of banking industry in Nigeria during the studied period. The test was carried out at 5% level of significance.

From the figure obtained above, we conclude that fraudulent practices has significant effect on bank profitability in Nigeria.

Explanatory Power of the Model (R^2 and Adj R^2)

The evaluation determined the goodness of fit of the model. The coefficient of determination is the need to determine the degree of variation in the dependent variable that is explained by the independent variable. This is summarized in table 4 below:

Table 4: R Squared, Adjusted R-Squared Variation Explained and Variation Unexplained

R squared	Adjusted R-Squared	Variation Explained	Variation Unexplained
0.737827	0.639512	74%	26%

Source: E-view Regression Output (2024)

From the regression result, the R^2 is 0.737827 while the adjusted R^2 is 0.639512. This implies that approximately 74% of the total variation in fraudulent practice is explained by performance in the banking industry in Nigeria. The remaining 26% of unexplained variations could be attributed to the stochastic variable (u) which includes other variable that are not included explicitly in the model. Similarly, the adjusted R^2 could be explained in the same manner. Therefore, it can be concluded that the variables stated above are good and reliable in determining the factors that affect performance of banking industry in Nigeria.

5 CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The study probed into how fraudulent activities affect banks performance in Nigeria. The research made use of secondary data and result from the study showed that there is positive and significant relationship between fraud and performance of banking sector in Nigeria during the period of the study.

5.2 Recommendations

The findings of this study serve as an eye opener regarding fraud and performance of banks in Nigeria and serve as a contribution to the existing body of knowledge on the subject matter. The empirical results of this study have important implication for bank management. Based on the empirical result, the study made the following recommendations:

- 1) Government in Nigeria and all over the world should develop a good regulatory environment that will enable the banks to be more accountable and fraudulent activities to be easily detected as failure of a bank will affect the whole economy.
- 2) Inadequate internal control has facilitated by frauds. Banks management should put in place strong and effective internal control system that will eliminate fraudulent practices in banks and organizations.
- 3) Forensic accounting tools should be instituted in banks and organizations to eliminate frauds and related cases.
- 4) Adequate training programmes should be put in place to enable operations staff to detect fraud and by extension in experienced worker should not be assigned to work in sensitive place where they have little or no experience to work effectively.
- 5) Banks employment policy of obtaining adequate reference in respect of would-be employees should be enforced.
- 6) Also banks should enforce a policy of sending names of staff involved in fraudulent practices to Central Bank of Nigeria and equally send the names of would be staff to Central Bank of Nigeria as a check list.
- 7) Lastly, Nigerian legal system should make speedy dispensation of justice in respect of fraudulent activities.

Conflicts of Interest

The authors have disclosed no conflicts of interest.

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HOW TO CITE THIS ARTICLE

Akintola, A. F., Adefala, O. O., Cole, A. A., Ogunlalu, E. A., Ogundiwin, I. J., & Olanrewaju, O. G. (2025). Fraud and performance of the banking industry: Empirical evidence from Nigeria. *Seybold Report Journal*, 20(1), 31-46. [DOI: 10.5281/zenodo.14781407](https://doi.org/10.5281/zenodo.14781407)

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Appendix I

Dependent Variable: Bank Performance

Method: Least Squares

Date: 12/12/24 Time: 18:22

Sample: 2012-2023

Included Observations: 12

Variables	Coefficient	Std. Error	t-Statistic	Prob.
C	4272.932	3267.093	1.307870	0.2272
X1	1.155623	3.398890	-0.340000	0.7426
X2	8.809449	6.138441	-1.435128	0.1892
X3	0.300865	0.100064	3.006711	0.0169
R-squared	0.737827	Mean dependent var		5967.568
Adjusted R-squared	0.639512	S.D. dependent var		5269.459
S.E. of regression	3163.816	Akaike info criterion		19.21815
Sum squared resid	80077844	Schwarz criterion		19.37978
Log likelihood	-111.3089	Hannan-Quinn criter		19.15830
G-statistic	7.504743	Durbin-Watson stat		3.062961
Prob (F-statistic)	0.010332			

Source: E-views Regression Output (2024)