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EFFECT OF OPPORTUNITY AND RATIONALIZATION ON FINANCIAL STATEMENT FRAUD IN DEPOSIT MONEY BANKS (DMBS)

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ABSTRACT:

This study examines the effect of opportunity and rationalization on the financial statement fraud pentagon of deposit money banks in Nigeria. The study adopts the ex post facto research design was used in the study. The population comprised thirteen (13) Deposit Money Banks listed on the Nigerian Exchange Group (NGX) as at end of 2021. To assure the homogeneity of the sample, the study uses the purposive sampling technique, which is predicated on the use of a comprehensive data set. The study made use of secondary source data. The sources were the audited yearly financial reports and account from 2012 to 2021. The Hausman test selected the random effects model over the fixed effects model. The results revealed that there is a significant (negative) relationship between opportunity and financial statement fraud in deposit money banks, rationalisation and financial statement fraud in deposit money banks. Based on this the study recommends that auditors review the availability of opportunities during the review of financial transactions. They should look for the tendency to rationalise that some employees have because it plays a role in the fraud. The results showed that the audit tasks of risk assessment, system audit, and financial report verification are very important when the psychological trait of rationalisation is well understood.

1. INTRODUCTION

Financial statements serve an important purpose, so they must be presented accurately because any major errors could lead to poor decision-making (Sihombing & Nugroho, 2023). It should "provide a comprehensive audited overview of the company's business and financial condition", according to the US Security and Exchange Commission (SEC) (Chen, 2016). Financial statements report an entity's performance for a given period (Haqq & Budiwitjaksono, 2019). However several

significant corporate failures, including those of Enron, WorldCom, Cadbury, African Petroleum, Intercontinental Bank, and Afribank (Vladu, Amat, & Cuzdriorean, 2017; Uwuigbe, Uwuigbe, & Daramola, 2014), are indicators of managerial attempts to manipulate financial statement information. Fraudulent financial reporting constitutes issuing falsified financial statements, in which numbers are manipulated by overstating assets, creating spurious entries related to sales and profit, or understating liabilities, debts, expenses, and losses. The Association of Certified Fraud Examiners (ACFE) defines fraud broadly as a scheme designed to gain benefits through deceit, misrepresentation, or concealment of relevant information in order to motivate others to commit wrongdoing. Fraud is a deliberate accounting error to mislead users of financial statements (Puspitha & Yasa, 2018).

The fraud triangle by Donald Cressey (1953) outlined three conditions which lead to higher instances of occupational fraud: pressure, opportunity, and rationalization. The danger associated with opportunity is that corporate management personnel may have the chance to circumvent internal controls that aren't working or to use such controls against themselves. Management opportunities can take many different shapes, but they often occur when management suspects that the business has flaws and that assets could be removed without anybody noticing. Rationalisation by the management and its general attitude can become fraud risk factors, for instance, employees who regularly justify their motives for committing fraud are said to be rationalising.
The widespread increase in financial statement fraud in the Nigerian setting was mostly "caused by dishonest management decisions and outright cover-up by accounting firms" (Okoye & Alao, 2008). The managers [i.e., agents] who were entrusted by the shareholders [i.e., principals] to protect their investment committed several types of management fraud. Fraud poses a significant problem for the banking sector and exposes all banks to risk. Additionally, it raises doubts about the honesty of bank management and workers and results in a complete loss of customer confidence in banking. Prior studies have examined elements of the fraud triangle model (Hanifa & Laksito, 2015; Fimanaya & Syaruddin, 2014).

Asset misappropriation is the most frequent type of fraud, accounting for 86% of all cases with an average loss of $100,000, according to the findings of a study by the ACFE that was published in its 2020 report and used samples taken from as many as 2,504 data points from 125 countries and conducted from January 2018 to September 2019. This study found that existing fraud cases resulted in losses of 3.6 billion USD. The least frequent, accounting statement fraud, accounts for 10% of all occurrences yet causes an average loss of $954,000. Devi, Widanaputra, Budiasih, and Rasmini

(2021) assert that due to increased globalisation and competitiveness, the components of the fraud triangle, i.e., opportunity and rationalisation are crucial to addressing the various incentives for fraud in contemporary organisations. The variable gap that this study tackles is the examination of the two elements of the Fraud Triangle previously identified: opportunity and rationalization, which, to the knowledge of the researcher, no one else has done to research the effect of the two elements on financial statement fraud in the banking sector. Until now, little research has been done to discuss this case, especially using the fraud pentagon theory.

1.1 Objectives of the Study

The broad objective of the study is to examine the effect of opportunity and rationalization on the financial statement fraud pentagon of deposit money banks in Nigeria. The study specifically seeks to ascertain:

1. The influence of opportunity on financial statement fraud of deposit money banks in Nigeria.
2. The effect of rationalization on financial statement fraud of deposit money banks in Nigeria.

1.2 Hypotheses

Ho_1: There is no significant effect of opportunity on financial statement fraud in deposit money banks.

Ho_2: There is no significant effect of rationalization on financial statement fraud in deposit money banks.

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Fraud

The Merriam-Webster‘s Dictionary of Law (1996) as quoted in Abdullahi, Mansor, and Nuhu (2015) defined fraud as any act, expression, omission, or concealment calculated to deceive another to his or her disadvantage, specifically a misrepresentation or concealment with reference to some fact material to a transaction that is made with knowledge of its falsity, and or in reckless disregard of its truth or falsity and worth the intent to deceive another and that is reasonably relied on by the other who is injured thereby. According to the American Institute of Certified Public Accountants (2019), corporate fraud is fraudulent behaviour that causes errors in reporting material financial reports that are the subject of the audit. Fraud can be divided into fraud which occurs due to falsification of financial report reporting and fraud which occurs due to misuse of company assets.

Fraudulent financial reporting may be accomplished by:

1. Manipulation, falsification, or alteration of accounting records or supporting documents from which financial statements are prepared;
2. Misrepresentation in or intentional omission from the financial statements of events, transactions, or other significant information;
3. Intentional misapplication of accounting principles relating to amounts, classification, manner of presentation, or disclosure (AICPA, 2002).

Fraud has been described as a pandemic socio-economic disease that can be found in both public and private sectors of the economy (Udeh & Ugwu, 2018). Gbegi and Adebisi (2014) further described fraud as endemic and gradually becoming a norm in Nigeria, cutting across all sectors of society, especially the public sector. Bank frauds have significant effects on all parties involved as well as the overall economy of the country (Owolabi, 2010). Large-scale fraud has occurred in Nigerian banks, which has occasionally-among other things-led to bank difficulty. A banking system that is in trouble cannot efficiently perform its intermediation function because there will be a credit crunch, which will stop new lending. The bank may have a low capital adequacy ratio or a lack of liquidity.

2.1.2 Opportunity and Financial Statement Fraud

The second factor that causes financial statement fraud is the opportunity (Cressey, 1953). An opportunity has always been associated with internal control and is a mandatory element to perpetrate and conceal fraud (Schuchter & Levi, 2016). Companies with weak internal controls will have many loopholes that can present an opportunity for management to manipulate transactions or accounts. Beasley, Carcello, Hermanson, and Lapides (2000) argue "that strong internal corporate governance mechanisms serve as a deterrent to fraudulent financial reporting in non-financial firms".

Certain risk factors may enhance the opportunity to commit financial statement fraud (AICPA 2002). These risk factors include the following:

i. The nature of the industry or the entity's operations such as significant complex or related party transactions;
ii. Ineffective monitoring of management;
iii. A complex organizational structure such as one that involves several legal entities;
iv. Ineffective controls due to a lack of monitoring of controls or circumvention of controls;

v. Ineffective means of communicating and supporting the entity's accountability for public resources and ethics;
vi. Lack of transaction authorization;
vii. Poor accounting record;
viii. Lack of physical control;
ix. Lack of audit trail;
x. Lack of mandatory vacation of an employee in key control function;
xi. Lack of established policies or controls related to investment risk;
xii. Breakdown of procedures such as inappropriate computer access, ineffective physical inventories;
xiii. Lack of segregation of duties; and
xiv. Failure to discipline perpetrators.

2.1.3 Rationalisation and Financial Statement Fraud

Rationalization involves the perpetrators seeking to justify their actions in committing fraud. Studies have shown that rationalization can lead to financial statement fraud (Sihombing & Rahardjo, 2014). Rationalization is a factor often viewed as out of the control of management and internal auditors because an individual who commits fraud justifies their action as being consistent with their code of ethics. This is often a function of the fact that those who are trusted are placed in positions where fraud may be committed. The level of ethical principles varies greatly among individuals. Some of the rationalizations that are often associated with fraud include:

i. Desire to seek revenge:
ii. The feeling of being underpaid;
iii. Nobody will get hurt;
iv. The belief of being overworked;
v. Feeling that everybody else is doing it; and
vi. It is only a loan and will be paid back.
vii. Low self-esteem or morale:

2.2 Theoretical Review

2.2.1 Fraud Triangle Theory

The study anchored on the fraud triangle theory. The Fraud Triangle Model was created by Dr Donald R. Cressey (1953), an American sociologist and criminologist. He focused his research on the circumstances that lead individuals to engage in fraudulent and unethical activity. According to

Cressey, fraud is the result of a set of circumstances which come together at a particular time and place causing someone to become a fraud perpetrator, particularly a trusted employee. Cressey (1953) three factors as the Fraud Triangle which involves:

1. **The motive or pressure to commit fraud**: This is perceived in the form of real or perceived financial needs or moral needs such as getting back at the employer. This individual feels that he wants to, or has a need to, commit fraud.
2. **The perceived opportunity to commit fraud and get away with it**: This arises as a result of these enabling factors: deficient internal controls and weak corporate governance. When one or two of these factors weigh(s) heavily in the direction of fraud, the probability increases.
3. **The rationalization of the perpetrator**: This is achieved through finding a morally acceptable excuse that justifies why their action is not considered a crime.

2.3 Empirical Review

Sihombing and Nugroho (2023) conducted a study titled 'The effect of the fraud triangle in financial statement detection of fraud on transportation companies'. The sample comprised 54 companies listed on S&P Capital IQ and Bursa Efek Indonesia from 2018 to 2020. The variables tested in this research are financial stability pressure, excessive pressure, personal financial need, financial target, ineffective control, and rationalization. The study analysed the secondary data using multiple regression technique. The empirical results showed that financial stability pressure, personal financial need, financial target, and independent rationalization variables positively affect the occurrence of financial statement fraud. In contrast, excessive pressure and ineffective control of independent variables hurt the occurrence of financial statement fraud.

Salami and Olabamiji (2021) examined the effect of fraud on the profitability of listed deposit money banks in Nigeria. The study focused on 14 listed DMBs for six years (2012-2017). Panel multiple regression techniques were used to estimate the model of the study. The findings showed that fraud (proxied by actual loss from fraud and staff involvement in fraud) has a negative and significant effect on the profitability (proxied by return on asset) of listed DMBs in Nigeria.

Christian, Basri, and Arafah (2019) analysed the fraud triangle, fraud diamond and fraud pentagon theory in detecting corporate fraud in Indonesia. The sample comprised 310 firms; and, the authors employed secondary data from annual reports which spanned 2012 to 2017. The data were analysed using the OLS technique. The results showed that the fraud triangle, fraud diamond and fraud pentagon had a significant effect on corporate fraud.

Haqq and Budiwitjaksono (2019) analysed the utility of the fraud pentagon in detecting financial statement fraud. The study specifically evaluates the financial target, financial stability, external pressure, ineffective monitoring, nature of the industry, change in auditor, change in director, CEO photo frequency, political connection, and company existence in financial reporting. The sample comprised 78 companies listed on the LQ45 index on the Indonesian Stock Exchange (IDX) during the period 2015-2017. The data were analyzed using the multiple regression technique. The results indicate that financial stability and CEO photo frequency can be used to detect fraud in financial reporting. However, financial targets, external pressure, ineffective monitoring, the nature of the industry, auditor changes, changes in directors, political connections, and company existence cannot be used to detect fraud in financial reporting.

Puspitha and Yasa (2018) utilized the fraud pentagon analysis to detect fraudulent financial reporting in Indonesia. The sample comprised non-financial firms. The study utilized secondary data from 2012 to 2016. They employed the use of logistic regression analysis. The results prove that external pressure, ineffective monitoring, auditor switching, change of director, and the frequency of CEO pictures can predict fraudulent financial reporting (FFR). However, financial stability, personal financial needs, financial targets, the nature of the industry, and organizational structures do not predict FFR.

Nindito (2018) analyzed financial statement fraud from the perspective of the fraud pentagon model. The sample comprised 14 companies listed on the Indonesia Stock Exchange that incurred sanctions from the Financial Services Authority, and 14 comparable companies as a control sample that were similar in both industry and size. The study utilized secondary data from 2013 to 2015. The data were analyzed using logistic regression analysis. The results show that free cash flow as a proxy of pressure; independence of the audit committee as a proxy of opportunity, total accruals as a proxy of rationalization, and disclosure of doubtful debts as a proxy of capability have significant negative effects on financial statement fraud.

3. MATERIAL AND METHOD

The ex post facto research design was used in the study (Mawutor, Enofe, Embele, Ndu, & Awodola, 2019). This research used panel data which is appropriate since no effort is made to regulate or influence the pertinent independent variables, and because their effects have already been

felt. In hindsight, independent variables are investigated to look out for potential relationships and the likely consequences that changes in independent factors have on a single or group of dependent variables. The population of the study comprised all thirteen (13) Deposit Money Banks listed on the Nigerian Exchange Group (NGX) as at end of 2021. The DMBs banks included in the study were as follows:

Table 1: List of Deposit Money Banks

S/N	Money Deposit Banks in Nigeria
1	Access Bank PLC
2	Eco Bank Transnational incorporation
3	Fidelity Bank PLC
4	First Bank Nigeria Limited
5	First City Monument Bank (FCMB) PLC
6	Guarantee Trust Bank (GTB) PLC
7	Skye Bank PLC
8	Sterling Bank PLC
9	United Bank for Africa (UBA) PLC
10	Union Bank of Nigeria PLC
11	Unity Bank PLC
12	Wema Bank PLC
13	Zenith Bank PLC

Source: The Nigerian Exchange Group [NGX] (2021)

To assure the homogeneity of the sample, the study uses the purposive sampling technique, which is predicated on the use of a comprehensive data set. The study made use of secondary source data. The sources were the audited yearly financial reports and accounts for the years 2012 to 2021, which were downloaded from the websites of the DMBs and the Nigerian Exchange Group (NGX). The data were analyzed using descriptive and inferential statistical analyses. The descriptive statistical analysis included the variables mean, minimum, maximum, and standard deviation. The inferential statistical analysis used here is multiple regression analysis to test the proposed hypotheses.

Table 2: Description of input variables

	Indicator	Measurement	Source
Opportunity	Related party transactions	Non-performing loan / Shareholders' fund	Egolum, Okoye, and Eze, (2019); Chen and Elder (2007)
	Weak internal control	Total loan / Shareholders' fund	Egolum, Okoye, and Eze, (2019); Chen and Elder (2007)
	Rapid growth	Non-performing loan / Total current asset	Egolum, Okoye, and Eze, (2019); Chen and Elder (2007)
Rationalization	Economic downturn	Dividend coverage ratio = PAT/Dividend paid	Egolum, Okoye, and Eze, (2019); Chen and Elder (2007)
	Poor market share	Interest coverage ratio = EBIT/Interest charges	Egolum, Okoye, and Eze, (2019); Chen and Elder (2007)

Source: The Researcher (2022)

3.1 Model Specification

Based on the objectives of the study, a model was created to examine each of the null hypotheses. The following model was employed in this investigation and was developed from the work of Sebe-Yeboah and Mensah (2014):

$FSF = \beta_0 + \beta_1 OPR_{it} + \beta_2 RAT_{it} + \mu$ - - - (1)

FSF = Financial Statement Fraud

OPR = Opportunity Risk Factor

RAT = Rationalization Risk Factor

μ = the error term

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

Table 3a: Descriptive statistics of OPR and RAT variables

	REPA	WEIC	RAPG	ECOD	POMS
Mean	0.295094	3.744884	0.195011	9.955729	1.509234
Median	0.122061	3.371769	0.065563	2.700166	0.597748
Maximum	3.473320	57.68974	4.105530	420.1395	17.91874
Minimum	-0.111101	-0.975073	0.000000	0.000000	-0.415090
Std. Dev.	0.591404	4.962137	0.470605	42.77209	2.499111
Skewness	3.542945	9.969576	5.581378	8.049207	3.345534
Kurtosis	15.46943	109.1461	41.03634	71.95192	17.90772
Jarque-Bera	1114.190	63183.02	8511.588	27156.60	1446.307
Probability	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	38.36219	486.8349	25.35147	1294.245	196.2005
Sum Sq. Dev.	45.11885	3176.342	28.56953	235999.3	805.6767
Observations	130	130	130	130	130

Source: E-Views 10

Key: REPA-Related Party Transaction; WEIC-Weak Internal Control; RAPG-Rapid Growth; ECOD-Economic Downturn; POMS-Poor Market Share.

Table 3b: Correlation analysis of FSF, OPR and RAT variables

	FSF	OPR	RAT
FSF	1		
OPR	-0.1178	1	
RAT	-0.1887	-0.024	1

Source: E-Views 10

Key: FSF-Financial Statement Fraud; OPR-Opportunity; RAT-Rationalisation.

4.1.1 Diagnostic Test

The Hausman test was used to select between FEM and REM. It seeks to determine whether the coefficient estimators of the fixed and random effects models differ from one another (Cameron & Trivedi, 2009). The hypothesis for the Hausman test is shown below:

H_o: The preferred model is random effects;

H_1: The preferred model is fixed effects.

Table 4: Correlated random effects-Hausman test

Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1.579458	2	0.4540

Source: E-Views 10

The results show that the random effects model is more appropriate than the fixed effects model, and the null hypothesis is accepted (at 1% and 5%). In statistical models known as random-effect models, some of the parameters (effects) that determine the model's systematic components display some degree of random variation.

4.2 Test of Hypotheses

Table 4: Correlated random effects (Hausman test)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.730946	0.295014	9.257014	0.0000
OPR	-0.047797	0.012396	-3.855971	0.0002
RAT	-0.007185	0.002553	-2.814735	0.0057
	Effects Specification			
			S.D.	Rho
Cross-section random			0.559434	0.1218
Idiosyncratic random			1.502015	0.8782
	Weighted Statistics			
R-squared	0.059544	Mean dependent var		1.583203
Adjusted R-squared	0.044734	S.D. dependent var		1.534235
S.E. of regression	1.499526	Sum squared resid		285.5695

F-statistic	4.020461	Durbin-Watson stat	1.790616
Prob(F-statistic)	0.020276		
	Unweighted Statistics		
R-squared	0.049335	Mean dependent var	2.446154
Sum squared resid	321.4419	Durbin-Watson stat	1.590786

Source: E-Views 10

The dependent variable was Bank Rating, with the method used as Panel EGLS (Cross-section random effects). The period spanned from 2012 to 2021, i.e., 10 years and the Cross-sections included were 13 (i.e., Total panel (balanced) observations = 130). The estimation procedure is the white cross-section standard errors & covariance (d.f. corrected). The output shows the values of R-squared (0.059) and Adjusted R-squared (0.044), the adjusted R-squared explains the amount of variance in the dependent variable (FSF), i.e., on approximately 4.5% of the variation in FSF is accounted for by the explanatory variables. Despite the low R-Squared values, the model's statistical significance was determined using the F-statistic (4.020), which produced a p-value of less than.05. The model has explanatory power, according to the F-test, at significance levels of 1 and 5%. This suggests that the model is valid for statistical inference. The Durbin-Watson statistic is a test for autocorrelation in a regression model's output. The observed value of 1.790 is below 2; which suggests that there is a positive autocorrelation.

4.2.1 Hypothesis One

Ho_1: There is no significant effect of opportunity on financial statement fraud in deposit money banks.

The coefficient and t-statistic of our variable of interest (OPR) are negative and statistically significant [t-statistic -3.855971), p (0.00, <.05)]; thus, the alternate hypothesis is accepted and null rejected. Therefore, "There is a significant effect of opportunity on financial statement fraud in deposit money banks". This finding was supported by Christian, Basri, and Arafah (2019) using a sample of 310 firms in Indonesia analyzed using the OLS technique showed that the fraud pentagon had a significant effect on corporate fraud. Using a sample of firms listed on the Indonesia Stock Exchange, Nindito (2018) and a sample of 28 companies with data from 2013 to 2015 showed that the independence of the audit committee as a proxy of opportunity has a significant negative effect on financial statement fraud. Similarly, the study by Salami and Olabamiji (2021) on a sample of 14 listed DMBs over six years (2012-2017) analyzed using multiple regression techniques finds that

fraud has a negative and significant effect on profitability (proxied by return on asset) of listed DMBs in Nigeria.

4.2.2 Hypothesis Two

Ho_2: There is no significant effect of rationalization on financial statement fraud in deposit money banks.

The coefficient and t-statistic of our variable of interest (RAT) are negative and statistically significant [t-statistic -2.814735), p (0.00, <.05)]; thus, the alternate hypothesis is accepted and null rejected. Therefore, "There is a significant effect of rationalisation on financial statement fraud in deposit money banks". This finding is supported by Christian, Basri, and Arafah (2019) using a sample of 310 firms in Indonesia analyzed using the OLS technique showed that the fraud pentagon had a significant effect on corporate fraud. Likewise, Mawutor, Enofe, Embele, Ndu, and Awodola (2019) on the effect of fraud on the performance of DMBs from 2006 to 2016 analyzed using Ordinary Least Square (OLS) revealed that the total fraud amount was negative and insignificantly affect the performance of DMBs. And, Nindito (2018) used the fraud pentagon model on a sample of 14 firms listed on the Indonesia Stock Exchange and 14 comparable companies from 2013 to 2015. The data were analyzed using logistic regression analysis. The results show that total accruals as a proxy of rationalization have significant negative effects on financial statement fraud.

Using a survey of public sector employees, Abdullahi and Mansor (2018) studied the elements of the fraud triangle theory using a quantitative approach finds that the presence of rationalization must be justified before a fraudster could commit a crime.

However, this is inconsistent with Devi, Widanaputra, Budiasih, and Rasmini (2021) in Indonesia that looked into how financial accounts were affected by the fraud pentagon conducted from 2014 to 2019 finds that fraud pentagon theory had a positive impact on financial statement fraud.

CONCLUSION AND RECOMMENDATIONS

According to the study's findings, the study concludes that opportunity and rationalisation can cause fraud in Nigerian Deposit Money Banks (DMBs). To ascertain the association between fraud incidences and the elements of opportunity and rationalisation, the study used a quantitative empirical analysis. The results revealed that there is a significant (negative) relationship between opportunity and financial statement fraud in deposit money banks, rationalisation and financial statement fraud in deposit money banks. Based on this the study recommends that:

i. The availability of opportunities during a review of financial transactions should be sought out by auditors. For example, in a world that is becoming more electronic, Nigerian bank employees and fraudsters frequently work together to steal corporate information to commit e-fraud against banks, using either their knowledge or their authority. Because of the threat that this poses to businesses from cyber exposures, more stringent security measures must be put in place.

ii. Auditors should look for the tendency to rationalise that some employees have because it plays a role in the fraud. The results showed that the audit tasks of risk assessment, system audit, and financial report verification are very important when the psychological trait of rationalisation is well understood.

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