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Review Article

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Fraud and Performance of Listed Deposit Money Banks in Nigeria: Exploring the Combined Effects of Fraud Triangle and Fraud Diamond Theories

Ojianwuna Chukwuekwu

Department of Accounting, Babcock University, Ilishan-Remo, Nigeria

*Corresponding author
Ojianwuna chukwuekwu, Department of Accounting, Babcock University, Ilishan-Remo, Nigeria.

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ABSTRACT
The rate of increase in fraud cases and the attendant decline in performance of the Deposit Money Banks listed in Nigeria demand urgent examination into the phenomena. In order to appreciate the probable nexus between fraud and performance of Deposit Money Bank in Nigeria, this scholarly work demonstrated the influence of fraud on the performance Deposit Money Bank in Nigeria. In doing this, the study used correlational and expo facto research design, utilizing secondary data pooled out from the Nigerian Deposit Insurance Commission (NDIC) and published financial reporting of the DMBs. The study targeted all the 29 DMBs (comprising of, 5 Merchant Banks and 2 Non-Interest Banks and 22 Commercial Banks) as at 2019 as published by NDIC for ten years period of (2010-2019). Multiple regression methods was deployed to calculate approximately the model of the work. Results from the study demonstrated that fraud triangle and diamond theories (measured by expected loss from loss from fraud, number of fraud cases and staff participation in deception scheme) have negative and significant effect on performance (measured by ROA) of DMBs in Nigeria. Flowing from the result, this scholarly work has suggested that DMBs have a duty to put in place effective and efficient internal control procedures and establishment of workable fraud unit or department that is saddled with the responsibility of detecting and scrutinizing operational activities that may possibly be prone to fraud. In this way, bank assets would be safe-guarded and, consequently enhanced performance.

Keywords: Bank Fraud, Expected Loss, Fraud Triangle Theory, Fraud Diamond Theory, Return on Asset, Nigerian Banks

Introduction

The evolution of the Nigerian banking system can be traced back to 1892, when the Africa Banking Corporation was established. After that, numerous added international and indigenous banks were formed. Many of the local banks were formed out of patriotic awareness, instead of reliance on the presence of applicable banking expertise and resources. Accordingly, quite a number of the banks failed in quick sequence, largely as a result of lack of regulation of banking activities, culminating in insufficient capitalization, deceitful conducts and poor management. This resulted to the promulgation of the 1952 Banking Ordinance. The main accomplishment of this ordinance was the limitation of banking to the formation of holding valid banking licenses; thereby bringing together more systematic commercial banking operations. The principal function of the banking sub sector in an economy is intermediation by mopping up funds and deposits from the surplus sectors for on lending to the deficit sectors to stimulate the economic events. Performance measurement systems are considered essential for evaluating firm goals' accomplishments, constructing development strategies, making decisions for investments, and compensating managers [1]. One of the significant issues in the emergent monetary and financial environment is the efficiency of the banking system. This is very disturbing as products and services offered by banks and largely intangible in nature.

Profitability is one of the most critical issues confronting the Deposit Money Banks (DMBs) in Nigeria, which is a fundamental concern and priority of all the DMBs in the country. This is because achieving shareholders' wealth maximization and long-term survival objectives are dependent on continuous profitability. DMBs need to earn enough profit to maintain their activities and enhance the expansion and growth of their banks. Shareholders and the management are not the only parties interested in the profitability of DMBs [2]. Other stakeholders, such as potential investors, depositors, supervisory authorities, employees and the government, are also keenly interested because the profitability of DMBs is fundamental to the existence and performance of even companies in other sectors of the economy. For the DMBs to achieve sound profitability, their primary responsibility is to provide financial intermediation

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efficiently and effectively. Financial intermediation entails the provision of links amongst the surplus and the deficit entities. In the same vein, the business of DMBs entailed fund mobilization, credit allocation, system involves in payment and settlement, and the execution of the monetary policy of the country [3]. Accordingly, financial intermediation promotes the performance of other sectors and the nation's economic growth as a whole. Failure of the DMBs to effectively carry out their intermediation roles might lead to a credit crunch [4]. The ability of the DMBs to perform their intermediation role is dependent on the level of public trust and confidence. According to Ogbechie and Koufopoulos, the business of the DMBs has been built on public trust and confidence [3]. Their role cannot be fulfilled without taking cognizance the trust and confidence repose on them by the public. Because public trust and confidence enabled surplus and deficit units to transact with the DMBs, in turn, they were able to perform their role as financial intermediaries effectively. Whether the DMBs can effectively perform their intermediation role is determined by public trust and confidence. According to Abas and Salami, the business of the DMBs has relied on public trust and confidence [2]. Only with such conviction and belief can the DMBs fulfill their role effectively. This was because public trust and confidence would facilitate the readiness of the surplus and deficit units to transact with the DMBs and, in turn, allowed them to perform their financial intermediation role.

However, public trust and confidence in the DMBS have deteriorated due to the occurrence of fraud. Fraud has become a significant threat to the DMBs in terms of profitability and survival. This is because it has not only destroyed the corporate image of the DMBs, it has also undermined the ethics of the banking profession. Ordinarily, for the DMBs to earn and sustain public trust, confidence and goodwill, they are expected to discharge their duties with absolute sincerity and integrity. It means that people expect fairness, accountability, transparency and effective intermediation from the DMBs. Unfortunately; the DMBs have failed in these expectations due to fraud and other unethical conducts. Fraud occurrence is very critical and more pronounced in the banking sector globally. This is basically because the stock-in-trade of a bank is cash [5]. Fraudulent activity was viewed as involving several actions embodied by willful deception for the advantage of or to the disadvantage of the business and can include staff and non-staff of an organization [6]. Its definition also comprises of the intentional use of trick to acquire unlawful gain or unfair advantage of others, such as misleading financial reporting, misappropriation, or accumulation of illegal assets [7]. According to Ihiagarajah, fraud in the DMBs involved a set of actions and conduct done to defraud a financial institution [8]. This could lead to a loss of money, assets, or other property. Banking fraud affects the foundation and credibility of most banks, as there will be serious implications for all the interested parties and the economy of a nation in general. It has remained the principal cause of bank downfall and anguish in the Nigerian banking sub sector of the economy, as experienced in the 1990s and 2008, and 2009. It has even led to the closure of some banks [9,10]. Banking fraud has become the leading cause of bank collapse.

Meanwhile, bank failure brings unspeakable adversity to stakeholders to such as shareholders, staff of the staff and clients. The majority of staff, both in banking and non-banking organizations, commit fraud. These acts are sometimes referred to as occupational fraud. Several categories of staff were affected, as even the CEOs would not be spared. This situation has become scary due to the involvement of CEOs who are expected to protect the interests of the other principals. Commercial bank executives, as well as bank officials generally, should share the same commitment and focus on effectively facilitating interbank financial transactions to lead to good profitability for their banks. However, there will be bank employees who will work against this expectation and engage in fraudulent practices, which means they will not achieve shareholders' objectives. Consequently, such actions will bring about a poor image of the bank for external stakeholders. Fraud involving high level officials in the bank has a high tendency of affecting the bank's performance. Pressure, opportunity, Rationalization and the capacity of the employees have contributed in no small measures to the increase in fraud perpetrated by the bank staff. Therefore, this work is hinged on the fraud triangle and diamond theories in investigating the association between fraud and bank performance. The reason for this is that the theories explain the four explanatory variables (apparent rationalization measured by number of reported cases involved in the fraud, perceived pressure proxy by losses expected from the fraud, perceived opportunity measured by monetary value concerned on fraud and capacity measured by number of staff participation in fraudulent act). Cressey concentrated his study on the reason that drives persons to involve in dishonest and unscrupulous practices [11]. The rationale of this work is to assess the consequence of fraud triangle and Fraud Diamond components, pressure, apparent opportunity, Rationalization on the performance (measured by Return on Asset), of DMBs in Nigeria. It also aimed at ascertaining the effect of staff involvement (capacity) in fraud on the return on asset of DMBs in Nigeria

Research Hypotheses

This study would test the following hypotheses:

$H_0$1: Perceived Pressure has no significant effect on the Return on Assets of Deposit Money Bank in Nigeria

$H_0$2: Perceived Opportunity does not significantly affect the Return on Assets of Deposit Money Bank in Nigeria

$H_0$3: Rationalization of fraudulent practices does not have significantly effect on the Return of Assets of Deposit Money Bank in Nigeria

$H_0$4: Capacity of a fraudster does not have any significant effect on Return on Asset of Deposit Money Bank in Nigeria

The a-priori expectation of the research work was that $H_0$1-$H_0$4= $\beta < 0$

Literature Review

Conceptual Framework

Concept of Fraud

As submitted by Anand, fraud is a debated phenomenon as quite a lot of definitions emerge which is largely dependent on organisational world views of what constitute ethical and unethical practices. Anand et al. contended that numerous categories of fraud exit to wit: fraud orchestrated by staff of the organization, which can also be referred to as occupational fraud and fraud perpetrated by external individuals. This study focuses on the fraud perpetrated by both internal and external individuals against banks. The disposition of offenders towards their employers could influence their judgments to commit jobrelated fraud, which can swing contingent on the fraudster's situation external to the work [12]. The threat of deceitful acts to a business is on the rise, especially with the rise of sophisticated fraud schemes involving financial transactions in the age of technological advancements [13]. Detecting and deterring fraud requires understanding the variety of fraud schemes, including employee theft, vendor fraud, and corruption. There must be a wrongdoer, a victim, and no safeguards or controls in place for fraud to occur. Oyedokun explains that Internal Fraud schemes are typically fabricated by staff within a firm [13]. An Internal Fraud scheme is one structured at the risk of unanticipated pecuniary, substantial or loss of image resulting from the fraudulent activities of a person who works within a firm. Fraud has been defined at innumerable times and circumstances by multiple academics. For illustration, the Oxford Dictionary states that fraud as unlawful dishonesty concerning a person or thing that is not demanded. Adeboye posited that fraud is an intentional and premeditated effort geared towards gaining illegitimate monetary gains at the disadvantage of someone who is the legal possessor of the property/ fund. Adewunmi opined that fraudulent act is a "conscious premeditated action of a person or group of people to alter the truth or a fall for selfish monetary gain", further to the above, sees fraud as every act of chauvinistic dealing even if it is perpetrated by employee of the bank, or by external individuals or the one perpetrated by the staff of the bank against customers [14]. Occupational fraud is usually referring to fraud perpetrated by a staff of an organization.

Three types of schemes can be distinguished: misappropriation of assets, corruption, and financial statement fraud [12]. Occupational fraud also known as fraud committed by employees against their employers, is the commonest fraud usually committed against businesses that are smaller [15]. Peltier-Rivest and Lanoue posited that assets misappropriation is amongst the greatest regularly happening work-related fraud acts amongst all deceitful schemes [16]. Though, employee related fraud impacts an organization within and outside also [16]. The business entity would lose its assets and income as well as reputation as a result of fraudulent practices. Banks are more prone to employee fraud because of the sensitive of the work and the stock in trade is usually cash.

Types of Fraud

According to Wanjohi, fraudulent scheme was categorized in numerous methods by means of dissimilar bounds such as the one involving management, most often repeatedly perpetrated by those charged with governance to wit; tactical managers, and the sufferers of such deceitful acts are shareholders, lenders and authorities in charge of tax administration. Many a time, it is usually orchestrated through a financial statement through imaginative accounting. There is also a variant of occupational fraud, which the staff of the bank of the banks principally perpetrated [17]. Occupational fraud is essentially exclusively by cash larceny from the bank cash register, falsifications of the initials/signatures of customers to fraudulently remove funds from the accounts of the customers, on-boarding of customers and operational of untrue accounts, and unlawful funds movements from one account to another [18,19]. Another variant of fraud is the one committed by clients of the bank and external parties to wit: fraudulent cheque scheme, cross firing and kitting of cheques, falsification and imposture, fraud involving securities, funds transfer scam, cheque clearing scheme, letter of credit racket, and fraud related to cards. Frauds in bank could be categorized into three viz: by flow, by targets, and by action.

Emerging Fraud patterns in the Banking Industry

Fraud comes in different forms, patterns, styles and approaches. Perpetrators of fraud employ different techniques to achieve their objectives. The techniques adopted by fraudsters are usually in sync with trending activities or technology and seek to exploit apparent weaknesses in target system.

In view of the trending technological innovations and process adjustments, lot of fraud techniques has emerged in recent time. Recent and emerging fraud patterns involve both internal and external fraud. Some of the emerging internal fraud techniques include as highlighted by Soluade include [20]:

a. **Expense Fraud and Abuse:** As noted by Soluade, there have been increases in the rate of expense fraud and abuse by branch management and officers (Branch Head, Head of Operations and Cash Officers) [20]. This fraud and abuse aim to enrich the perpetrators and usually involves the following techniques: Expense/Contract splitting - to evade further probing and review by a higher approving authority and keep expense within the approval limit of the perpetrator(s) of fraud, Price Inflation - This may or may not involve collusion with suppliers and/or contractors. The prices on the invoice are inflated and the 'profit' is shared among the perpetrators, Unauthorized expenditure - several cases have been reported of branches incurring certain suspicious expenditure without necessary management approvals e.g., security expenses, cash movement expenses, gifts and donations.
b. **Diversion of Customer's Deposits:** Incidents involving suppression and/or diversion of customer's deposits are becoming rampant among Account Officers. Such cases come in the following forms: Diversion of customer's initial deposit for account opening, Conversion of deposits in customer's account (e.g., unauthorized liquidation of fixed deposits), Involvement in customer's transactions, executing instructions on customer's behalf and diverting customer's funds, Forgery of customer's signature on debit instructions to withdraw from customer's account (e.g., withdrawal by proxies on savings accounts).
c. **Conflict of interests:** intermediating in business transactions between customers and profiting from brokerage on the transactions (e.g., FX brokerage, arranging lending deals between customers).
d. **Divulging Customers' Account Details to Fraudsters by banks staff:** In recent times, banks have had to deal with various cases involving breach of confidentiality of customers' information and unauthorized access to customers' details on the system. In most of the cases, the breaches subsequently resulted into frauds on the accounts of the affected customers. Further investigations revealed that there has been a rise in deliberate breaches of customer's information secrecy by some of the bank's staff who collude with fraudsters to defraud customers' accounts as follows: The fraudulent insider (staff) extracts customers' account details from the system or files. Such details include:

debit/credit card PAN and expiry dates, account balances, telephone numbers, signatures etc. The fraudulent insider releases the extracted customers' details to a syndicate of fraudsters in exchange for share of the fraud proceeds. The external fraudsters use the compromised customers' information to defraud the affected customers' accounts on various banking platforms such as USSD, internet banking, corporate i-bank, ATM withdrawals, POS purchases etc.

e. **E-Fraud (Electronic Fraud):** The recent e-fraud techniques thrive on identity theft and account take-over using social engineering techniques and data theft (phishing, vishing, smishing, malware etc).

Concept of Performance

The substantial changes that have happened in the financial sector of emerging economies like Nigeria have amplified the significance of the performance review of contemporary banks. Casu noted that performance evaluation is a critical tool utilized numerous bodies functioning either within the bank or an integral part of the bank's outside working setting. This is why shareholders and creditors of banks consider the investment product prior to creating a judgement regarding the capability of its management. Rational ways of gauging the performance of banks and other business organizations is financial analysis. Financial examination is, therefore, the procedure of categorizing the financial strengths and weaknesses of an organization by appropriately creating the association between the elements of statement of financial position and income statement.

Return on assets (ROA), which is also known as return on total assets, measures the extent of profit an organization is generating in relation to its assets. This performance ratio establishes the percentage progression rate in earnings in relation to the assets controlled by an organization produce. Return on assets communicates to investors how proficiently an organization creates profit increase from the capital it has been contracted, inclusive of debt and equity. This parameter relates comparable organizations or governs the way a firm has achieved over diverse times.

Empirical Review

The past two decades have witnessed a dramatic increase in the enthusiasm of researchers and operators in the space of deceitful financial statement [2,6,11,17,21-31]. These scholars have investigated the nexus between banks performance and fraud utilizing the fraud triangle and diamond theories.

Agbo and Okike conducted an empirical study on occupational frauds in Deposit money banks in Nigeria [22]. Outcomes from the paper exposed that figures for the number of bank staff engaged in scam do not influence the extent of fraud of the Nigerian DMBs. Also, Murital, Ijaiya, Afolabi, and Yinus assessed the interconnection between fraud and bank performance in Nigeria [21]. The result of the study discloses the existence of a straight connecting association between fraud and bank performance, as the rise in dishonest practices in the banking subsector stimulates a decrease in the performance of bank.

Abass and Salami considered the influence of fraud on the profitability of DMBs in Nigeria, and the findings indicated that fraud (measured by actual or real damage from fraud and employee participation in fraud) indicates a negative and material influence on performance (measured by return on asset) of DMBs quoted in Nigeria [2].

In another development, Inaya and Obasuyi evaluated the influence of fraud on the financial performance of Nigerian Banks [28]. Findings from the research showed that deceitful activities have significant and adverse effect on the financial performance of banks listed in Nigeria.

Araga and Jelili examined the effects of fraud and forgery on the operations of the banking subsector in Nigeria [23]. Findings from the scholarly paper discovered that reported number of fraud and forgeries indicate significant and encouraging influence on performance of banks in Nigeria. However, the totality of amount recorded in the fraud indicates a negative signal and is an important predictor of the extent of performance of bank in Nigeria in the intervening period of the investigation. The actual amount loss to the fraud has not substantial influence on the performance of bank in Nigeria.

Kolapo and Olaniyan investigated the influence of fraud on the performance of deposit money banks in Nigeria [25]. The regression analysis results discovered a negative association between bank performance of bank and fraud; however, the z-test displays that performance of deposit money bank was impacted by fraudulent activities.

Further to the above, Akintola and Oluwalaiye studied the influence of fraudulent scheme in the Nigerian banking subsector [26]. Outcome of the research indicates that there is a direct connection between deceitful behavior in the Nigeria banking subsector and the anticipated loss of the banking industry.

Inaya and Isito examined the societal effect of fraud on the Nigerian banking industry [28]. Findings revealed that banks in Nigeria are expressively involving in a great degree of irregularity. Further to the above, the scholarly work of Nwankwo assessed the nexus amongst fraud and banks' performance and discovered revealed that there exists a substantial impact of deception the performance of money-making bank in Nigeria [30]. Likewise, Abdulrasheed investigated how performance of bank in Nigeria [27]. The result disclosed a considerable connection between the totality of amount concerned in fraud and bank performance. Similarly, Onuorah and Ebimobowei studied the association between deceitful practices and forensic accounting in the Nigerian banking sector [32]. Findings revealed that banks in Nigeria have to put in place more pragmatic strategies such as forensic accounting practises. The empirical work of Okorafor examined the association between the performance of bank in Nigeria and fraud utilizing inferential and descriptive statistics. The outcome of the investigation revealed a positive association between deposits mobilized by bank in Nigeria and fraud. Utilizing primary data, Chiezey and Onu analyse the effect of deception and fraudulent conducts on bank performance in Nigeria for a period of 2001 to 2011 [31]. Findings from the study showed that the proportion of mop up funds lost as a result of fraud was huge between 2001 and 2005 but significantly decreased between 2006 and 2011. The study further revealed that the deceitful practices resulted in banks and their customers to have financial challenges. Dada and Olaoye investigated the association between pattern, reasons, impacts, and prevention and detection strategies for deceitful bank operations in Nigeria [6]. The inquiry indicated that banks ought to attempt to have suitable internal control machineries and the employee of the bank remunerated appropriately. Further to the above, Adeyemo explored the bases and implication of fraud on the banking sector in Nigeria, and observed that the fight for revealing, reclusion, and reprisal of deceitful practices must be treated from two all-embracing circumstances [3]. The research work of Akindele studied the use and shortcomings of Automated Teller Machine (ATM) and scam in banking sector in Nigeria [14]. Findings indicated that an information dissemination gap, inadequate training of staff and paucity in leadership aptitude were the major contributors to fraud in banks.

Theoretical Framework

The Fraud Triangle Theory

In 1973, Donald Cressey formulated the classical theory of the fraud triangle. Cressey announced that deceit is expected to happen if blends of these three features exist - Pressure (Motivation), Opportunity and Rationalization [11]. Pressure is the incentive of the individual to perpetrate scam, typically a pecuniary problem. He specified that all fraud committer is inclined by the financial stress and individual is passing through. This forms the bases for a motivating influence for the person to commit illegal practices to meet the anticipation. Opportunity denotes the technique through which the wrongdoing might be perpetrated. It is a crucial component in the theory of fraud triangle, as a probable offender might have the craving to perpetrate fraudulent activities, but lacking the apparent opportunity, the fraud could not likely take place. In order way, Rationalization defines the way the person justifies the action in his own mind, orchestrating the fraud. It helps to validate or justify an illegal practice in such a manner that justifies it appropriate in the mind of the offender. This could arise when a bank employee begins to have a sense of dissatisfaction in a workplace, meager remuneration, lack of gratitude, etc. Cressey opines that trusted individuals become trust offenders when they believe they have an ongoing financial burden that they feel cannot be shared and believed the problem can be resolved covertly by misuse of financial confidence, and this can apply to their conduct in those circumstances [11]. Cressey also stated that apparent opportunity may occur as soon as the offenders observe a technique to utilized their place of confidence placed on them to resolve the financial difficulties, believing that the fraud may not be uncovered Regarding Rationalization, he opined that most offenders are committing the fraud for the first time and do not have criminal background. They perceive themselves as normal, truthful individuals who are trapped in an awful condition. This inspires them to rationalize their illegal conducts in a manner that makes that makes them suitable or reasonable. "Trusted persons are trust violators when they assume they have a non-shareable financial problem and apply verbalizations that enable them to adjust their view of themselves as trusted persons to their view of themselves as users of entrusted funds or assets." This proposition has been known as theory of fraud triangle over the years.

Fraud Diamond Theory

Theory of fraud, as espoused by Wolfe and Hermerson, posited that an individual's capacity, disposition, traits, and skills can determine to a larger extent if fraud could happen [32]. Whereas opportunities can unlock the entranceways to fraud, incentive and Rationalization will entice individual to it. Still, the identified individual should possess the competence to identify the visible entryway as an opportunity and ought to have the capacity to take unfair gain of the observed weaknesses in the control environment. The component of capacity is an additional to the three exiting elements of the theory of triangle of fraud. Wolfe and Hermanson contended that, even though there exist apparent pressure, opportunity and a rationalization, fraud is not likely to happen unless the fourth component - capability is well in existent. That is to say, the potential offender must possess the required abilities and skills to orchestrate fraud [33].

Wolfe and Hermanson upheld that opportunity unlocks the entranceway to fraud, incentive and Rationalization compel an individual in the direction of the entranceway [33]. Capacity allows the individual to identify of the unlock entranceway as an opportunity, and to utilize the benefit of it by repeatedly exploit the identified vulnerability.

The Nexus connecting Fraud Triangle and Corporate Fraud

The idea of the cause of fraud is what Cressey referred to as fraud triangle [11]. This theory explains three factors that could be evident in a situation of a typical fraud to wit: pressure, opportunity, and Rationalization. As highlighted by the ACPAI in the Statement of Auditing Standards (SAS) No. 99, four categories of circumstances usually evident at the pressure level that can cause fraud to occur: quest monetary stability, outside pressure, individual financial need, and monetary expectations. Another constituent is opportunity which comprises of three kinds of circumstances, inclusive of the peculiarity of sector of the industry, lack of effective supervision, and structure of the organization. The last element that brings about the occurrence of fraud is Rationalization. Rationalization provides basis for offenders to defend their activities.

The Linkage connecting Fraud Diamond and Corporate Fraud

According to Wolfe and Hermanson, fraud diamond is to perfect the theory of fraud triangle enunciated by Cressey [11,33]. The components added in the theory of fraud diamond include pressure, opportunity, Rationalization and capacity. Wolfe and Hermanson specified that the fraud triangle theory was perfected to accentuate the skill to discover and avert business scam by the addition of the fourth component, which is capability. Many frauds orchestrated in a corporate environment are generally massive, and would not be possible if there is not an individual with distinct capacity in the entity [33]. Opportunity opens a doorway for fraud, pressure and Rationalization inspired an individual to perpetrate deceitful acts. The following three aspects can be observed to predict fraud: 1). an authorized position or role within the company; 2). the organization's accounting system and weaknesses in its internal controls; 3). the self-assurance that he/she might not be discovered or fraud been noticed with ease; 4) the capability to handle with inordinate anxiety that comes up in appropriate situation when he/she commits fraudulent acts. Wolfe and Hermanson, opined that fraud in an organization may not occur in the absence of individuals who possess the capability to orchestrate fraud [33]. These capabilities are the traits of persons to perpetuate illegal acts, which motivates and propel them to search for opportunities and take advantage of same. An offender must have adequate capabilities to identify these opportunities to perpetrate the fraudulent activities appropriately.

The Theory of White-Collar Crime

This is the groundwork of theories of fraud. According to Dorminey, Fleming, Kranacher and Riley, the 1940 study of Edwin H. Sutherland is associated with the word "white-collar crime [34]." Whereas previous criminologists and sociologists concentrate largely on road and fierce wrongdoing, Sutherland was the original person to assimilate criminalities of the higher white-collar category with finances and commercial action. White-collar wrongdoings are seen as same grievous offense like street offenses, there could be a penchant amongst many to understanding white-collar offenders as same thing as highway offences [35]. The postulation, albeit, is erroneous and signifies an inexact picture of "the white-collar criminal." Bank burglars and other related crimes often make funny errors like putting robbery notes on trial documentation cards, leaving the escape locks in the expediency stock, utilizing as armaments, and effectiveness of the robbery to get stuck [36]. At that time, there is the typical story of a burglar who came across his personal mum at the bank. Tactics to avoid crimes of the street could concentrate on communal construction and reduction of poverty; avoiding white-collar wrongdoing is considerable quite complicated. The implication of prosecution and imprisonment is similarly amongst street lawbreakers and white-collar wrongdoers [37]. Whereas such measures could essentially permit highway lawbreakers to advance "peer group due to white -collar offenders would not experience the same increase in status as the result of a conviction. Basic recognition of the differences between street and white-collar offenders helps promote more effective prevention and intervention strategies [38]. On a more complex level, recognizing these differences fosters a more objective and accurate understanding about the dynamics, causes, and consequences of white-collar offenders" behavior.

Methodology

This scholarly study adopted expo- facto research design. In carrying out this investigation, data from the secondary sources were generated from the yearly publication of Nigeria Deposit Insurance Commission (NDIC) and statistical bulletin of the CBN. The population is the 29 DMBs (comprising of, 5 Merchant Banks and 2 Non-Interest Banks and 22 Commercial Banks) as 2019 as published by NDIC. The data were log-linearized. This reason for this was to align the data to the similar platform, thus allowing the analysis of results easily. The data used was for the 10 years' spans from 2010 through 2019. The analysis was carried out using the micro soft Excel statistical package.

Model Specification

To test the hypotheses stated and accomplish the objective of the research, the multiple Regression model was adopted as specified hereunder:

The model for this study is derived from the study of Abass and Salami, as indicated below [2]:

$ROA_{it} = \beta_0 + \beta_1 ALF_{it} + \beta_2 SIF_{it} + \beta_3 FS_{it} + \varepsilon_{it}$

We, therefore, modify the model to suit the objective of the study

Performance = f (fraud)

$ROA_{it} = \beta_0 + \beta_1 ELF_{it} + \beta_2 AIF_{it} + \beta_3 NFC_{it} + \beta_4 NSI_{it} \varepsilon_{it}$

Denoted as:

ROA: Return on Assets (Measure for Bank Performance)

ELF: Expected Loss on Fraud (Measure for Perceived Pressure)

AIF: Amount involved in Fraud Cases (Measure for Perceived Opportunity)

NFC: Number of Fraud Cases (Measure for Perceived Rationalization)

NSI: number of staff involved (Proxy for Capacity)

ε_t = Error term

Analyses and Discussion of Results

The table 1 will be estimated with the aid of the computer Excel Data Analysis, in which the functional relationship between independent and dependent variables will be estimated using OLS.

Table 1: Data Presentation

Year	ROA	ELF (N'Million)	AIF (N'Million)	NFC	NSI
2019	2.3	2.67	204,652.00	52,754.00	835
2018	2.2	38.92	38,926.00	37,817.00	899
2017	2	19.75	12,012.00	26,182.00	320
2016	1.48	27.6	8,683.00	16,751.00	231
2015	2.23	17.61	18,021.00	12,279.00	425
2014	2.29	24.18	25,608.00	10,621.00	465
2013	2.33	25.03	18,045.00	3,380.00	531
2012	2.33	15.21	28,400.00	2,352.00	498
2011	-0.04	54.85	21,291.00	1,531.00	357
2010	3.91	18.29	41,265.00	1,764.00	656

Source: Adapted from NDIC ANNUAL REPORTS (2010 -2020)

As depicted in the Table 2, return on assets (ROA) indicates the least mean and standard deviation values of 2.103 and 0.9694. In contrast, the amount involved in fraud cases (AIF) indicates the maximum mean and standard deviation figure of 41690.3 and 58219.28. The mean and the standard deviation value of expected loss in fraud (ELF)is 24.411 and 14.183. The mean and standard deviation of the number of staff involved (NSI) and number of fraud cases (NFC) are 16543.1; 217.0709 and 16543.1; 17411.53, respectively

Table 2: Descriptive Measurements on Fraud and Bank Performance Variables

	ROA	ELF	AIF	NFC	NSI
Mean	2.103	24.411	41690.3	16543.1	521.7
Std. Dev	0.969467781	14.18302855	58219.28003	17411.53193	217.0709

Source: Data source (2021)

The regression results of the association among the pair of components of fraud as enunciated by Cressey on his theory of fraud triangle the whole model as indicated in Table 3, showed that there exists an inverse relationship amongst the three components of fraud namely; expected loss on fraud (ELF), proxy by pressure; amount involved in fraud (AIF), proxy by opportunity and also with the number of fraud cases (NFC) proxy by Rationalization and bank performance (ROA). This is in consonance with our a priori expectation. However, the number of staff engaged in the fraud (NSI) proxy by capacity, as indicated in the diamond theory, showed a directional relationship. This means that number of staff involved in the fraud did not negatively affect ROA. This also means that this variable has no influence on the performance of the DMBs in Nigeria in the period under examination.

Table 3: Results from Regression Analyses

<table>
<tr><td></td><td colspan="2">Coefficients</td><td>Standard Error</td><td>t Stat</td><td>P-value</td></tr>
<tr><td>Intercept</td><td colspan="2">2.443163037</td><td>0.552143328</td><td>4.424871</td><td>0.006860767</td></tr>
<tr><td>ELF</td><td colspan="2">-0.062412537</td><td>0.013329994</td><td>-4.68211</td><td>0.005423296</td></tr>
<tr><td>AIF</td><td colspan="2">-1.07259E-05</td><td>4.82326E-06</td><td>-2.2238</td><td>0.07676092</td></tr>
<tr><td>NFC</td><td colspan="2">-1.34917E-05</td><td>1.33435E-05</td><td>-1.01111</td><td>0.358365295</td></tr>
<tr><td>NSI</td><td colspan="2">0.00355329</td><td>0.000972937</td><td>3.652127</td><td>0.014715492</td></tr>
<tr><td></td><td colspan="2">Adjusted R2 Square
R Square</td><td>0.758894626
0.86605257</td><td></td><td></td></tr>
<tr><td>ANOVA</td><td colspan="2"></td><td></td><td></td><td></td></tr>
<tr><td></td><td>df</td><td>SS</td><td>MS</td><td>F</td><td>Significance F</td></tr>
<tr><td>Regression</td><td>4</td><td>7.325774142</td><td>1.831444</td><td>8.082019303</td><td>0.020784</td></tr>
<tr><td>Residual</td><td>5</td><td>1.133035858</td><td>0.226607</td><td></td><td></td></tr>
<tr><td>Total</td><td>9</td><td>8.45881</td><td></td><td></td><td></td></tr>
</table>

Dependent Variable: ROA.
Source: Researcher's Work (2021)

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