Innovations

Determinant of Financial Statement Fraud Likelihood in Nigeria

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Abstract
The goal of this study is to find outwhether a firms' asset structure is a likely determinant of financial statement fraud of Nigeria's listed commercial banks. This study takes the banking sector into consideration because the industry is one of the most vulnerable institutions for financial incidents due to many regulations and financial transactions which occur in the sector. For the period between 2010 and 2019, data from annual financial reports of 13 listed commercial banks is analyzed. The data was subjected to binary logistic regression analysis technique, and the results suggest that asset structure in terms of capital expenditure, is a positive significant determinant of financial statement fraud.This outcome implies that increased provision for capital expenditure resulting from free cash flow increases the chances that managers will manipulate financial statement information. Specifically, the study recommends that investment in capital expenditure should be accompanied with onsite valuation recognition and auditing and if need be forensic audit investigation may also apply. The information provided in this study is valuable to auditors, regulators, investors, and other users of financial statements.

Keywords: 1.*Financial Statement Fraud, 2.Asset Structure, 3.Capital Expenditure, 4.Beneish M-Score Model 5. Binary Logistic Regression*

Introduction

In todays' corporate world, fraud is a common phenomenon in both the financial and non-financial sectors. Aptly regarded as a fraud of financial statement,fraudulent financial behavior is the manipulative intentional or unintentional activities carried out by preparers of financial statement with the aim of deceiving the public and other users of financial reports(Ismiyanti&Prastichia 2015). Particularly, Kingsley (2012) document that the industry that is most vulnerable to fraud is the banking industry due to very strict report regulations on each transaction.The Association of Certified Fraud Examiners Indonesia (ACFE,2017) estimate that the losses generated by fake financial statements were $6.3 billion USD worldwide. InRahmayuni& Sri, (2018) financial statement fraud that occurred in the banking sector suggest that the banking internal control itself is still weakand lack good governance system. Over the decades, good governance in the banking industry has decreased (LPPI, 2018; Hartanto &Purnamasari, 2019) leading to proliferation of fraudulent financial statement practices and fraudulent funds.

Extant literature suggests the need to investigate fraudulent financial activities from an incentive dimension. From the incentive view, past studies suggest that employee diff, may influence a firm revenue fraud with a high risk. In view of this, Brazel, Jones, and Zimbelman (2009) report that fraudulent organizations have more inconsistenciespertaining the patterns that exist between non-financial measures (employee growth) and financial

measures (revenue growth) than non-fraudulent firms. Hence, the company's financial performance which is not parallel with non-financial figures may be a clue to accounting fraud. Another incentive view which is the free cash flow have been documented to provoke fraudulent practices (Sulistiawan, Januarsi&Alvia 2011). Although there is no theoretical evidence on the relationship between free internal operational funds and investment, but empirically the study of Razaee, (2005) reveals a strong correlation between excess cash and investment. Free cash flow can be used to fund capital expenditures, which are considered the most essential business decisions since they affect shareholders' wealth, the firm's long-term viability, give a competitive edge, and improve society's general economic welfare (Taipi&Ballkoci 2017). To improve financial performance, maximize income, and maintain market competitiveness, businesses spend large amount of money on capital expenditures.Capital expenditures are a form of asset that indicates a company's primary resource allocation.Buildings, equipment, and machinery are examples of fixed assets that increases a company's production capacity and thus its long-term profit.

Firms' management prefer to invest free cash flow rather than pay dividends (Agrawal &Zong, 2006). However, shareholders will benefit from investments with high yield prospects, and vice versa. But, when management makes a poor investment decision, there is a possibility thatthey will hide such poor performance from investors. To mislead the shareholders about the company's prospects, managers may report the firms' performance with fraudulent information (Chung, Firth, & Kim, 2005). However, one known method that can be employed to increase trust, improve security, and minimize risk arising from financial transactions is to minimize the losses incurred from fraudulent transaction which suggest that preventing and detecting fraudulent actions will have a direct impact on the application of safe and healthy banking practices (Hartanto &Purnamasari, 2019). Effective preventive measures will be able to reduce the cost of investigation and detection. Extant studies show that good corporate governance may improve monitoring system of the company. However, as accounting manipulation cases persist, scholars' re-question the effectiveness of firm monitoring mechanisms. Therefore, this empirical study is conducted to examine whether provision for asset through capital expenditure motivate managers to practice fraudulent financial transactions. However, we note that to the knowledge of the author similar studies have not been conducted using Nigerian data.In continuation, the next section builds on a review of key concepts of this study, theoretical framework, and review of related existing literature. Section 3 presents the methodology of the study while section 4 provides analysis and result presentation. Section 5 offers the conclusion and important implications.

Literature Review

Financial Statement Fraud

A broader understanding of financial statement requires a look at the various definitions of fraud. As defined by the Institute ofInternal Auditors (IIA) (2001) fraud is "an array of irregularities and illegal acts characterized by intentional deception". Elliot & Willingham, (1980) and Robertson (2002) define fraud more broadly as "all means that human ingenuity can devise, and which are resorted to by an individual to get an advantage over another by false suggestions or suppression of the truth". Surprises, tactics, cunning, deception, and any other unethical means of defrauding another person are all examples of this form of fraud.With a few exceptions, the definition of financial statement fraud is virtually the same as that of fraud. The International Standard of Auditing (lSA) 240 (IAASB, 2007) defines corporate fraud as "an intentional act by one or more individuals among management, those charged with governance, employees or third parties, involving the use of deception to obtain an unjust or illegal advantage". As a result, financial statement fraud is deceit committed by a company's management in order to artificially boost the company's financial performance and results as reported in the financial statements.Overstating assets and revenue while understating liabilities and expenses is the most prevalent way to achieve this.

Asset Structure

Asset structure shows the amount of funds allocation in each portion of assets. The allocation is important, because it is related to the amount of funds needed for firm long-term's aim, which will determine investors' perception towards the firm.The goal of asset management is to provide the required level of services at the lowest possible cost by combining management, financial, economic, engineering, and other practices applied to physical assets.It takes into account the entire life cycle of physical and infrastructure assets (design, construction, commissioning, operating, maintaining, repairing, modifying, replacing, and decommissioning/disposal).According to Sudana(2015), asset structure is a comparison between fixed assets and total assets. The composition of the company's intangible fixed assets in large numbers will have the opportunity to obtain additional capital from the loan, because fixed assets can be used as collateral to get loan. Higher assets structure of a company shows the higher ability of the company to guarantee long-term debt that is borrowed.

Capital Expenditure
Capital expenditure refers to a situation where a business expends funds on buying fixed assets or increasing value to an existing fixed asset with a useful life that extends beyond the taxable year(McConnell &Muscarella, 1985).It refers to funds used by businesses to acquire or improve physical assets such as real estate, industrial buildings, or machinery.Capital expenditures are generally expected to generate long-term economic benefits that extend beyond a fiscal or tax year.Capital expenditure, as it relates to investment policy, is a component of financial policy that has a significant impact on the company's worth.When a corporation plans to expand its business by boosting production capacity, modernizing or building plants, or other capital budgeting modifications, this policy is typically invoked.

Asset Structure and Financial Statement Fraud
Capital expenditure (proxy for asset structure) is an investment that entails an outlay in the present, in exchange for a payoff in the future. Future payoffs are expected to outperform the investments, resulting in a return that will boost firm's value and maximize shareholder wealth. The foregoing forms the basis of the theory that the effect of capital expenditure can lead to financial statement manipulation. Al Farouque, Tony, Dunstan, and Karim (2005) find that capital expenditure have a positive influence on financial statement manipulation. Similarly, Olatunji et al. (2014) documents that fixed asset investments have a strong positive statistical impact on financial statement manipulation for selected Nigerian commercial banks. However, in contrast, Okwo et al. (2012) finds a weak relationship between fixed asset investment and operating profit for Nigerian brewery firms. Therefore, following on the inconsistent outcomes obtained from prior related studies, this study hypothesized as follows:

HO_1: Asset Structure is not a significant determinant of financial statement fraud likelihood of listed commercial banks in Nigeria.

Theoretical Framework

A-B-C Model

The A-B-C model proposed by Ramamoorti et al. (2009) categorizes fraud as follows: a bad Apple, a bad Bushel, and a bad Crop. The bad apple refers to an individual who commits fraud, the bad bushel refers to collusive fraud where collusion amongst management personnel allows the perpetration of fraud. It indicates group dynamics and relationships amongst top management personnel which typically facilitate fraud. The bad crop refers to cultural and societal mechanisms that influence the propensity to commit fraud. The bad crop refers to a lack of a strong ‘tone at the top’ which emphasizes the legality and ethicality of all actions, either at the organizational or societal level which eventually permeate through the organization and possibly culture and society (Ramamoorti et al., 2009). The crisis in 2007–2008, where banks as a group aggressively gave out loans to ensure higher earnings in Nigeria is a prime example of a ‘bad crop’ where a culture of greed and corruption permeated throughout the respective banking systems and led to a loss of billions of Naira.Dorminey et al. (2012) posit that ‘once a practice, even an illegal one, becomes trendy, it may create pressure on companies competing for the same managerial talent, the same stock price appreciations, and the same customers to at least consider doing the same. Thus, inappropriate tone at the top could add to the pressures affecting the company which in turn could enable top management of companies to collude to circumvent existing controls and act fraudulently.

Empirical Review
Using the period between 2002 and 2016, Agbaje and Oloruntoba (2018) evaluated the impact of financial statement fraud on profitability of Nigerian manufacturing firms.Theirmain purpose is to determine if incorrect asset valuation influences return on assets, as well as to find out the relationship between improper expense recognition and return on assets.Secondary data was acquired from selected firms' financial reports and the Securities and Exchange Commission's website, while descriptive research approach was employed as research design. Their findings reveal that financial statement fraud and profitability have a significant relationship, while a positive relationship exist between incorrect asset valuation, inaccurate expense recognition, and return on assets.

Larune, Harahap, Silaban and Putri (2021) conducted a study to understand the effect of company size, leverage, and managerial ownership on financial reporting fraud. Financial reporting fraud is obtained by using the Beneish M-

score index while the population is taken from service companies within the service, trade and investment sub-sector of the Indonesia Stock Exchange (IDX) for the period 2017 to 2019. The research was conducted using quantitative methods with purposive sampling technique with a total of 96 observationswhile logistic regression analysis was employed as data analysis technique. From the data processing, it is concluded that managerial ownership influences the dependent variable while number of audit committee meetings, firm size, leverage does not have a significant effect on financial reporting fraud.

The study of Davidson (2016) showed that when market price sensitivity to earnings news is strong and their firms' stock price is considerably more sensitive to idiosyncratic earnings performance, managers conduct income statement fraud (fraud in which manipulations raise net income). When market-wide default risk is high and their enterprises have greater financial constraints, managers conduct balance sheet fraud (fraud in which manipulations raise net assets but have no effect on net income). The results hold in samples of fraudulent firms derived from Security and Exchange Commission enforcements, class action lawsuits, and a subsample in which fraud was detected internally or by employee whistleblowers

Matoussi and Gharbi (2011) examined the link between corporate financial statement fraud and the board of directors in a sample of 64 Tunisian enterprises, with 32 fraud firms matched with 32 non-fraud identical (control) firms.The findings reveal that governance characteristics of fraudulent and control firms differ significantly.Firms with a board of directors dominated by family members and fraud corrective control of outside directors are more likely to carry out financial statement fraud, underscoring the role of governance traits in explaining the probability of committing fraud.

Anichebe, Agbomah, and Agbagbara (2019) employed panel data obtained from listed agricultural firms in the Nigeria Exchange Group's (NGX) for the period between 2013 and 2017 to investigate the relationship between financial statement fraud and corporate governance.The data was analyzed using a binary logit regression technique, and the results show that corporate governance characteristics account for around 52 percent of the chances of committing financial statement fraud.According to the findings, agricultural enterprises should strengthen their board audit committee and enhance the number of corporate governance members with accounting and/or financial understanding.

Methodology

In this study, *ex-post facto* research design is employed. The population of the study consists of all seventeen (17) commercial banks listed on the floor of the Nigerian Exchange Group (NGX) as of 31st December 2019. The sampling technique employed is purposive since banks were included in the sample if they meet certain selection criteria. (1) sampled banks must be listed on the Nigerian Stock Exchange before year 2010. (2) Must have accessible annual reports (3) Must not be subsidiary bank. (4) Must provide all relevant informationneeded for this study. Our final sample resulted to 12 banks and Binary Logistic regression analysis technique was employed for the analysis.

Measuring Financial Statement Fraud

In this study,Beneish M-score model, developed by Beneish (1999) to predict the probability of financial statement manipulation, is used to determine the level of financial statement fraud. If the predicted M-score is larger than -2.22, it signifies a red flag, indicating the risk of financial statement fraud, or a strong likelihood of financial statement fraud by the banks. Over the study's time period, the predictive M-score was determined for the banks.If the banks had red lights signaling the possibility of management fraud, they were given a score of "1," and otherwise they were given a score of "0." We modified the study of Uwuigbe, Olorunshe, Uwuigbe, Ozordi, Asiriuwa, Asaolu, & Erin (2019) to express the econometric equation as:

Model Specification

$$FSFD_{it} = \beta_0 + \beta_1 CPXA_{it} + \beta_2 REVG_{it} + e_{it}$$

Where:

FSFD = Financial Statement Fraud
CPXA = Capital Expenditure
REVG = Revenue Growth
"{i}" = Cross Section (Sample Banks)

"t"	=	Time Frame (2010 to 2019)
e_{it}	=	Stochastic error Term

Results and Discussion

We first conduct pre-regression analysiswhich includes descriptive statistics. The descriptive statistics in this study provide insight into the nature of data revealed by the sampled banks. The result is shown below as:

Table1 Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
fsfd	120	.65	.4789695	0	1
cpxa	120	17.50125	33.86505	-1.94	153.21
revg	119	11.34202	27.34272	-142.51	99.44

Authors' Computation (2022)

The table above shows that on average, the likelihood of financial statement fraud is 0.65, indicating that 65% of the banks in our sample engage in financial statement fraud. The statistics also show that capital expenditure is 17.50 on average, with a standard deviation of 33.87.Revenue growth increased by 11% over the study period, indicating an increase in free cash accessible to managers during that time.

Table 2 Multivariate Binary Logistic Regression Estimates

Variables	**Capital Expenditure**	**Revenue Growth**
Financial Statement Fraud Model		
Coefficient **z_ Statistics** **Probability_t**	0.007 (2.82) {0.005} **	0.002 (1.07) {0.286}
Observations = 119 **chi^2Probability = 0.0005** **R-Square (Pseudo) = 0.0986** **Hosmer-Lemeshow Prob > chi2 = 0.5500** **Linktest = 0.564**		

Note: () and {} = t-statistics and respective probabilities
Where: ** = 5% level of statistical significance
Source: Authors' Computations (2022)

The results of the binary logistic regression model used to examine if asset structure manipulation is a determinant of financial statement fraud in Nigeria are shown in Table 2.The result shows a Pseudo R^2 value of 0.099, indicating that the independent and control variables in the model explain about 10% of the variation in the dependent variable. The likelihood ratio (14.79) with the associated probability value 0.0005 (5% statistically significant level) suggests that the entire model is fit and can be used for policy recommendation. Confirmatory goodness of fit test results, represented in the Hosmer-Lemeshow chi^2 probability value of 0.5500, suggest that the stated model is well-fit.Further, test for model adequacy result Prob hatsq = 0.564 strongly suggests that the model is adequatebased on the insignificant hatsq probability value, implying that the model is devoid of significant bias hence suitable for interpretation and policy suggestion.

The outcome suggest that capital expenditure is a positive significant determinant of financial statement fraud.This suggests that larger capital expenditure provisioning as a result of free cash flow enhances the possibility of financial statement fraud by managers.In regards to the study outcome, free cash flow from earnings summarizes the performance of the firm's earnings process during the reporting period. If there is a fundamental process change, such as increased capital expenditure, earnings and earnings properties; persistence and smoothness will experience the same change directly. In addition, capital expenditure is associated with greater measurement error and more manipulative opportunities which is the primary motive for fraudulent practices (Richardson et al., 2005).This

findingcontradictsthose of Chalaki, Didar, and Riahnezhad, (2012); Saheed, (2013) and Dechow& Ge, (2006).Particularly, afirm is expected to have a well-organized accounting and internal control department, as well as the financial resources to hire professionals to improve the financial reporting process and account for free cash flow (Chalaki, Didar, &Riahnezhad, 2012). Managers should also have a solid information system in place that allows them to track all financial and non-financial information for operational, tactical, and strategic objectives (Saheed, 2013). This is because the integrity of financial reporting is ensured by a well-structured accounting and internal control department.Internal control mechanisms are designed to detect and/or prevent both the ability to manipulate earnings and errors (Dechow& Ge, 2006).

Conclusion and Recommendation

Financial statement fraud is one type of fraud that has serious consequences, including loss of investor confidence, reputational damage, potential fines, and criminal prosecution. Using the period 2010 to 2019, this study evaluates asset structure in the context of firms' provision for capital expenditure and the possibility of financial statement fraud of Nigerian listed banks.To account for financial statement fraud, Beneish M-score model is utilized. The findings of the multivariate logistic regression led to the conclusion that free cash capital spending increases the possibility that managers will commit fraud. To this end, we strongly advise regulatory authorities to develop and execute rigorous policies targeted at enabling firms to track all financial and non-financial information for operational, tactical, and strategic objectives. Specifically, investment in capital expenditure should be accompanied with onsite valuation where auditing and forensic audit investigation may also apply. The information provided in this study will be useful to auditors, regulators, investors and other users of financial statements.

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