

CORPORATE GOVERNANCE MECHANISM ON THE FINANCIAL STATEMENT FRAUD AMONG LISTED NON-FINANCIAL FIRMS IN NIGERIA

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ABSTRACT:

This study assesses the effect of corporate governance mechanism on financial statement fraud among listed non-financial firms in Nigeria. The study specifically examined the effect of managerial ownership and ownership concentration on financial statement fraud among listed non-financial firms on Nigerian Exchange Group. The study used an ex post facto research design. Ninety-five (95) listed non-financial firms as at 31st December 2022. The study used a purposive sampling technique to select the sample size of seventy-four (74) non-financial listed firms from the population. The study relied on secondary source of data from annual reports and accounts covering a period of 12 years (2011-2022). Ordinary Least Square multiple regression and Binary Logit Regression Technique were used to analyze the data collected for this work through the aid of E-View 9.0 software. The results of the study revealed that managerial ownership and ownership concentration have significant effects on the financial statement fraud among listed non-financial firms in Nigeria. Based on the results and analyses, this study concludes that managerial ownership and ownership concentration have significant effect on the financial statement fraud among listed non-financial firms on the Nigerian Exchange Group (NGX). This study recommended among others based on the findings of this study that management team should be encouraged to invest in the company by buying shares and be part owner of the company and ownership concentration should be encouraged because it has positive significant effect on financial statement fraud among listed non-financial firms in Nigeria.

1. INTRODUCTION

The business environment in this country is also plagued with ethical problems associated with corporate scandals involving large companies (Enobong, 2017). For example, the Cadbury (Nig) Plc scandal has remained a reference point for fraudulent financial reporting. Other incidences of fraudulent financial reporting in Nigeria include the fraud at Afribank Plc, the case of Oando oil Plc and Arik airline are the corporate frauds recorded in 2017, Gupta scandal in 2017, Samsung accounting scandal in 2018, Wells Fargo and Co. in 2018,

Nissan in 2018, Tesla corporate scandal in 2018, Steinhoff corporate fraud in 2019 and Wirecard accounting fraud in 2019 among others. Expectedly, the business community at large and in Nigeria has shown serious concerns for financial statements fraud. Fraudulent financial reporting simply refers to the intentional misstatements and falsifications of figures in the financial statement which do not give a true picture of the financial position of the business organizations (Mukah, 2020). Fraudulent financial reporting undermines the reliability, quality, transparency and integrity of financial reporting process. However, Rezaee (2015) argues that the financial reporting process of listed companies contains monitoring structures that ought to enhance the accountability and transparency of financial information and therefore guard investors' interests from the harmful effects of financial statement fraud. Nordberg, (2011). s part of these monitoring structure agency model indicates that ownership structure instruments harmonize the interests of agent with those of the principal

Ownership structure is seen as the collection of owners that exercise control over activities of a firm. Therefore, these ownership structure mechanisms are supposed to act as pre-emption mechanisms and preserve investors' wealth (Ohidoa – Toluwa & Ohidoa, 2021). It is imperative that ownership should be separated from control in an organization for checks and balances, so that the managers who do not own a small portion of stock in the firm are checked as there is a possibility for them to deviate from the objectives of the firm due to their selfish interest. The ownership structure differs from one organization to another as a result of differences in either the economy of scale, regulation or the environment stability. Financial scandals had placed the ownership structure in the limelight of governance reforms (Adams, Hermalin, and Weisbach 2010). The 2003 and 2011 codes were both issued by the Securities and Exchange Commission (SEC). The 2016 and 2018 were issued by the Financial Reporting Council of Nigeria. Beyond these mentioned codes, the Code of Corporate Governance for Central Bank of Nigeria's (CBN's) (2006) issued Code of Corporate Governance in Nigeria for post-consolidation; the Code of Corporate Governance for Licensed Pensions Operators 2008 issued the Pension Commission (PENCOM), Code of Corporate Governance for Insurance Industry in Nigeria 2009 issued by the National Insurance Commission (NAICOM). In Nigeria, different corporate governance codes have been developed, most of which are industry-specific, such as the Code of Corporate Governance in Nigeria of 2003, 2011, 2016 and now 2018.

The Corporate Governance Code establishes norms related to ownership structure and growth, remuneration, responsibility, transparency and shareholder auditing. The code allows efficient and helpful corporate governance in mitigating disputes between agencies (Akeju, 2017;

Nigerian Code of Corporate Governance, 2018). Despite these reforms, fraudulent financial reporting appears to occur at a growing rate and with an increasing severity that continues to be a big challenge to the confidence of investors, financial analysts and other stakeholders. Hence, this study seeks to ascertain the effect of corporate governance mechanisms on the financial statement fraud among listed non-financial firms in Nigeria. It is the responsibility of management to prepare financial reports and account of their company. Financial statement is expected to report the real economic positions of companies. However, in preparing the financial reports, there are potential of risk of manipulations of the reported earnings that do not show the actual economic position the company. These fraudulent activities that characterize process of preparing financial reports and account are referred to as financial statement fraud. Ibadin and Oladipupo (2015) describe financial statement fraud involve the falsification of accounts and records, which, ultimately, misleads the financial statement users. In this case, the false financial reporting can be associated with market manipulation through which the manipulation of financial figures is achieved to mislead the company's investors. Some of the companies that suffered from fraudulent financial statement frauds are: Cadbury (Nig) PLC scandal has remained a reference point for fraudulent financial reporting. Other incidences of fraudulent financial reporting in Nigeria include the fraud at Arik airline, Oando oil Plc and Afribank Plc which are the corporate frauds recorded in 2017, Gupta scandal in 2017, Samsung accounting scandal in 2018, Wells Fargo and Co. in 2018, Nissan in 2018, Tesla corporate scandal in 2018, Steinhoff corporate fraud in 2019 and Wirecard accounting fraud in 2019 among others. This incidence makes investors uncertain about returns on their investment and gradually losing confidence in financial statement prepared by management of companies. Hence, ownership structure was introduced in corporate governance codes to harmonize the interests of agent with those of the principal. Different corporate governance codes have been developed, most of which are industry-specific, such as the Code of Corporate Governance in Nigeria of 2003, 2011, 2016 and now 2018. Regrettably, the high rates of business collapse are linked with financial statement fraud. Hence this study tends to examine the effect of corporate governance mechanisms on the financial statement fraud among non-financial listed firms in Nigeria.

Notwithstanding, the provisions of the above-mentioned codes of corporate governance, the role played by ownership structure in the recent collapse of some industries has spurred series of arguments. In Nigeria, studies like Ohidoa – Toluwa and Ohidoa, 2021; Anichebe, Agbomah and Agbagbara, 2019; Uwuigbe, et al, 2019; Ilaboya and Lodikero, 2017; Uwalomwa, Daramola and Anjolaoluwa, 2014; have studied ownership structures and financial statement fraud, but did not consider the elements of management ownership and

ownership concentration in relation to financial statement fraud. Some of the studies focused on Money Deposit Banks, some focused on food and beverage industry while some studies focused on consumer goods while this study will focus on non-financial listed firms on the Nigeria Exchange Group. Most of the studies cover the period of 2006 to 2009, while some covers 2011 to 2016. Researcher in this study is not oblivion of any study on this current issue that extend over the period of 2011 to 2022. Hence this study tends to cover this period scope. Furthermore, previous studies have shown that management ownership and ownership concentration do not significantly affect financial statement fraud (Ohidoa – Toluwa & Ohidoa, 2021); (Eneh, 2018); (Bello, 2011); (Yang & Buckland, 2010); whereas, some other studies found that there is significant relationship between ownership structure and financial statement fraud (Abolugne, 2020); (Usman, Akpan, Luka, Riadi & Mita, 2018); (Hamadi & Ines, 2011). To harmonise these inconsistencies and inconclusive results from prior researches, this study sorts to examine the effect of management ownership and ownership concentration on financial statement fraud among non-financial listed firms in Nigeria.

1.1 Objectives of the Study

The main objective of this study is to examine the influence of corporate governance mechanism on financial statement fraud among non-financial listed firms in Nigeria. The specific objectives are to:

- i. Determine the effect of management ownership on financial statement fraud among non-financial listed firms in Nigeria.
- ii. Ascertain the effect of ownership concentration on financial statement fraud among non-financial listed firms in Nigeria.

This study will help regulatory authorities like Central Bank of Nigeria, Securities and Exchange Commission and the Nigerian Exchange Group to control the activities of the ownership structures, as well as the application of Beneish model as a tool for detecting financial statements manipulation.

1.2 Hypotheses

The following hypotheses is formulated for this study:

- H₀₁: Management ownership has no significant effect on the financial statement fraud among non-financial listed firms in Nigeria.
- H₀₂: Ownership concentration has no significant effect on the financial statement fraud among non-financial listed firms in Nigeria

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Corporate governance

Corporate governance is defined as the rules and laws that govern the relationship between managers and shareholders of companies as well as other stakeholders and the application of these rules and laws towards for the achievement of the entity's goals (Okoye and Ofoegbu, 2006). In Nigeria, different corporate governance codes have been developed, most of which are industry-specific, such as the Code of Corporate Governance in Nigeria of 2003, 2011, 2016 and now 2018. The 2003 and 2011 codes were both issued by the Securities and Exchange Commission (SEC). The 2016 and 2018 were issued by the Financial Reporting Council of Nigeria. Beyond these mentioned codes, the Code of Corporate Governance for Central Bank of Nigeria's (CBN's) (2006) issued Code of Corporate Governance in Nigeria for post-consolidation; the Code of Corporate Governance for Licensed Pensions Operators 2008 issued the Pension Commission (PENCOM), Code of Corporate Governance for Insurance Industry in Nigeria 2009 issued by the National Insurance Commission (NAICOM).

The corporate governance has been variously defined by different researchers, and these several definitions have evolved over the years. Some researchers are of the view that corporate governance is set of mechanisms proposed to mitigate agency related problems that arise owing to ownership separation and control between the managers and shareholders (Armstrong *et al.*, 2010). Ownership of companies and the crisis associated with the style of ownership has also become a center of agenda for both business leaders and regulators all over the world. Corporate governance mechanism that can moderate organization performance is ownership structure of the firm (Van Essenet, Otten, & Carberry, 2015). The extent to which the board can monitor executives will be affected by ownership concentration and distribution (institutional, block, and director shareholdings) and the influence of these owners, particularly major shareholders (Sanchez-Marin & Baixauli-Soler, 2014). The ownership structure is a proportion of the shares held by different parties in the equity (ordinary shares) of the company. These parties are known as the owners of the corporation, ranging from promoters, individual and institutional investors, private and public corporations and foreign owners. In this study, corporate governance mechanism is proxy with managerial ownership and ownership concentration. The proxies are discussed below:

2.1.1.1 Managerial Ownership

Managerial ownership is an aspect of governance that influences the board monitoring activity of managers. This is the total number of shares owned by Chief Executive Officers (CEOs), which includes restricted shares but excludes stock options, and is expressed as a percentage of the company's total outstanding shares (Kim, 2010). Managerial ownership is the percentage of shares owned by the corporate managers, commissioners, those directly involved in the management of the company (Agustia et al., 2018). Managerial ownership can also be defined as a position in which a manager has the authority to make decisions about the company's strategies and policies (Adebiyi & Olowookere, 2016). Managerial ownership grows as a result of the increase in managerial ownership, which encourages managers to accept responsibility for wealth and, as a result, aligns the interests of management and shareholders. Managerial incentives to consume advantages and expropriate shareholder wealth are reduced as a result. This happens when the management of the company owns shares in the company (Meilita & Rokhmawati, 2017). Measurement of managerial ownership according to Tran et al. (2020) is the sum of managerial ownership shares divided by the total outstanding shares.

Increasing managerial ownership is a technique to boost transparency because doing so will inspire managers to perform better, which will benefit the business and lead to goal congruence.

Greater managerial ownership will encourage management to be more committed to enhancing their performance since management must satisfy the desires of shareholders who are none other than himself. (Alzoubi, 2016).

2.1.1.2 Ownership Concentration

Ownership concentration is the equity share of the major investors and is affected by certain risk and monitoring costs. Usually, a stockholder who holds 5% or more of company equity is reflected a major stockholder. The major shareholder can be an individual, a domestic foreign corporation, an institutional investor and or the state. Large block holders comprise greater incentive to monitor managers as the efforts involved in monitoring is less than the benefits to large equity holdings in the company (Alzoubi, 2016).

2.1.2 Financial Statement Fraud

Financial statement serves as a tool for communicating to users and stakeholders the true and fair view of the company. Financial statement shows where the company is, and where it is heading. Weygandt and Warfield (2007) assert that financial statements are useful for the

assessment of a company's liquidity, solvency, financial flexibility and performance. Financial statements have been viewed in connection with avenue to perpetuate fraudulent activities and deception. ACFE (2003) claims that financial statement fraud is the deliberate misrepresentation of the financial condition of an enterprise accomplished through the intentional misstatement or omission of amounts or disclosures in the financial statements to deceive financial statement users. Warshavsky (2012) identifies some examples of accounting manipulations or manipulations that can occur in the financial statement data to include but not restricted to: recording revenue too soon or with questionable quality; recording fictitious revenue; boosting income with one-time gains; shifting current expense to a different period; capitalizing otherwise currently recognizable expenses, and failing to record, or improperly reducing, liabilities, among others. Therefore, financial statement fraud is a deliberate misstatement of material facts by management in the books of accounts of a company with the aim of deceiving investors and creditors. This illegitimate task performed by management has a severe impact on the economy because it significantly dampens the confidence of investors.

Gupta and Gill (2012) explained that manipulated financial statements present a charming financial position to the investors by manipulating and concealing the financial information and qualitative disclosures of financial statements. More so, these disclosures may not apparently contain fraud indicators, however, the warning signs of fraud or manipulation can be identified by a proper understanding of the syntactic as well as the semantics of any natural language because fraudsters may create artificial indicators by using semantic of the language in the manipulated financial statements.

2.1.3 Beneish Model

Beneish developed the m-score model using forensic accounting principles. Proceeding from the Altman Z-Score, Messod D. Beneish, an associate professor at the Kelly School of Business, Indiana University, researched the quantitative differences between public companies that had committed financial statement manipulations and those that had not. Beneish (1999) in his *The Detection of Earnings Manipulation* had formulated eight mathematical ratios (M-score) to identify the likelihood of manipulations by a company (Nwoye, Okoye & Oraka, 2013). Each ratio represents the characteristics of a typical earnings manipulator. The m-score gained popularity by successfully detecting financial scandals before the public discovered them. According to Beneish (1999), M-score to identify the likelihood of manipulations by a company are: Days Sales in Receivables Index (DSRI) is measured as the change in receivables in the first year that the manipulation is discovered

(year t) by comparing them with the same measure in year $t-1$ according to sales. A large increase in days' sales in receivables could be the result of a change in credit policy to spur sales in the face of increased competition, but disproportionate increases in receivables relative to sales could also suggest revenue inflation.

Gross Margin Index (GMI) is measured as a ratio of total sales revenue minus the cost of goods sold divided by sales in year $t-1$ to the corresponding measurement in year t . A GMI above 1 indicates a decline in gross margins, which in turn is related to poorer business prospects and a higher probability of manipulation. Küçükkocaoğlu and Dikmen (2010) suggested that GMI and the probability of earnings manipulation are positively correlated. Finding a high GMI means auditors and CFEs should look deeper into reporting of sales and cost of goods sold (Harrington, 2005)

Asset Quality Index (AQI) measures the percentage of total assets that are intangible assets this year divided by the same percentage calculation for the last year. An increase in this measure is predicted to increase the probability of manipulation. An AQI greater than 1.0 indicates that the company has potentially increased its cost deferral or increased its intangible assets, and committed earnings manipulation (Warshavsky, 2012). Asset quality index and financial information manipulation are suggested to be positively correlated.

Sales Growth Index (SGI) is the measure of growth in revenue in one year over the revenue of a prior year. An index greater than 1 represents a positive growth while less than 1.0 represents a negative growth in the year under review. According to prior studies such as Küçükkocaoğlu and Dikmen (2010), companies that take sales growth into account are more likely to have earning manipulation compared to other companies.

Total Accruals to Total Assets Index (TATA) is used to measure the extent to which sales are made on a cash basis. The total accruals metric is computed as change in working capital (except cash) less depreciation for the year under review adjusted for changes in income tax payable and current portion of long-term debt. An increasing degree of accruals as part of total assets would indicate a higher chance of manipulation (Prevoo, 2007). For this study, the Beneish M score was used to categorise the firm into manipulators (where the Beneish M index is greater than -2.22) and non-manipulators (where the Beneish M index is below the -2.22 benchmark).

2.2 Theoretical Framework

2.2.1 Stakeholder Theory

Edward Freeman's stakeholder theory recognizes that a company's stakeholder is anyone affected by the company and its workings. Stakeholders comprises, but not limited to, customers, employees, management, creditors, shareholders or investors, local communities, the media, government and regulatory institutions, financial institutions, and the general public. The stakeholder theory examines the needs of not only shareholders but of every faction associated with the organization, suggesting that no one group is more important than the other. According to Solomon (2004) in Dao & Tran (2017), this concept is usually applied to large corporation, where the impact of companies on society is so persuasive that they should discharge responsibility to many more sectors of the society rather than on their shareholders only. The idea of the stakeholder as a factor in corporate governance is in contrast with conservative economist Milton Friedman's view that the only purpose of a business is to make money for its shareholders.

Here, corporate governance information is disclosed to all the stakeholders without considering the element of power of each stakeholder. On the other hand, the managerial branch of stakeholder theory takes into account the interests of limited number of stakeholders, who have significant power to influence the organization. A manager following managerial branch of stakeholder theory would take into account the interest of 'powerful stakeholders. Stakeholder theory suggests that an organisation will respond to the concerns and expectations of powerful stakeholders and some of the response will be in the form of strategic disclosures. Thus, under managerial branch of stakeholder theory, corporate governance information is disclosed to comply with the expectations of powerful stakeholders (such as government, high volume buyers or customers, and shareholders, among others). The theoretical perspective that guided this study is linked to the idea that firms with an efficient corporate governance structure have better financial reporting than those without it. Therefore, this study is anchored on stakeholder's theory.

2.3 Empirical Review

Usman, Akpan, Luka and Abolugne (2020) examined effect of ownership structure on financial statement fraud prediction of listed conglomerate companies in Nigeria from 2010-2019. The ownership structure variables of managerial ownership, institutional ownership and foreign ownership were regressed against financial statement fraud probability using the Beneish M-score. The result indicates that ownership structure can significantly improve detection of financial statement fraud likelihood in listed conglomerate companies in Nigeria.

As managerial ownership has a significant effect on the detection of financial statement fraud likelihood, while institutional ownership and foreign ownership has no significant effect detection of financial statement fraud likelihood in listed conglomerate companies in Nigeria.

Piosik and Genge (2019) conducted a study on the influence of a company's ownership structure on financial statement fraud using 1,053 listed on the Warsaw stock exchange from 2008 to 2017. The study employed the use of descriptive statistics and panel data regression models and the results from the study revealed that the presence of managerial investors, affects financial statement fraud which reduces the magnitude of financial statement fraud. The study confirms the existence of the negative correlation between financial statement fraud and managerial ownership, thereby indicating that the greater the managerial ownership, the smaller the magnitude of financial statement fraud, thus managerial ownership increases financial transparency.

Amir et al. (2019) conducted a study on ownership structure and financial statement fraud in Malaysia using a sample size of 650 firm-year observations from Malaysian non-financial corporations from 2012 -2016. The researchers used multiple regression as the statistical tool for analysis and the study discovered that managerial ownership has a negative and significant effect on financial statement fraud.

Almashaqbeh et al. (2019) investigated the relationship between managerial ownership and financial statement fraud in Jordan. The study used 101 companies from 2011-2015. The statistical method used was the GLS regression model and the findings from the study show that institutional ownership negatively influences financial statement fraud. The outcome suggest that managerial ownership should be encouraged in listed companies so that it can replace for the weakness of other corporate governance (CG) mechanisms in reducing financial statement fraud.

Pambudi (2020) conducted a study on the relationship between managerial ownership and financial statement fraud in Indonesia. The study used all the manufacturing companies listed on the Indonesia Stock Exchange for the period of 2017-2018. The statistical analysis method used for the study is multiple regression and the results from the study showed that managerial ownership has a positive and insignificant effect on financial statement fraud.

Ramadan (2015) conducted a study on effect of managerial ownership on a firm's ability to practice financial statement fraud using 77 Jordanian industrial companies listed at Amman Stock Exchange (ASE) for the period 2000-2014 were selected resulting in 1089 firm-year observations. The study econometric analysis utilizing unbalanced panel data regression and

found out that managerial ownership has a negative relationship with financial statement fraud.

3. MATERIAL AND METHOD

The study adopted the ex post facto research design to examine the effect of managerial ownership and ownership concentration on financial statement fraud among listed non-financial firms on the Nigerian Exchange Group. This is considered appropriate for a developing economy like Nigeria, and also, it is adequate enough to validly capture any behavioural change contrary to a cross-sectional design method usually associated with most studies in this area both in developed and developing economies. The population of the study was made up of non-financial firms listed on the Nigerian Exchange Group (NGX). As at 31st December 2022, ninety - five (95) non-financial firms were listed on the Nigerian Exchange Group floor. The choice of non-financial firms that consists of Industrial Goods, Natural Resources, Consumer goods, Health care, Agriculture, Services, conglomerate, ICT, Oil and Gas and Construction/Real estate is based on the fact that most of these companies are seriously affected by financial statement fraud. The study used purposive sampling technique to select the sample population. This sampling technique was used to enable the researchers select firms that the data can be conveniently assessed. Non-financial firms that have not operated on the floor of Nigeria Exchange Group for the period of ten years (2011 to 2022) are excluded from the population.

The total numbers of non-financial firms that have their financial statements available either on its website or in the office of the Nigerian Exchange Group as at 31st December, 2022 are used as our sample population. Based on these conditions highlighted above, seventy four (74) firms are selected as the sampled population. Secondary data was used for this study. The sources of data include annual reports and accounts of companies, corporate website of companies and the Nigerian Exchange Group Fact books and CBN Statistical Bulletin, covering a period of 12 years (2011 – 2022). This study used Ordinary Least Square (OLS) multiple regressions to estimate the panel data from 2011 to 2022 to examine the effect of foreign and institutional ownership on financial statement fraud of listed non-financial firms on Nigerian Exchange Group. This was carried out with the aid of E - View 10 statistical software. In this study, the extent of financial statement fraud was measured using the Beneish M-score model. Beneish M-score model was developed by Beneish (1999) to estimate the probability of financial statement fraud. If the predictive M-score is greater than -2.22, benchmark it indicates a red flag meaning that there is a possibility of accounting fraud occurring in the organization, or it could also indicate a strong likelihood of the firm engaging

in financial statement fraud (Beasley, 1996; Ohiokha, 2017; Okoye, 2016). The predictive M-score was calculated for the non-financial firms over the years covered by the study. The score of “1” was given if the companies had red flags indicating that there was a possibility of financial fraud and “0” if otherwise. The measurements are Days to Sales in Receivable Index (DSRI), Gross Margin Index (GMI), Asset Quality Index (AQI), Sales Growth Index (SGI), Depreciation Index (DEPI), Sales, General and Administrative Expenses Index (SGAI), Leverage Index (LVGI) and Total Accrual to Total Assets (TATA).

The study adopted Beneish (1999) M-Score expressed in an equation as presented below: M - Score = $-4.84 + 0.92 \text{ DSRI} + 0.528 \text{ GMI} + 0.404 \text{ AQI} + 0.892 \text{ SGI} + 0.115 \text{ DEPI} - 0.172 \text{ SGAI} + 4.679 \text{ TATA} - 0.327 \text{ LVGI}$.

Where:

DSRI: Days' to sales in receivable Index = $(\text{Net Receivables } t / \text{Sales } t) / \text{Net Receivables } t-1 / \text{Sales } t-1)$

GMI: Gross Margin Index = $[(\text{Sales } t-1 - \text{Cost of Goods Sold } t-1) / \text{Sales } t-1] / [(\text{Sales } t - \text{Cost of Goods Sold } t) / \text{Sales } t]$

AQI: Asset Quality Index = $[1 - (\text{Current Assets } t + \text{Plant, Property \& Equipment } t + \text{Securities } t) / \text{Total Assets } t] / [1 - ((\text{Current Assets } t-1 + \text{Plant, Property \& Equipment } t-1 + \text{Securities } t-1) / \text{Total Assets } t-1)]$

SGI: Sales Growth Index = $\text{Sales } t / \text{Sales } t-1$

DEPI: Depreciation Index = $(\text{Depreciation } t-1 / (\text{Plant, Property \& Equipment } t-1 + \text{Depreciation } t-1)) / (\text{Depreciation } t / (\text{Plant, Property \& Equipment } t + \text{Depreciation } t))$

SGAI: Sales, General and Administrative Expenses Index = $(\text{Selling General \& Administrative Expense } t / \text{Sales } t) / (\text{Selling General \& Administrative Expense } t-1 / \text{Sales } t-1)$

LVGI: Leverage Index = $[(\text{Current Liabilities } t + \text{Total Long Term Debt } t) / \text{Total Assets } t] / [(\text{Current Liabilities } t-1 + \text{Total Long Term Debt } t-1) / \text{Total Assets } t-1]$

TATA: Total Accrual to Total Assets = $(\text{Income from Continuing Operations } t - \text{Cash Flows from Operations } t) / \text{Total Assets } t$

Managerial ownership is the percentage of shares owned by the corporate managers divided by the total outstanding shares.

Ownership concentration is the sum of stockholder who holds 5% or more of company equity divided by total outstanding shares. A functional relationship between the dependent variable and the independent variables as:

$$\text{FRAUD} = f(\text{MANOW}, \text{OWCON}, \mu) \dots\dots\dots \text{Eq. 1}$$

Equation 1 was transformed into econometric forms as:

$$\text{FRAUD}_{it} = \beta_0 + \beta_1 \text{MANOW}_{it} + \beta_2 \text{OWCON}_{it} + \mu_{it} \dots\dots\dots \text{Eq. 2}$$

Where; FRAUD = Beneish M-score for model 1,

MANOW = Managerial ownership;

OWCON = Ownership concentration.

β_0 is the constant, β_1 and β_2 are the coefficients of the explanatory variables for the model; μ is the error term that captures the stochastic variables in the model; i = is the collection of the firms; and t = is the time factor. The *a priori* expectations are stated as: $\beta_1 > 0$; $\beta_2 > 0$.

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

4.1.1 Descriptive Statistics

Table 1: Descriptive Analysis of the Variables

	<i>BENI</i>	<i>MANO</i>	<i>OWNC</i>
<i>Mean</i>	0.940492	53.54978	21.89596
<i>Median</i>	1.000000	57.50000	5.535000
<i>Maximum</i>	10.41000	98.00000	676.8300
<i>Minimum</i>	-8.790000	0.000000	0.000000
<i>Std. Dev.</i>	0.702917	22.83609	39.59267
<i>Skewness</i>	-2.780669	-0.577456	6.834221
<i>Kurtosis</i>	117.9740	2.799022	91.43093
<i>Jarque-Bera</i>	510123.3	52.90721	308264.0
<i>Probability</i>	0.000000	0.000000	0.000000
<i>Sum</i>	869.0150	49480.00	20231.87
<i>Sum Sq. Dev.</i>	456.0477	481332.7	1446876.
<i>Observations</i>	924	924	924

Source: E-views, 10 Outputs

The mean value for the variable Beneish Index (BENI) is 0.940492, with a maximum of 10.41 and a minimum of -8.79. The standard deviation is 0.702917, and the skewness is -2.780669, indicating that the distribution may be negatively skewed. The high kurtosis value of 117.9740 and the low probability of the Jarque-Bera test (0.0000) suggest that the distribution is not normal and has more extreme values at the tails than a standard normal distribution.

The mean value for the variable Management Ownership (MANO) is 53.54978, with a maximum of 98 and a minimum of 0. The standard deviation is 22.83609, and the skewness

is -0.577456, indicating a slightly negatively skewed distribution. The kurtosis value of 2.799022 is roughly normal, and the probability of the Jarque-Bera test is low, suggesting that the distribution is normal.

The mean value for the variable Ownership Concentration (OWNC) is 21.89596, with a maximum of 676.83 and a minimum of 0. The standard deviation is 39.59267, and the skewness is 6.834221, indicating a highly skewed distribution. The kurtosis value is very high at 91.43093, and the probability of the Jarque-Bera test is low, suggesting that the distribution is not normal and has more extreme values at the tails than a standard normal distribution.

4.1.2 Linearity Test

Linearity test was conducted to check whether the model has a linear relationship between the independent and dependent variables.

Table 2 Ramsey RESET Test

Equation: UNTITLED

Specification: BENI MANO OWNC C

Omitted Variables: Squares of fitted values

	Value	Df	Probability
t-statistic	1.682679	917	0.0928
F-statistic	2.831410	(1, 917)	0.0928
Likelihood ratio	2.848628	1	0.0915

Source: E-views, 10 Outputs

Table 2 shows the results of the Ramsey RESET test for linearity in the model. The null hypothesis of the test is that the model has a linear functional form, while the alternate hypothesis is that the model is misspecified and has a non-linear functional form. The test produces the value of 1.682679 for the t-statistic and the probability value of 0.0928.

Since the p-value (0.0928) is greater than 0.05, the study failed to reject the null hypothesis that the model has a linear functional form. Therefore, the data provides evidence that the model has a linear relationship between the independent and dependent variables. This indicates that the investigated variables of management ownership, and ownership concentration have a linear effect on financial statement fraud.

4.2 Test of Hypotheses

Table 3: Test of Hypotheses

Dependent Variable: BENI

Method: Robust Least Squares

Date: 10/26/23 Time: 13:45

Sample: 1 924

Included observations: 924

Method: MM-estimation

S settings: tuning=1.547645, breakdown=0.5, trials=200, subsmpl=6,
refine=2, compare=5

M settings: weight=Bisquare, tuning=4.684

Random number generator: rng=kn, seed=1567408895

Huber Type I Standard Errors & Covariance

Variable	Coefficient	Std. Error	z-Statistic	Prob.
MANO	0.006092	0.000449	13.56098	0.0000
OWNC	0.000734	0.000156	4.700529	0.0000
C	0.066570	0.027897	2.386316	0.0170
Robust Statistics				
R-squared	0.018908	Adjusted R-squared	0.013564	
Rw-squared	0.615033	Adjust Rw-squared	0.615033	
Akaike info criterion	1558.785	Schwarz criterion	1590.775	
Deviance	44.41246	Scale	0.169283	
Rn-squared statistic	1262.709	Prob(Rn-squared stat.)	0.000000	
Non-robust Statistics				
Mean dependent var	0.940492	S.D. dependent var	0.702917	
S.E. of regression	0.679034	Sum squared resid	423.2784	

Source: E-views, 10 Outputs

The output of the regression analysis on the effect of management ownership and ownership concentration on financial statement fraud is shown in Table 3 above. The R-squared (R^2) value is a statistical measure that indicates the proportion of the dependent variable's variation (in this case, financial statement fraud) that is explained by the independent variables

(management ownership, and ownership concentration) in the regression model. The R-squared value is 0.018908 which suggests that the independent variables in the model explained or predicted only about 2% of the variations in financial statement fraud. In other words, the variables examined in the study do not have a very high joint explanatory impact on financial statement fraud.

However, this regression output was accepted based on the Rn-squared statistic of 1262.709 which is significant. The Prob (Rn-squared stat.) value was used to test the statistical significance of the Rn-squared statistic. Given that the Prob (Rn-squared stat.) value of 0.000000 is less than 0.05, it suggests that management ownership and ownership concentration have a joint significant effect on financial statement fraud, despite the very low R-squared value.

4.2.1 Hypothesis One

H₀ Management ownership has no significant effect on the financial statement fraud among non-financial listed firms in Nigeria.

H_i: Management ownership has significant effect on the financial statement fraud among non-financial listed firms in Nigeria.

The coefficient for management ownership is 0.006092, which means that a one-unit increase in management ownership will result in a 0.006092-unit increase in financial statement fraud on average. With a positive coefficient, it suggests that there is a positive association between higher levels of management ownership and higher levels of financial statement fraud. The probability value of 0.0000 indicates that the coefficient is statistically significant at the 0.05 significance level. Therefore, the alternate hypothesis was accepted that management ownership has a significant positive effect on financial statement fraud

4.2.1.1 Decision:

Based on the analysis above, the Null hypothesis (H₀) is rejected while alternate hypothesis (H_i) is accepted; which state that management ownership has significant effect on the financial statement fraud among non-financial listed firms in Nigeria.

4.2.2 Hypothesis Two

H₀: Ownership concentration has no significant effect on the financial statement fraud among non-financial listed firms in Nigeria

H_i: Ownership concentration has significant effect on the financial statement fraud among non-financial listed firms in Nigeria

The coefficient for ownership concentration is 0.000734, meaning that a one-unit increase in ownership concentration will result in a 0.000734 unit increase in financial statement fraud on average. The positive coefficient suggests that there is a relationship between higher levels of ownership concentration and higher levels of financial statement fraud. The probability value of 0.0000 indicates that the coefficient is statistically significant at 0.05 significance level. Therefore, having accepted the alternate hypothesis on that basis, we conclude that ownership concentration has a significant positive effect on financial statement fraud.

4.2.2.1 Decision:

Based on the analysis above, the Null hypothesis (H₀) is rejected while alternate hypothesis (H_i) is accepted; which state that ownership concentration has significant effect on the financial statement fraud among non-financial listed firms in Nigeria

CONCLUSION AND RECOMMENDATIONS

This study ascertains the effect of corporate governance mechanism on financial statement fraud among non-financial listed firms in Nigeria. The study covers ownership structure such as: management ownership with ownership concentration and financial statement fraud. To the best of our knowledge, this is the first study that provides empirical evidence on effect corporate governance mechanism on financial statement fraud among non-financial listed firms in Nigeria for the period of 2011 to 2022. Based on the results and analysis above, this study indicates that management ownership and ownership concentration have significant effect on the financial statement fraud of non-financial firms listed on the Nigerian Exchange Group (NGX).

Based on the above findings we hereby recommend the following:

- i. Since management ownership has significant effect on the financial statement fraud among non-financial listed firms in Nigeria, management team should be encouraged to invest in the company by buying shares and be part owner of the company.
- ii. Ownership concentration should be encouraged because ownership concentration has positive significant effect on financial statement fraud among non-financial listed firms in Nigeria.

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