

Innovations

Audit Committee Characteristics and Financial Statement Fraud: Evidence from Nigeria-Listed Companies

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Abstract: *This study examined the impact of audit committee characteristics on financial statement fraud of listed companies in Nigeria. The study adopted an ex-post factor research design to achieve the above goals. The data used for this study was sourced from the annual reports of the selected listed companies. A purposive sampling technique was used to select fifty (50) entities from thirteen (13) from 2018 to 2022. The data collected were then analysed using the panel data regression model. The findings showed that audit committee size and meetings have a negative, non-significant impact on the detection/prevention of financial statement fraud in the selected companies. It is therefore concluded that audit committee characteristics had no significant effect on the detection/prevention of financial statement fraud of the companies chosen. In line with the findings, we recommend that increasing the proportion of independent members and including financial experts on the audit committee is crucial for effective oversight, and this can reduce the likelihood of fraud; the management should provide training for board members on the latest financial reporting and fraud detection developments. This can help them stay informed and vigilant in detecting fraudulent activities.*

Keywords: *Audit committee characteristics, financial statement fraud, Audit committee size, Audit committee meetings, Board independence and audit committee expertise*

1. Introduction

Over the past few decades, financial statement fraud (FSF) has put business organisations' survival and future at risk, raising concerns about the profession's integrity and reliability. Financial statement fraud is considerably increasing the number of businesses that have failed. For instance, the Enron, WorldCom, Parmalat, Royal Bank of Scotland, Olympus, Tesco, Toshiba, Palmer and Harvey, Carillion, and Patisserie Valerie cases from 2001 to 2018 and 2019 are some cases

of financial statement fraud (Awolowo, Garrow, Clark, & Chan 2018; Luo, & Jeyaraj, 2019).

The Nigerian economy has also experienced financial statement scandals involving numerous defunct organisations, including Oceanic Bank Nigeria Plc, Intercontinental Bank Nigeria Plc, Savannah Bank Nigeria Plc, Cadbury Nigeria Plc, African Petroleum Plc, Liver Brothers Nigeria Plc, and Afribank Nigeria Plc, (Ilaboya & Lodikero (2017) and Sule, Yusof, and Bahador (2019). Errand Products, Phoenix Specialties Nigeria Limited, Technoflex Company Limited, Evans Medicals, Kenfrancis Farms Limited, GlaxoSmithKline Nigeria, Iso Glass, Universal Rubber, Multi-Rex Integrated Foods, Standard Biscuits, NASCO Fibre, UTC Foods, Deli Foods, Rasa Industries, Vee Oil, and Triumph Nigeria Limited are just a few other businesses that have collapsed due to fraud cases that have been reported in Nigeria (International Centre for Investigative Reporting, 22 March 2023).

The topic of financial statement fraud and the inescapable risk it poses, particularly in developed economies, has attracted the attention of scholars. Financial statement fraud can present significant risks, including the deterioration of investor confidence in the accuracy of the reported financial data and the erosion of public trust. It jeopardises financial reporting's dependability, quality, transparency, and integrity (Vlad, Tulvinschi, and Chiri (2011). According to Amoa-Gyarteng (2014), Maulidi, Shonhadji, Sari, Nusantara, and Widuri (2022), Manurung and Hardika (2015), Ozcelik (2020), Summers and Sweeney (1998), financial statement fraud, has currently become a thing of concern to scholars, practitioners, and policy-makers. It has become a global issue for the company's stakeholders and parties worldwide (Muhammad, Irwansyah, Ardi, Yana, and Dio, 2020).

The most crucial means of sharing information about a company's financial performance and condition are the financial reports that management prepares. The financial reports should show the actual state of affairs of the company, as investors and financial analysts need this information for investment decisions. Financial analysts and investors are typical users of financial statements who rely on the financial data provided by the company to make a judgment and may do so without realising that the data is false (Tillman, 2009). Past research shows that bad corporate governance is related to misleading financial reporting. As a result, corporate organisations have put several controls in place to limit and lessen the reporting of fraudulent information, collectively called corporate governance.

Corporate governance is the system of rules, practices and processes by which a company is directed and controlled. Good corporate governance has a

relationship with the audit committee. An effective **audit committee is essential for good corporate governance, leading to good financial reporting, internal controls, risk management**, and external audit functions. Establishing an audit committee is one of the duties and obligations of the board of directors. Organisations set up audit committees to ensure their activities are carried out efficiently and profitably for shareholders. The audit committee is essential for overseeing and monitoring a company's financial operation. It should, therefore, be able to spot and prevent any attempts or actions made by management to manipulate earnings or misappropriate funds. However, fraud remains a significant issue in organisations, even with the existence of the audit committee. Numerous notable fraud cases involving the loss of hundreds of millions of naira have occurred in Nigerian organisations (Ilaboya & Lodikero (2017), Sule, Yusof, and Bahador (2019), among other reports.

The Nigerian Deposit Insurance Corporation (NDIC) 2018 report reveals that the deposit money banks (DMBs) reported 37,817 fraud cases in 2018 and 26,182 fraud cases in 2017. In 2018, the amount was 38.93 billion; in 2017, it was 12.01 billion. In 2018, fraud incidents cost an estimated 15.15 billion dollars. As a result of the incessant fraud cases, the NDIC, in December 2019, successfully liquidated 425 financial institutions in Nigeria due to a weak board of directors, poor corporate governance, and poor management procedures in these institutions (Obiechina, 2020).

Nigeria's alarming rise in financial fraud necessitates implementing protective measures such as strong corporate governance practices to alleviate the unfavourable effects of fraud incidence. Improvement in the Nigerian Code of Corporate Governance (NCCG) in 2018 is one such measure. Nigerian Code of Corporate Governance states, "the Board delegate[s] some functions, duties, and responsibilities to well-structured committees, to ensure efficiency and effectiveness." Additionally, as amended, Section 359 (3) of the Companies and Allied Matters Act (CAMA), 2020, mandates that every public company have an audit committee to support high-quality reporting.

This study is essential to Nigeria's economy and the world for the following reasons. Firstly, an audit committee is the primary operating committee of a company's board of directors, overseeing financial reporting and disclosure. The audit committee can be crucial in examining an organisation's policies, processes, systems and control. Neglecting the essentials of the committee can have a detrimental effect on organisations. Therefore, this study is conducted to ascertain if the audit committees set up in these companies have been able to detect and prevent fraud, especially with the review of the Nigeria Code of Corporate Governance in 2018. This is essential as all publicly traded companies

worldwide are expected to maintain a qualified audit committee that should oversee the processes in the organisation to avoid fraudulent activities.

Secondly, the audit committee provide third-party assurance to various stakeholders that the financial statements are free from material misstatement. As a result of an established audit committee, stakeholders may evaluate and improve the effectiveness of risk management, control, and governance over the subject matter. So, providing financial statements free from fraudulent management activities in Nigerian companies will go a long way in boosting stakeholders' and investors' confidence worldwide, hence the importance of this study. An active audit committee safeguards the integrity of financial reporting, enhances investor confidence, and supports robust governance practices. Understanding the importance of the audit committee is essential for stakeholders who want to uphold high standards of corporate governance and cultivate trust to comprehend the significance of the audit committee.

Given the significance of the audit committee in detecting and preventing financial fraud, this study was conducted to see whether audit committee characteristics proxied with audit committee size and meetings, audit committee expertise, and board independence reduce the likelihood of fraudulent or aggressive financial statement fraud. This study specifically looked into audit committees' impact in detecting/preventing financial statement fraud in Nigerian listed companies.

2. Review of Related Literature

2.1 Audit Committee Characteristics

The audit committee is an appointed committee of the board of directors created by statute for each public company and tasked with safeguarding and protecting the interests of shareholders. They are responsible for ensuring the company's policies and procedures are followed by the board of directors, external auditors, and internal auditors (Adigwe & Ogoun, 2018). To maintain efficiency and effectiveness, public companies in Nigeria must create an audit committee following Section 359 (3) of the Companies and Allied Matters Act (CAMA), 2020. The Nigerian Code of Corporate Governance NCCG (2018) also specifies that the board must assign some of its functions, duties, and responsibilities to a well-structured committee while still fulfilling its obligations. Its duties include monitoring the efficiency of the company's internal control and accounting systems and supervising the management process to ensure the accuracy of the financial statements.

The audit committee's efficacy is contingent upon exhibited several attributes. The audit committee protects an organisation's financial integrity and liaises between the board of directors, management, and external auditors. Its primary

role is overseeing the internal control environment, ensuring vigorous mechanisms are in place to prevent and detect fraud. This entails having a solid grasp of the organisation's risk management system and assessing how adequate and realistic the internal controls are (AccountingInsights Team 2024).

The audit committee comprises independent and non-executive directors (Raghunandan and Dasaratha 2004). Non-executive directors ought to have independence to perform their jobs more effectively. They should be apolitical, philanthropic, or genuinely interested in their duties. If not, a lack of independence could impede their autonomy and harm their efficacy. The independent and non-executive directors are responsible for examining the board's assessment of the internal control system's effectiveness and taking appropriate action after learning about the risks that companies face. This covers yearly evaluations as well as routine reviews.

Another characteristic is the audit committee's meeting frequency or the number of times it convenes each year. Since directors can spot fraud quickly and end it before it gets out of hand, they are unlikely to face its consequences. Their job is to eliminate all fraud so the audit committee can function more effectively. Regular audit committee meetings enhance the committee's efficacy and quality in detecting and preventing fraud (Raghunandan, Read & Rama, 2001). The size is another attribute of the audit committee. According to Rezaee, Olibe, and Minmier (2003), the size of an audit committee is a crucial factor. It varies based on the demands and the degree to which the committee has been delegated authority. Ensuring the involvement of all members and enabling the committee to function effectively are the primary goals. Most businesses formulate rules that rotate employees based on their expertise and experience. The board of directors should assess their performance to ensure the audit committees are performing according to the standards set by the board and committees. The audit committee's methods can be restored and updated by introducing fresh perspectives through member rotation. This facilitates the board members' comprehension of the audit committee's responsibilities.

Another essential characteristic of the audit committee is its expertise level. Professionals with a high degree of expertise make up an efficient audit committee. Due to the audit committee's intricate work, the board must consider candidates and ensure they have the necessary specialised abilities. They should be capable and experienced in the corporate world, possess a thorough understanding of internal control systems, be knowledgeable about compliance systems, be mentally unattached, and be open to new ideas. Integrity in its operations is preserved and upheld by an active audit committee. Open communication between senior management and the auditors can help the audit committee foster a transparent and honest culture. They ought to conduct

business with professionalism, objectivity, and a strong sense of ethical responsibility (Robert, 2002).

2.2 Financial Statement Fraud (FSF)

Financial statement fraud is a blend of Financial statements and fraud. The latter is defined as any act, omission, or misrepresentation of a monetary nature that is premeditated to mislead a party to a transaction. In contrast, the former results from financial transactions or economic events. Arjan (2016) claims that the term “financial statement fraud” can be used to categorise a range of actions taken by participants in the financial market that involve making false claims regarding the true nature or financial standing of an investment outlet, such as a company, fund, borrower, or investment product. Notwithstanding the element of deceit, financial statement fraud refers to misrepresentations about actors, products, or businesses that are otherwise lawful. This sets them apart from investment scams and intentionally deceptive schemes from the outset. Financial statement fraud is also distinct from fraudulent mis-selling practices in that it disseminates plain lies and untrue facts rather than merely creating misleading impressions. According to the Association of Certified Fraud Examiners (ACFE), financial statement fraud is the purposeful distortion of a company’s financial status by intentional falsification or the reduction of disclosures in financial statements to deceive users of financial statements. Accordingly, financial statement fraud is a willful dishonesty that entails falsifying accounting records to obtain unlawful advantages or gains at the expense of investors and other stakeholders in the business community.

After a fiscal year, the management should present an accurate and fair picture of an entity’s financial situation. Regretfully, financial statements are frequently constructed in a way that purposefully misrepresents the organisation’s performance and financial status to mislead others who utilise financial information (Brierley, Price, Prior [BPP] Learning Media, 2012). Financial statement fraud generally takes advantage of the knowledge asymmetry between the many parties involved in a financial transaction. It appears to reduce this information asymmetry while increasing it by fusing misleading information with the perception of disclosure. Several academics have highlighted the future-focused aspect of this deceit (Langevoort 1997: 110; Lomnicka 2008; Velikonja 2013). They contend that parties to financial transactions only exchange intangible rights, the value of which is contingent on the issuer’s status and future performance, both now and in the future (Lomnicka 2008). Financial statement fraudsters manipulate the market’s perception of the possibilities of these rights by releasing misleading information.

2.2 **Audit Committee Size, Audit Committee Meetings and Financial Statement**

Fraud In the developed world, audit committees should have at least three independent non-executive directors (NEDs) and two for smaller companies. Similarly, the Companies and Allied Matters Act 1990 laws of the Federation of Nigeria stipulate that the audit committee must consist entirely of three directors and three shareholders per corporate governance standards (Dabor and Adeyemi, 2009). Studies by Abbott, Parker, and Peters (2004), Vafeas (2005), Mohiduddin and Karbhari (2010), Huang and Thiruvadi (2013), and others indicated that an audit committee presided over by independent NEDs consisting of no more than three members is a more effective means of monitoring management activities. Vafeas (2005) hypothesised that a lack of independent directors could impact the audit committee's efficacy.

One significant factor crucial for the efficient performance and discharge of responsibilities, which reduces fraud, is the audit committee's size. As per the Cadbury Committee (1992), several corporate governance assessments suggested having a minimum of three directors on the audit committee (New York Stock Exchange, 2002). The research showed that a large committee has greater organisational standing, authority, and a wider range of ideas. Conversely, if it grows too big, it may become vulnerable to inefficiencies, sluggish processes, and authority diffusion. This could make it more difficult to detect fraud. Since the audit committee's procedures are brief and efficient, its small size may make it easier to manage and more effective at carrying out its duties.

According to Anderson (2004), a large audit committee size could lead to less critical debate; this could take up a lot of time, make it challenging to achieve cohesiveness, and hinder the audit committee's efficacy. An excessive number of individuals in one location may not collaborate effectively (Klein, 2002). This is due to the difficulty in organising and facilitating their conversations, which could harm report quality and reduce the audit committee's efficacy. This aligns with research conducted in 2004 by Bryan and Tiras, who found that an audit committee's size played a significant role in determining how effective the committee was. Wakaba (2014), however, suggests in his research that a larger audit committee is associated with lower performance. The audit committee size in Nigerian organisations is moderate; the corporate governance code specifies three directors and three non-directors, which gives room for efficient oversight duty that can lead to the detection and prevention of fraud. It is, therefore, essential to investigate if the moderate size of the audit committee has helped detect and prevent fraud in Nigerian organisations.

Another crucial aspect of a successful board is how often it meets. It correlates with increased financial reporting openness since it measures the desire to

monitor a company's financial reporting procedure (Goodwin-Stewart & Kent, 2006; Engel, Hayes, & Wang, 2010). Compared to a board that meets infrequently, which might not focus on these matters and might approve management plans, a board that meets more frequently should be able to dedicate more time to topics like real profits management (Nicola, 2006). Regular meetings of the audit committee facilitate improved communication between auditors and members. An audit committee is better educated about accounting and auditing matters if it interacts with internal auditors more often (Aderemi, Osarumwense, Kehinde & Egbide, 2016).

Audit committee meetings are crucial to the creditors' interaction with the companies (Anderson et al., 2004). According to Zhang, Zhou, & Zhou (2007), in a 1999 Blue Ribbon Committee (BRC) report, companies require extra meetings to address issues, including deficiencies in internal control. Meeting frequency may indirectly reveal the effectiveness and activity of audit committee monitoring and its diligence in discharging duties (Abbott et al. 2004 & Anderson et al. 2004). Abbott et al. (2004) opined firms are more likely to hire auditors with industry expertise if independent audit committees convene at least twice a year. Compared to non-fraudulent organisations, Beasley et al. (2000) found that audit committees of fraudulent enterprises meet less frequently. Meeting frequency has been linked to reduced debt financing costs, yield spreads, and the kinds of auditing modifications that the firm implements, as demonstrated by Anderson et al. (2004).

Corporate audit committees must convene frequently to carry out their responsibilities effectively and efficiently, as stipulated by the Sarbanes-Oxley Act of 2002. The Blue Ribbon Committee recommends that the audit committees convene regularly to carry out their oversight duties (Asiriwuwa, Aronmwan, Uwuigbe, & Uwuigbe 2018). The Nigerian Code of Corporate Governance (NCCG 2018) accordingly stipulates that the audit committees of publicly traded firms are required to convene at least once per quarter. This suggests that every organisation's audit committee meeting is crucial for discussing the concerns and supervisory duties that may lead to detecting and preventing fraudulent activities. Frequent audit committee meetings may create fear in the minds of fraudulent employees who may want to embark on fraudulent activities as these meetings necessitate detailed discussions on the happenings in the organisations. As the committee meets, issues concerning the organisation's growth, well-being, progress, and any further issues that may affect the organisation are discussed. From the preceding, the following hypothesis is suggested:

H1: Audit committee size and meetings are positive and significant in detecting and preventing financial statement fraud in the quoted companies in Nigeria.

2.2 **Audit Committee Expertise, Audit Committee Independence and Financial Statement Fraud**

Financial expertise on the audit committee is another crucial component of a successful audit committee that merits further examination. Financial expertise is defined as having an accounting degree, being financially literate, and having practical experience in corporate finance (Agrawal & Chadha, 2005). The availability of accounting and auditing specialists in the audit committee boosts the committee's performance because those who carry out this crucial responsibility need considerable financial expertise to perform more effectively (Aderemi et al., 2016). Financial and accounting audit committee members are seen to be better able to spot financial abnormalities (Persons, 2005). He, Labelle, Piot and Thornton (2009) opined that the audit committee's efficacy can be increased by including at least one financial expert because these experts are obligated to guide the committee in identifying and posing informed questions that can put the management under pressure. When it comes to accounting estimates, judgments, and applications of accounting principles, an experienced audit committee member can help external auditors negotiate and challenge management (Deli & Gillan, 2000; DeZoort & Salterio, 2001). Aderemi et al. (2016) believe that an audit committee's experience and knowledge of accounting and auditing-related matters are crucial and that members with a strong financial background are more likely to recognise and stop financial statement fraud. Farber (2005) and Abbott et al. (2004) provided evidence that financial expertise by audit committees can enhance monitoring and oversight responsibilities in the financial reporting process, thereby bolstering the notion that such expertise is a crucial attribute in managing the conduct of managers. Due to their understanding of the intricacies of the financial reporting that management presents, audit committee expertise has been shown to help organisations limit the opportunistic conduct of management staff (Krishnan, 2005; Zhang et al., 2007; Lo, Wong & Firth, 2010).

Regulators recognise the value of financial expertise in audit committee operations. According to the exchange regulations and the Sarbanes-Oxley Act, all audit committee members must be financially literate and have at least one person with experience in accounting or financial management. The Sarbanes-Oxley Act of 2002 mandated that at least one audit committee member possess financial expertise. Members of audit committees in Nigeria are also required by NCCG (2018) to be financially literate or have the ability to read and comprehend financial accounts. Therefore, the audit committee's expertise becomes essential to the financial reporting process.

Another critical aspect of the financial reporting process is the independence of the audit committee. It is an essential and distinctive quality of the audit committee. Independent members of management are typically thought to be

better monitors. One way to characterise independence is as an abstract state of the human mind that is too complicated to be reduced to a legal code and lacks a clear description. It is a quality that those in positions of authority are expected or need to possess. Independence exists in a continuum of two opposing extremes: total independence on the extreme left and total reliance on the extreme right represent the two opposing extremes of independence. Positions on the far left of the continuum are preferred due to professionalism, objectivity, and high ethical standards. Intimidation, self-interest, self-reflection, familiarity, and advocacy may threaten independence. The board believes that non-executive directors with no financial ties to management should be, by definition, independent of management. How well an independent director participates in high-quality judgments within their particular organisations determines how highly valued they are (Ilaboya & Lodikero, 2017).

The corporate governance guidelines stipulate that companies listed on the Nigeria Exchange Group must have an audit committee with a minimum of three members who must be firm directors and an equal number of directors and shareholder representatives. The level of managerial oversight increases with the number of independent directors on the audit committee (Helland & Sykuta, 2005). Audit committees composed entirely of independent directors decreased the company's ability to manipulate earnings (Saleh, Iskandar, & Rahmat 2007).

Felo and Solieri (2009) found that the likelihood of aggressive financial reporting manipulation by corporate management increases in the absence of an independent audit committee. An independent audit committee's duty to oversee financial matters and guarantee the quality of financial reporting enhances the monitoring process (Siagian & Tresnaningsih, 2011). Because there is a negative correlation between an independent audit committee and financial reporting fraud, having a high proportion of independent, non-executive directors on the audit committee will result in lower financial reporting fraud (Beasley, 1996).

The literature on the connection between financial statement fraud and independent directors falls into two categories. According to the first and more widely accepted research strand, the two variables had a negative correlation. They contend that financial statement fraud is decreased when non-executive directors are present. Research by Klein (2002), Peasnell, Pope, and Young (2005), and Anderson, Masi, and Reeb (2004) revealed a negative correlation between financial statement fraud and board independence. This implies that by lowering the possibility of financial statement fraud, board independence improves the quality of financial reporting. Using SEC enforcement actions as a proxy for financial statement fraud, Chen, Firth, Gao, and Rui (2006) found a negative correlation. Fama (1983) asserts that outside directors contribute to the internal control framework of the board.

According to the second strand of literature, there is either no correlation or a positive relationship between financial statement fraud and board independence. It was discovered that there was an insignificant correlation between financial statement fraud and the participation of non-executive directors on the board (Ohiokha, 2017). Similar findings were made by Park and Shin (2004), who found a link between financial statement fraud and non-executive directors. Agrawal and Chadha (2005) discovered no connection between financial statement fraud and board independence. According to proponents of the positive connection, independent directors aren't motivated enough to oversee management adequately.

Additionally, it has been observed that some independent directors only appear to be independent on the surface because they have financial or social connections to management. This apparent independence seems to reduce the efficacy of the independent director (Hwang & Kin, 2009). Nothing appears to have changed in the modern era despite this claim being made in the past. The various empirical literature threads indicate that there is still much to be determined about the relationship between financial statement fraud and board independence. This inconsistency formed the basis of this study. Thus, the following hypothesis is formulated:

H2: Audit committee expertise and board independence have significantly led to detecting and preventing the likelihood of financial statement fraud among companies in Nigeria.

3. Methodology

This study focused on the empirical analysis of the effects of audit committee characteristics on the likelihood of financial statement fraud in Nigeria. The study adopted the ex-post factor research design and relied on historical data. The study uses secondary data extracted from the companies' annual financial reports from 2018– 2022, five (5) years. The population of this study comprises 94 listed companies from the banking, industrial goods, health care, and consumer group sectors with documented fraud cases and quoted on the Nigeria Exchange Group during the study period. The study adopted non-probability sampling techniques and purposively selected fifty (50) companies. The selection was based on the availability of their complete financial statements and the presence of the information needed for our analysis. Based on this criterion, fifty companies meet the requirement; therefore, the sample size is restricted to these fifty companies.

3.1 Description of Research Variables

The independent variable is audit committee characteristics proxied by audit committee Size, meeting, board independence and audit committee expertise.

Financial statement fraudlikelihood is the dependent variable. Numerous techniques have been developed to aid regulators and auditors in identifying the likelihood of financial statement fraud. Some of these include the Beneish M-score and F-score. A statistical model called the Beneish M-score uses financial ratios to assess the falsification of financial statements. The F-score creates a score based on Beneish to identify whether organisations have significant misstatements. Beneish M-score, however, was utilised in this study because of its widespread use and for easy comparison of the findings of this study with past studies. The Beneish M score was used to classify the sampled firms as manipulators or non-manipulators. Manipulators will be allocated a Beneish M score of 1, where the Beneish M index is larger than -2.22. At the same time, non-manipulators will be assigned a Beneish M score of 0, where the Beneish M index is below the -2.22 benchmark (Beasley, 1996). The variables contained in the Beneish M-Score consist of days sales receivable index (DSRI), gross margin index (GMI), depreciation index (DEPI), sales growth index (SGI), leverage index (LVGI), total accruals to total assets (TATA), asset quality index (AQI), and sales general administrative index (SGAI). The formulas for these variables are as follows:

$$DSRI = \frac{\text{Receivables}_t / \text{Sales}_t}{\text{Receivables}_{t-1} / \text{Sales}_{t-1}}$$

$$GMI = \frac{\text{Sales}_{t-1} - \text{Cost of goods sold}_{t-1} / \text{Sales}_{t-1}}{\text{Sales}_t - \text{Cost of goods sold}_t / \text{Sales}_t}$$

$$DEPI = \frac{\text{Depreciation}_{t-1} / (\text{Depreciation}_{t-1} + \text{PP\&E}_{t-1})}{\text{Depreciation}_t / (\text{Depreciation}_t + \text{PP\&E}_t)}$$

$$SGI = \frac{\text{Sales}_t}{\text{Sales}_{t-1}}$$

$$LVGI = \frac{LTD_t + \text{Current Liabilities} / \text{Total Asset}_t}{LTD_{t-1} + \text{Current Liabilities}_{t-1} / \text{Total Asset}_{t-1}}$$

$$TATA = \frac{(\Delta \text{Current Asset}_t - \Delta \text{Cash}_t) - (\Delta \text{Current Liabilities}_t - \Delta \text{Current Maturities}_t \text{ of LTD}_t) - (\Delta \text{Income Tax Payable}_t - \text{Depreciation and Amortization}_t)}{\text{Total Asset}_t}$$

$$AQI = 1 - \frac{(\text{Current Asset}_t + \text{PP\&E}_t)}{\text{Total Asset}_t}$$

$$1 - \frac{(\text{Current Asset}_{t-1} + \text{PP\&E}_{t-1})}{\text{Total Asset}_{t-1}}$$

$$SGAI = \frac{\text{Sales, general, and administrative expense}_t / \text{Sales}_t}{\text{Sales, general, and administrative expense}_{t-1} / \text{Sales}_{t-1}}$$

The Beneish M-score formular is:

$$M\text{-score} = -4.84 + 0.92 * DSRI + 0.528 * GMI + 0.404 * AQI + 0.892 * SGI + 0.115 * DEPI - 0.172 * SGAI + 4.679 * TATA - 0.327 * LVGI.$$

3.2 Control Variables

Some control variables are included in the model to investigate the relationship between the dependent and independent variables and lessen the bias caused by omitting prospective variables. With the help of literature, these control variables connected to our model were added to this research regression. The first is the firm size (FSIZE), which is derived using the natural log of total assets, and the second is firm age (FAGE), which is the number of years when the company was first traded on the floor of the Nigeria Exchange Group to date.

3.3 Model Specification

The following model, built from the current literature, was to investigate the impact of audit committees on financial statement fraud likelihood (FSFL). The model from Madah, Haji-Abdullah, Othman, Abdul, and Harymawan (2019) was modified for this study. Their model, as stated, is as follows:

$$FSFL_{it} = \beta_0 + \beta_1 \text{ Audit Committee Size}_{(t-1)} + \beta_2 \text{ Audit Committee board independence}_{(t-1)} + \beta_3 \text{ Audit Committee Meetings}_{(t-1)} + \beta_4 \text{ audit committee expertise}_{(t-1)} + \beta_5 \text{ Control variables}_{i(t-1)} + \varepsilon$$

(1)

Financial statement fraud likelihood (FSFL) was used as the dependent variable in the above model, and board independence (BIN), audit committee size (ACS), audit committee meetings (ACM), audit committee expertise (ACE), and audit committee composition (ACC) were used as the independent variables.

Therefore, the model used in this study is stated in the functional form as follows:

$$FSFL = f (ACS, BIN, ACM, ACE) \tag{2}$$

Equation two is changed by integrating the control variables of firm size and firm age that could affect variation in the dependent variable of financial statement fraud likelihood. This can be started as follows:

$$FSFL = f (ACS, BIN, ACM, ACE, \dots, CONTRL) \tag{3}$$

Expressly, the model for the two hypotheses is stated as follows:

Hypothesis One:

$$FSFL_{it} = \beta_0 + \beta_1 ACS_{i,t} + \beta_2 ACM_{i,t} + \beta_3 FSIZE_{i,t} + \beta_4 FAGE_{i,t} + \varepsilon \tag{4}$$

Hypothesis Two:

$$FSFL_{it} = \beta_0 + \beta_1 ACE_{i,t} + \beta_2 BIN_{i,t} + \beta_3 FAGE_{i,t} + \varepsilon \quad (5)$$

Where:

FSFL = financial statement fraud likelihood

ACM = Audit committee meeting

ACS = Audit Committee Size

ACE = audit committee expertise

BIN = board independence

β_0 = constant term

$\beta_1, \beta_2, \beta_3$ = regression coefficients/parameter to be estimated

i = the company

t = time factor

μ = error term.

3.4 Technique for Data Analysis

Econometric tools such as descriptive statistics, correlation analysis, and the choice of the fixed effect or random effect model were used to analyse the data collated. The choice of the fixed effect or random effect model was based on the outcome of the Hausmann test. Specifically, Panel regression analysis was applied to measure the degree of association between the variables under consideration.

3.5 Justification of Methods

Since this study used panel data, a combination of cross-section and time series, analysing the data using panel regression analysis was the best method because the panel regression properties are known to capture individual characteristics of the sampled population. The objective of the panel regression technique is to minimise the error term to find the model or regression equation that explains the data.

4. Discussion of Result

The data from the company's annual report from the different sectors were analysed and interpreted, and the findings were discussed. Two hypotheses were tested at a .05 level of significance and presented accordingly.

4.1 Pre-Test

4.1.1 Descriptive Statistics

Table 1 Descriptive statistics of variables for the period

	FSFL	ACS	ACM	ACE	BIN	FSIZE	FAGE
Mean	0.596	5.488	3.928	0.325	12.566	5.726	39.100
Maximum	1.000	8.000	7.000	0.750	75.000	9.881	78.000
Minimum	0.000	3.000	0.000	0.000	0.000	0.000	12.000
Std. Dev.	0.492	0.813	1.103	0.145	15.050	3.314	15.734
Skewness	-0.391	-0.613	-0.452	0.362	1.269	-1.029	0.076
Kurtosis	1.153	3.795	5.760	1.967	4.635	2.342	1.976
Observations	250	250	250	250	250	250	250

Source: E-view 13.0 Output, 2024

The descriptive statistics in Table 1 show the characteristics of the variables used in the study. As observed, the mean value of ACS (i.e. audit committee size) stood at 5.488. This implies that the average audit committee member of the listed firms under investigation is five (5) members. The maximum and minimum values of 8 and 3 represent the highest and lowest sizes of the audit committees of the listed companies under study. Similarly, the mean value of 3.928 of ACM (audit committee meetings) suggests that, on average, the audit committee of the studied companies holds meetings approximately four times a year. The maximum value of 7 shows that the highest number of meetings held by the company’s audit committee under investigation between 2018 and 2022 were seven (7) times a year, while the minimum number of 0 signifies that some companies did not have meetings at all in some years. Also, the mean value of ACE (audit committee expertise) stood at 0.325; this indicates that, on average, 32% of the audit committee members have financial skills. The maximum value of 0.750 suggests that in some of the years studied, 75% of the audit committee members of the sampled companies have financial skills. The minimum value of 0% indicates that some companies have a board of audit committees with no financial skills.

Further, the mean values of 12.566 for board independence (BIN) suggest that, on average, a good number of the members are independent. The maximum value

of 0.75 shows that the highest percentage composition of the independent members in the audit committee of the studied firm is 75% of the total size of the audit committee. In comparison, the minimum value of 0.25 shows that the lowest percentage composition of the independent members in the audit committee of the studied firm is 25% of the total size of the audit committee.

On firm size (FSIZE), represented by the log value of total assets, the mean stood at 5.726. The maximum and minimum of 9.881 and 0.000 represent the highest and lowest total assets of the companies under investigation. On the variable of FAGE, the mean values of 39.100 suggest that the average age of the firms under review is 39 years. Going by the minimum and maximum values, the oldest sampled firm is 78 years old as of 2022, while the youngest sampled firm as of 2020 is 12 years old.

4.1.2 Correlation Analysis

Table 2: Pearson’s correlation matrix among the variables

	FSFL	ACS	ACM	ACE	BIN	FSIZE	FAGE
FSFL	1.0000 00						
ACS	- 0.0272 57	1.0000 00					
ACM	- 0.0538 72	0.2007 14	1.0000 00				
ACE	0.0302 60	- 0.2245 22	- 0.1413 42	1.0000 00			
BIN	0.0918 76	0.0911 62	- 0.0302 18	0.0313 10	1.0000 00		
FSIZE	- 0.0296 78	0.0783 04	0.1167 90	- 0.0025 09	0.4206 15	1.0000 00	
FAGE	0.0343 14	0.0498 74	- 0.0343 08	0.1902 02	- 0.0158 65	- 0.0478 01	1.0000 00

Source: Author’s Computation (2024)

The correlations among the variables were ascertained using the Pearson correlation. One can use the correlation coefficients to determine whether there is any collinearity among the regressors. Table 2 displays the results of the

Pearson correlation. The variables did not show a strong association, according to the results. Therefore, it doesn't seem that collinearity poses a risk to how the independent variables' regression coefficients should be interpreted in this model. The outcome indicates that there is no correlation at all among the variables as they are all positively and negatively far away.

4.2 Panel Regression Analysis

The Hausmann test

The Hausmann test was conducted to determine the best-fit model for our analysis. The Hausmann test hypothesis is as stated below:

H₀: The random effect model is appropriate

H₁: Fixed effect model is appropriate;

If the p-value of the test result, as presented in Table 3 below, is less than 5%, reject the null hypothesis; otherwise, accept the alternate hypothesis. The outcome of the results for hypotheses one and two are shown in Table 3.

The cross-section chi-square statistic with 3 degrees of freedom are 0.085200 and 0.250497, and the p-values are 0.9991 and 0.9928, as presented in Table 3. The p-value of the Hausmann chi-square statistics is higher than 5%, so the null hypothesis is accepted for hypothesis one. In conclusion, the random effect technique is better than the fixed effect technique for the hypotheses.

Table 3: Hausmann Test for Hypothesis One

Hypothesis One			
Test summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.085200	4	0.9991
Hypothesis Two			
Cross-section random	0.250497	4	0.9928

Table 4: Regression Result for Hypothesis One

Dependent Variable: FSFL

Variables	Coefficient	Std Error	t-statistics	Pro.
ACS	-0.014225	0.041059	-0.346458	0.7293
ACM	-0.020493	0.031964	-0.641126	0.5220
FSIZE	-0.002836	0.012267	-0.231201	0.8174
FAGE	0.001061	0.002623	0.404404	0.6863
C	0.729330	0.269182	2.709429	0.0072
R ²	0.36%			
P-value	0.923960			

Source: E-view 13 Output, 2024

The results in Table 4 show that the p-values of the audit committee size and meeting are 0.7293 and 0.5220. They are negatively signed and have no significant effect on the likelihood of financial statement fraud. The size of the audit committee and the number of meetings held did not lead to the detection/prevention of fraud in the financial statement for the study period. These results mean that a unit increase in audit committee size and meetings would not affect the possibility of detecting and preventing fraud in the financial statements. Similarly, a unit decrease in audit committee size would lead to no reduction in financial statement fraud risk. This is to say that audit committee size and meetings do not significantly affect the likelihood of financial statement fraud. In terms of the two control variables, firm size and firm listing age, neither are significant. The overall probability of 0.923960 also supports the fact that the audit committee size and the number of meetings held did not lead to the detection and prevention of fraud during the study period.

The R² of 0.36 percent in Table 4 represents the panel regression’s goodness of fit. The independent variable accounts for only 0.36% of the variation in the dependent variable, with the remaining 99.8% unexplained. This is relatively insignificant, which implies that the detection and prevention of financial statement fraud is massively achieved by other variables not accounted for in this study. Additional variables responsible for the change in the dependent variable were not considered in this work.

The finding of this study is substantiated by the findings of Suleiman and Onipe (2023) and Inaam, Fatma, and Khmouss (2012), Garba Ahmed and Hamisu (2015),

whose study established that the size of the audit committee has not significantly correlated with financial statement fraud. On the other hand, the findings contradict the findings of Ogiriki and Yalah (2022) and Oyedokun, Olatunji, and Musa (2020), whose study established a significant and positive effect of audit committee size on financial statement fraud.

Based on the findings, the null hypothesis is accepted, concluding that audit committee size and meetings have no significant impact on the likelihood of financial statement fraud among the selected companies in the Nigeria Exchange Group.

Table 5: Regression Result for Hypothesis Two

Dependent Variable: FSFL

Variables	Coefficient	Std Error	t-statistics	Pro.
ACE	0.054543	0.228411	0.238794	0.8115
BIN	0.004016	0.002804	1.432554	0.1533
FSIZE	-0.011098	0.013080	-0.848470	0.3970
FAGE	0.000952	0.002603	0.365618	0.7150
C	0.554138	0.143364	3.865250	0.0001
R ²	0.98%			
P-value	0.657574			

Source: E-view 13 Output, 2024

The results in Table 5 show that the p-values of the audit committee expertise and the board independence are 0.8115 and 0.1533, respectively. They are positively signed and have no significant effect on the likelihood of financial statement fraud. In terms of its coefficients, it can be observed from Table 5 that the measures of audit committee characteristics, audit committee expertise, and board independence produce a positive coefficient value. This indicates that the audit committee's expertise and board independence are most likely able to detect and prevent financial statement fraud; however, this impact is insignificant for the study period.

The R² of 0.98 percent represents the panel regression's goodness of fit. The independent variable accounts for only 0.98% of the variation in the dependent variable, with the remaining 99.02% unexplained. This implies that the detection

and prevention of financial statement fraud is massively achieved by other variables not accounted for in this study. Additional variables responsible for the change in the dependent variable have not been considered in this work. The findings of this study are supported by the findings of Ilaboya and Lodikero (2017).

Based on the findings, it is concluded that board independence may likely positively impact the likelihood of financial statement fraud among the selected companies in the Nigeria Exchange Group.

5. Conclusion

Financial statement fraud has been emphasised in the business discourse as a global hindrance to the existence and future of corporate organisations, regardless of their size or nature. The downfall of several well-known firms throughout the years due to financial and accounting fraud is evidence. Regulators worldwide have tried several times to solve the issue, but their efforts have not yet produced the expected outcomes. However, most people agree that an audit committee, an internal corporate governance tool, is an excellent way to stop, find, and manage the impact of financial statement fraud.

Thus, this study investigates the impact of audit committee characteristics on preventing and detecting financial statement fraud of selected quoted companies in the Nigeria Exchange Group. Based on the random effects regression model, we established mixed findings. Our research indicates negative, positive and non-statistically significant impacts of audit committee size, meetings, board independence and committee expertise on the detection/prevention of financial statement fraud in the selected companies. Audit committee size and meetings have a negative and insignificant effect on the detection/prevention of financial statement fraud. In contrast, audit committee expertise and board independence have a positive and insignificant impact on the detection/prevention of financial statement fraud. We discovered that there is zero significance for any of the proxies for audit committee characteristics. The study's analytical output indicates a negative/positive and no statistically significant correlation between financial statement fraud and the audit committee characteristics proxies.

In conclusion, audit committee characteristics have no significant impact on the detection and prevention of financial statement fraud for the period. However, the audit committee's expertise and board independence positively affect the detection/prevention of financial statement fraud. The positive nature implies that the audit committee's expertise and board independence may prevent fraud in the sampled companies. However, this is not significant in this study as the general findings show that audit committee characteristics do not significantly impact detecting and preventing fraud in financial statements.

6. Recommendation

- i. The audit committee size is a factor in check mating managers' opportunistic attitudes. Increasing the proportion of independent members and including financial experts on the audit committee is crucial for effective oversight and reducing the likelihood of fraud.
- ii. The management should train board members on the latest financial reporting and fraud detection developments. This can help them stay informed and vigilant in detecting fraudulent activities.
- iii. The audit committee's meetings are not the number of meetings that determine the monitoring but the insight of the members who may be able to understand which direction management is going and what its economic repercussions are to the firm. The audit committee meetings should have more professionals knowledgeable in the field to detect and prevent fraudulent activities from occurring.
- iv. An audit committee comprising members with financial knowledge reduces the mesmerising of the financial statement. So, the management should ensure that board members have the necessary financial and industry expertise. This can help them better understand and monitor financial statements and detect potential fraud.

7. Limitations of the Study

It is believed this study has some limitations. These are enlightened below:

1. This study is limited to the variables used as a proxy. Other variables, such as audit committee tenure, gender, and board composition, were not covered in this study and can be investigated by other studies. This study is limited to the variables mentioned above.
2. The study looks at the companies listed in the Nigeria Exchange Group wholestic. Future studies can do a sectoral study to establish the effect of financial statement fraud on the likelihood of fraud in those sectors.
3. Finally, this study extended to 2022 as a result of available financial statements at the time of this study. Future research can extend to 2024.

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