

MODERATING EFFECT OF RISK MANAGEMENT COMMITTEE ON THE RELATIONSHIP BETWEEN BOARD CHARACTERISTICS AND FINANCIAL REPORTING QUALITY

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Abstract

This study examined the moderating effect of risk management committee on the relationship between board characteristics and financial reporting quality among listed non-financial firms in Nigeria. The study employed ex post facto research design. The population of the study consisted of 116 non-financial companies quoted on the Nigerian Stock Exchange (NSE) as at 31st December, 2020. The sample size of forty-nine (49) companies was determined using the Taro Yamane sampling size technique. Data collected for this study were solely from secondary sources. Data were extracted from the Published Audited Accounts and Financial Statements and the Annual Reports of the listed non-financial firms in Nigeria. The study adopted the use of multiple regression to analyse the data. The result of the fixed effect regression as suggested by the Hausman specification test revealed that risk management committee has significant moderating effect on the relationship between board gender diversity, board financial expertise, board independence and financial reporting quality among listed non-financial firms in Nigeria. On the other hand, the study found that risk management committee as a moderator has no significant moderating effect on the relationship between board size and financial reporting quality among listed non-financial firms in Nigeria. This is because the presence of board size adds little or no improvement to financial reporting quality. Hence, from the findings, the study concluded that risk management committee is indeed a viable governance strategy aimed at improving the financial reporting quality through the scrutiny of the assessment and disclosure of risks inherent in the company. From the findings and conclusion, the study recommended that non-financial companies should strengthen their corporate governance system through establishment of a risk management committee to dissect the vulnerable areas that might threaten the going concern of the companies.

Keywords: Board characteristics, Corporate governance, Financial reporting quality, Risk management, Risk management committee.

Introduction

Financial reporting is a requirement for firms by the International Financial Reporting Standards (IFRS) and many regulatory agencies across the globe. It is a means by which enterprise conveys information regarding its financial performances and conditions to its external users and other stakeholders. The objective of financial reporting as stipulated by IFRS is to inform both current and potential investors to make rational investment decisions and assess the expected firm cash flows. It is a known fact that “better” corporate governance may lead to improved financial reporting, however there is a divergent agreement as to what constitutes “financial reporting quality.” For example, the Sarbanes-Oxley (2002) and Blue-Ribbon Committee (BRC, 1999) requires auditors to discuss the quality of the financial reporting methods and not to rely on their acceptability alone, however the view on the quality of financial reporting still remains an unclear concept. Thus, financial reporting quality can simply be defined as “the precision with which financial reporting conveys information about the firm’s operations, in particular its expected cash flows that inform equity investors” (Biddle et al., 2009, p.113).

Corporate governance (CG) and financial reporting are very much interwoven. A significant number of empirical studies has provided evidence that the quality of financial reporting system to a large extent depends on corporate governance mechanisms such as board characteristics (Wati et al., 2020;

, 2005; Farber, 2005). Hence, financial reporting quality is regarded as a vital part of corporate governance mechanisms (Kulustayeva et al., 2020; Wati et al., 2020; Tjahjadi et al., 2020; Chanatup et al., 2020; Melis, 2005; Melisa & Carta, 2010). In the light of current macroeconomic challenges, corporate governance is seen as a significant driver of financial reporting quality in firms (Okpamen & Ogbeide, 2020). This is because the cause of collapse of most of the gigantic companies were attributed to poor corporate governance. For example, the spread of financial and accounting scandal that resulted to the sudden collapse of significant number of international companies (which had indicated positive financial report) such Parmalat Company in Europe in 2003, Chuo Aoyama in Asia, JCI and Randgold in South Africa. The trend was replicated across the globe as evidenced by WorldCom and Enron in U.S.A (Sorensen & Miller, 2017) and Cadbury Company in Nigeria (Muriuki et al., 2018).

Further, in recent times, the COVID-19 pandemic has wreaked havoc on the global economy and financial markets, exacerbating the systemic risk management issues already faced by companies around the world. As companies continue to navigate an uncertain economic landscape and make plans to resume operations as pandemic-related restrictions are relaxed or lifted, they must also grapple with the fact that the pandemic has amplified the scrutiny of environmental, social and governance (ESG)-related risks and so on. Thus, in these unprecedented times, beyond economic losses, the reputational damage to companies, boards and management teams that fail to properly manage risk will be substantial. It is for these reasons that the risk oversight function of boards of directors has never been more critical and challenging than it is today. Hence, the need to incorporate risk management committee as one of the vital corporate governance mechanisms cannot be overemphasized.

Problem Statement

The relationship between corporate governance (CG) mechanisms and financial reporting quality is still inconclusive. Likewise, the inconclusiveness of the results of previous studies in this area could be attributed to the existence of different context and environment in which CG is implemented. Also, prior research has neglected the indispensable role of risk management committee as one of the essential mechanisms for Good Corporate Governance (GCG) mechanisms especially with regard to this period of post covid-19 era. And according to Yatim (2010) "poor risk management is a symptom of poor corporate governance practices".

Over the years, the reports from Enron, WorldCom and other concerned financial institutions have shown that there have been substantial financial information irregularities in the way companies have reported their annual reports. Nowadays, many non-financial institutions and financial institutions have either collapsed or is in the verge of collapsing and in need of government rescue in spite of the reported unqualified audit reports. These developments have ushered in the need to focus attention more on the quality of financial statements report and thereby encouraging researchers and regulators to seek for ways to improve the quality of the financial reporting process and its integrity. This can be achieved by instituting appropriate mix of Board of Directors (BOD) especially in terms of their attributes such as gender diversity, financial expertise, size and independence.

More so, the failure of significant number of both financial and non-financial institutions to fully integrate risk management practices into the corporate governance (CG) led to colossal failures at a global level (Elamer et al., 2018; Berger et al., 2016; Dermine, 2013). The performance of these institutions and their accountability as well as their risk-taking behaviour have come under increased scrutiny (Berger et al., 2016; Hines & Peters, 2015; BCBS, 2015; Aebi et al., 2012).

Furthermore, this study is motivated by several major considerations and differs from other previous studies in many ways. Firstly, significant number of studies have been carried out on the link between corporate governance mechanisms (such as board characteristics) and financial reporting quality but have produced mixed results (Bensaid et al., 2021; Ogbeide et al., 2021; Al-Khonain & Al-Adeem, 2020; Aifuwa & Embele 2019; Albawwat & Al harasees, 2019; Umobong & Ibanichuka, 2017; Moses

2019; Onuorah & Imene, 2016; Kamolsakulchai, 2015; Oba, 2014; Bala & Ibrahim, 2014; Myring & Shortridge, 2010, Ong & Wan, 2008; Mansi & Reeb, 2004; Singh & Davidson, 2003; Mak & Li 2001). Secondly, some of the studies have so far been done in different sectors and locations and have reported conflicting results. More specifically, previous studies on the relationship between corporate governance and financial reporting quality in Nigeria focused more on financial institutions (banks) that constitutes about 20% of the total listed financial firms. Therefore, concentrating on non-financial listed firms would provide a more comprehensive insight and robust explanation.

Additionally, the study introduced a moderator because of the inconsistency and mixed results between corporate governance and financial reporting quality. Hence, the essence of introducing the moderator in this study is to find out whether RMC has the capacity to strengthen or weaken the oversight function of the AC, thereby improve the quality of financial report. Also, there is barely little or no study that has studied the effect of risk management committee in moderating the relationship between Board characteristics and financial reporting quality especially within the context of Nigeria. Additionally, this study is informed as a result of several calls for future study (Ahmed 2019; Ishak and Mohamad Nor 2017; Dabari and Saidin 2014; Hassan et al. 2012; Liew et al. 2012; Subramaniam and Carey 2011; Subramaniam et al., 2009; Yatim 2009; and Yatim 2010. Lastly, the motivation for this study is that RMCs are found to be generally combined or integrated with audit committees (KPMG, 2005). This is because a combined RMC is found to be less efficient compared to the one with separate committee, as such future studies needs more empirical evidence to validate this assumption.

Objectives of the Study

The main objective of this study is to examine the moderating effect of risk management committee on the relationship between board characteristics and financial reporting quality among listed non-financial firms in Nigeria. Thus, the specific objectives are to;

- i. examine the effect of board characteristics (gender diversity, financial expertise, size and independence) on financial reporting quality of listed non-financial firms in Nigeria.
- ii. examine the moderating effect of risk management committee on the relationship between board characteristics and financial reporting quality of listed non-financial firms in Nigeria.

Statement of the Hypotheses

The following hypotheses are formulated in order to achieve the above stated objectives

HO₁: Board characteristics have no significant effect on financial reporting quality of listed non-financial firms in Nigeria.

HO₂: Risk management committee has no significant moderating effect on the relationship between board characteristics and financial reporting quality of listed non-financial firms in Nigeria.

Literature Review

This section discusses the relevant and related literature to the study. The main items discussed in this section include: financial reporting quality, corporate governance mechanisms and risk management committee, review of empirical studies and lastly theoretical framework underpinning the study.

Financial Reporting Quality

Financial reporting quality refers to the extent that accounting information presented to users are free from misstatements and other unethical accounting and managerial practices. In addition, quality financial reports give both shareholders and other stakeholders the opportunity of understanding the financial statements thereby reducing information asymmetry. Financial reporting quality can also be defined as “the precision with which financial reporting conveys information about the firm’s operations, in particular its expected cash flows that inform equity investors” (Biddle et al., 2009, p.113). Jonas and Blanchet (2000) explained that financial reporting quality has two main issues. The first issue relates to user needs, and the second issue relates to shareholder and (or investor protection).

Corporate Governance Mechanisms

Board Characteristics

The phrase “board characteristics” involves two blended concepts; board and characteristics. The term board as stipulated in Section 334 (1) of the Companies and Allied Matters Act 2004 (as amended),

usually refers to the board of directors that is entrusted with the duty. Thus, board characteristics can be described as “one internal corporate governance mechanism which expatiates on the features of the board”. According to Anderson et al. (2004) the characteristics of the board includes size, diligence, independence, diversity (gender, age, expertise, nationality, educational and functional background) and committee structure.

Gender Diversity (Female on Board)

There are significant streams of literature that discusses the way and manner in which male and female board member's characteristics should reflect on how the board selects their leadership style and decision making process (Duc & Thuy, 2013; Renee & Daniel, 2009; Smith et al., 2005). Significant number of studies have shown that female directors are risk averse and are stricter monitors as well as fond being in support of less risky policies and financial decisions when compared to their male directors (Oyenike et al., 2016). Adams and Ferreira (2009) highlighted that female board members are associated with improved profitability, good governance credentials and stronger board monitoring capacity leading to an improved financial reporting quality.

Board Size

Board size is generally measured by the total number of directors on the board of the company (Alzoubi, 2014; Cheng, 2008; Byard et al., 2006; Beasley, 1996). Studies of Ezat and EL-Masry (2008) and Beasley et al. (2000) found that the high number of board members results in users receiving information more quickly, and improving performance efficiency. However, Jensen (1986) asserted that a high number of board members causes a lower operating efficiency and related problems, as members assume that the company will be audited by involved participants but there is no such act (free-riders).

Board Expertise

Kirkpatrick (2009) highlighted that the role of board acting in the capacity as adviser to the CEO is essential so as to enhance the organization's value. Both the internal and external directors are required to use their experience and expertise in improving the quality of financial report. This is important because it ensures easy provision of access for financing the company (O'Commor et al., 2006).

Board Independence

Uwuigbe (2011) described board independence as ‘the number of independent non-executive directors on the board in relation to the total number of directors. Fama and Jensen (1983) stressed that the assumption here is that boards that has a significant number of outside directors tend to be more independent and usually makes a better decision than boards that are dominated by insiders as a result of their independence from management and their fiduciary duty to shareholders. One of the salient factors that may likely affect the accuracy and quality of financial reports is the board member's composition. A more independent board has more chances of producing financial statement that is unbiased.

Risk Management Committee

According to Hopkin (2013) risk refers to a collection of uncertain events that exerts a negative effect on firms. Therefore, managing risk is associated with attaining the best results in minimizing the risk that occurs in the organization (Hopkin, 2013). Thus, risk management is the attainment of results in line with what is anticipated, hence risk management is very vital for the organization to achieve its goals (Hopkin, 2013). Risk management committee (RMC) is a board sub-committee and the establishment of this committee has a direct relationship with the BOD. Similarly, Yatim (2009) emphasized that the focal point of establishing the RMC is to solely focus on proper and adequate management of risks. In most countries, the establishment of RMC is still voluntary, particularly for non-financial companies (Subramaniam et al., 2009; Ahmed, 2019). RMC establishment is considered as playing the role of

complementing the oversight function of the board of directors (BODS) and which may go a long way to reducing the audit committee burden. According to Zaman (2001) it is somewhat impossible to expect AC members to meet up with implement a high level of review considering the obvious time constrain and the requisite expertise. De Lacy (2005) recommended that separating the audit committee and RMC, especially with regard to complexity of business industries, where the committee could comprise of various levels of cadre, qualifications and experiences.

Empirical Review

Board Characteristics and Financial Reporting Quality

Almaqtari et al. (2021) examined the impact of corporate governance mechanisms on financial reporting quality with regard to Indian Accounting Standards (Ind. AS) and Indian GAAP. The study selected a sample of 97 companies listed on the Bombay Stock Exchange. Corporate governance was measured using board effectiveness (board expertise, size and independence), audit committee attributes (expertise, size and independence), foreign ownership, and audit quality. Descriptive statistics, correlation, and OLS regression were used to estimate the results. Their findings show that board characteristics have a significant effect on financial reporting quality.

Adebiyi (2017) conducted a study to find how board composition affects financial reporting quality of deposit money banks in Nigeria. The study used a sample of fifteen commercial banks spanning from 2005-2016 and the data was analyzed using ordinary least square (OLS) regression and panel data estimation technique. The study found that board composition has significant impact on financial reporting quality of deposit money banks in Nigeria, and the discretionary accrual (a proxy) for financial reporting quality turned out to be positively related to board independence and board size.

In contrast to the above studies, Phuong and Hung (2020) investigated the impact of the Board of Directors (BOD) on financial reporting quality (FRQ) in Vietnam listed companies. The study used FEM, REM and GLS regression models and data was collected at energy enterprises listed on the stock market in Vietnam ranging from 2010 to 2018 with 2162 observations. Findings show that BOD size and BOD independence has a positive impact on FRQ while company size has a negative impact on FRQ. The findings also show that the percentage of female BOD members do not have impact on FRQ.

Similarly, Aifuwa and Embele (2019) investigated the 'impact of board characteristics on financial reporting quality of listed manufacturing firms. The descriptive and inferential statistics was utilized in summarizing the data and drew inference on the sampled population. The Generalized Linear Model Regression employed to test the hypotheses stated. The board expertise was statistically found to be significant and positively related to financial reporting quality, while board independence and board diversity was found to be insignificantly related to financial reporting quality. The study therefore, concluded that board characteristics partially affect financial reporting quality.

Also, Ibrahim and Jehu (2018) examined the relationship between board composition and financial reporting quality, and they highlighted that the component of independent board composition is in twofold; that is non-executive directors and independent non-executive directors. They utilized data from 576 Nigerian firms for the period spanning from 2011 to 2016. Thus, their multivariate regression results revealed that the proportions of the non-executive directors and that of the independent non-executive directors have a negative and significant relation with abnormal accruals, which goes a long way to improve the financial reporting quality. However, the coefficient of board size failed to show any significance. And this finding is considered to in line with the agency theory prognosis.

More so, Onuorah and Imene (2016) assessed the indicators corporate governance measure on the firm financial reporting quality in Nigeria on some selected companies (like brewery, banking, oil and gas, and beverage companies). The findings from the analysis show that the correlation among corporate governance indicators like the board size and board independence on the financial reporting quality is 93.47%. Further revealed that board size had a positive impact on the financial reporting quality whilst board independence negatively affects financial reporting quality.

Risk Management Committee and Financial Reporting Quality

Malik et al. (2021) examined whether the adoption of a Board risk committee (BRC) improves firm's access to capital by reducing financial constraints risk while utilizing a sample of 28,265 firm year observations from the U.S. listed firms for the period spanning from 2005 to 2017. Their findings show that the voluntary adoption of a BRC reduces financial constraints risk significantly. Their findings also revealed that BRC characteristics such as size, financial experts and female directors have negative relationship with financial constraints risk. More so, they find that voluntary adoption of a BRC is vital for listed firms especially for those who don't have an effective risk governance structure at the board level. However, their studies vary with the current study due to the fact that the current study will be conducted in a developing country with slight differences in some of the variables that will be considered and as such may produce different results due to contextual differences between the two countries.

Jia (2019) investigated the relationship between risk management committee (RMC) gender diversity and the likelihood of a firm's financial distress. Data were extracted from the annual reports of the top 300 Australian Stock Exchange (ASX) listed companies over the period of 2007 to 2014. In order to control for potential endogeneity, the relationship between RMCGD and the likelihood of a firm's financial distress was examined via the use of an instrumental variable approach (i.e. panel 2SLS regression). Findings revealed that RMCGD is related with a lower probability of financial distress, implying that women are considered to be better at monitoring and reduction of firms' excessive risk-taking behaviors, which invariably leads to a decrease in firms' financial distress risk. Essentially, the proportion of women that has financial experience on RMC are found to be more effective in reducing the chances of financial distress than the proportion of male counterpart that has financial experience on RMC. However, the present studies will focus on the moderating effect of RMC on the relationship between CGM and FRQ of listed nonfinancial firms.

Ahmed (2019) investigated the "effect of risk management committee (RMC) characteristics (risk management committee size and risk management committee independence) and board financial expertise on the financial performance of quoted banks in Nigeria". The study utilized secondary data which was gleaned from the annual report of banks listed in the Nigerian exchange group for the period of 2013-2016 with 56 firm-year observations and was based on panel data approach. And the regression estimates were anchored on random effect and fixed effect models. Findings revealed that RMC size and RMC independence are insignificantly related with financial performance of ROA, ROE and Tobin's Q, suggesting an increase or decrease in RMC size has no effect on financial performance. While board financial expertise was found to be negatively related with ROA and ROE, suggesting that the more the financial expert in an organization the lesser the financial performance due to the risk that will be avoided. However, the present study tends to focus on the effect of RMC on FRQ of listed non-financial firms.

Ishak et al. (2017) investigated the relationship between the board of directors (BOD) and the establishment of RMC for the non-banking and non-financial companies listed on Bursa Malaysia. The study obtained data from the annual reports of companies for the year 2014 to 2015. Some characteristics of BOD and the establishment of RMC are tested in their study including some control variables. The study employed the descriptive and multivariate analyses to answer the research question. Their findings show that the BOD size is positively related to the establishment of RMC. Also, the BOD outside directorship was found to be negatively related to the establishment of RMC. Further, companies that are audited by the big 4 audit firms are found to be positively associated with the formation of RMC. The result also indicates that the company audited by big 4 audit firms are preferred to have risk management committee either as combined or separate. However, their studies vary from the present study in that their study was conducted in Asian country which has some degree of variance in the way their code of corporate governance is governed.

Bhuiyan et al. (2016) examined the association between the existence of a risk committee (RM) in a firm and financial reporting quality. They also examined whether having a risk committee moderates the effect of financial reporting quality on audit pricing. They used two different measures of risk committee existence to examine the impact on FRQ and audit pricing. Multivariate regression analysis is applied to data from Australian Stock Exchange listed companies during the years 2001 – 2013. The results show that the existence of a RM reduces discretionary accruals; this means financial reporting quality improves when risk committees are in operation. The results also indicate that risk committee existence plays a moderating role to reduce audit fees when firms have higher discretionary accruals.

Agency Theory

There are many governance theories that have been used to explain corporate governance studies. However, this study employs the agency theory with the aim of explaining its suitability to the present study. In particular, this theory is considered due to its prominence in the recent times literatures and its suitability to support and explain better the relationship between the board, audit committee characteristics and financial reporting quality as well as risk management committee. The theory explains the principal-agent relationship and their behaviors. It also explains how BODs can act on behalf of the principal such that they can control and monitor the activities of the agents. Consequently, the agency theory is utilized in this study because it focusses more on providing advice, counselling and monitoring functions that helps in resolving principal-agent relationship problem as dominated by agency cost (Hillman & Dalziel, 2003; Eisenhardt, 1989), and corporate governance mechanisms can be used in this regard to reduce agency cost (Shleifer & Vishny, 1986; Fama & Jensen, 1983; Fama, 1980).

Research Methodology

Research Design

The ex post facto research design was adopted in this study to examine the possible causes and effects of the variables of interest. The design establishes these relationships by first identifying some existing phenomena and then analyzing data to establish possible causal factors. As the study is quantitative in nature, it aligns with the positivist philosophy. Also, the choice of ex-post facto research design is based on the objective to be achieved in the study. In line with the objectives and hypotheses formulated the study used panel multiple regressions to determine the impact of independent variables on the dependent variable, since it is the most suitable techniques for determining the extent of impact of independent variables on dependent variable. STATA Statistical Package were used since it allows establishing the impact of the independent variables on the dependent variable as well as testing for robustness such as heteroscedasticity test, fixed and random effect test, Multicollinearity test.

Population, Sample and Sampling Technique

The population of the study consisted of 116 non-financial companies quoted on the Nigerian Stock Exchange (now Nigerian Exchange Group) as at 31st December, 2022, in the Agriculture, Conglomerate, Consumer Goods, Industrial Goods, Healthcare, Technology, Real Estate and Construction, Oil and Gas, Services and Natural Resources sectors.

The study employed stratified and simple random sampling techniques in selecting the sample of the study. The stratified sampling method was used because of the distinct nature of the study population. While simple random sampling gave each unit of the population an equal opportunity of inclusion in the sample.

This initial sample size is supported by Yamane (1967) sample selection method (Guilford & Frucher, 1973) as stated below:

According to Yamane (1967), $n = N / [1 + (Ne^2)]$,

Where: "n" is the sample size,

"N" is the population,

"e" is the error limit (5% precision level was used for the purpose of this study)

Therefore, $n = 116 / [1 + 116 (0.05^2)]$

$n = 116 / 1.29$

$n = 90$

Adjusted Yamane (1967), $n1 = n / 1 + (n-1)/N$

Therefore, $n1 = 90 / 1 + (90-1)/116$

$n1 = 90 / 1.77$

$n1 = 49$

Based on the above calculation. The sample size of 49 with error limit of 5% is considered appropriate for this study. The proposed samples from each sector of the study were determined through the use of proportional sampling technique as thus:

Table 1 Population and Sample Size of the Study

S/N	Sector	Population	Computation	Sample
1	Agriculture	5	$5/116*49$	2
2	Conglomerate	6	$6/116*49$	3
3	Consumer goods	23	$23/116*49$	10
4	Industrial goods	13	$13/116*49$	5
5	Healthcare	10	$10/116*49$	4
6	Technology	9	$9/116*49$	4
7	Real Estate and Construction	9	$9/116*49$	4
8	Oil and Gas	12	$12/116*49$	5
9	Services	25	$25/116*49$	10
10	Natural resources	4	$4/116*49$	2
Total		116		49

Source: Researcher's computation, 2023

Method of Data Collection

Data collected for this study were solely from secondary sources. Data were extracted from the Published Audited Accounts and Financial Statements and the Annual Reports of the listed non-financial firms in Nigeria from 2013-2022. The data were quantitative and panel in nature. Therefore, the panel dataset comprised of 490 firm years' observations which were subjected to different tests for analysis.

Technique of Data Analysis and Model Specification

This study used descriptive statistics to summarize the data, and to describe and understand the basic features of the data in the study. Also, correlation analysis was conducted to explain the relationship between the independent and the dependent variables and also the association among the all pairs

of independent variables themselves. Again, multiple regression analysis technique was adopted for the purpose of analysis because it is used to test the changes in the combination of two or more predictors. Basically, it is used to predict the level of change in the outcomes of variables. Furthermore, in estimating multiple regression models, researchers are usually challenged by the following: Fixed Effects estimation and Random Effects estimation. The Hausman (1978) test helps to determine the choice between the fixed or random effect models in conducting the regression by calculating the value of Probability chi-square.

The summary of Hausman test is presented in Table 2

Table 2: Hausman Specification Test

Variable	Chi ²	Prob>Chi ²
Board Attributes	27.31	0.0012

Source: STATA, 2023

From table 2 the result of the Hausman Test reveals chi2 value of 27.31 for board attributes with a corresponding probability of 0.0012. The significant values presented by the model suggest that the fixed effect is more appropriate for interpretation.

Model Specification

This study applied the multiple regression analysis technique and the Fixed-Effect and Random-Effect models to test the various hypotheses. The preference for multiple regression analysis is that it allows researchers to assess the strength of the relationship between the outcome (the dependent variable) and several predictor variables as well as the importance of each predictor variable to the relationship, often with the effect of other predictors statistically eliminated (Wooldridge, 2002). The Fixed-Effect and Random-Effect models allow the researchers to examine variations among cross-sectional units simultaneously with variations within individual units over time (Gaur & Gaur, 2006). It assumes that regression parameters do not change over time and do not differ between various cross-sectional units, enhancing the reliability of the coefficient estimates.

Hence, the model is specified thus;

$$FRQ_{it} = \beta_0 + \beta_1 BGD_{it} + \beta_2 BFE_{it} + \beta_3 BS_{it} + \beta_4 BIND_{it} + \beta_5 RMC_{it} + \beta_6 BGD_{it} * RMC_{it} + \beta_7 BFE_{it} * RMC_{it} + \beta_8 BS_{it} * RMC_{it} + \beta_9 BIND_{it} * RMC_{it} + e_{it} \dots \dots \dots (i)$$

Where: FRQ = Financial Reporting Quality; BGD = Board Gender Diversity;
BFE = Board Financial Expertise; BS = Board Size; BIND = Board Independence;
 β_0 = Parameters estimated; e = an error term assumed to satisfy the standard OLS assumption.
 $\beta_1 - \beta_9$ = Partial derivatives or the gradient of the independent variable.

Table 3: Measurements of Variables

Variables	Definition	Measurements	Source	Theory
FRQ	Financial Reporting Quality	Proxies grounded on properties of reported earnings, comprising of accruals quality (earnings management), earnings smoothing, earnings persistence and the value relevance	(Leuz et al., 2003; Francis et al., 2005)	Agency theory
BGD	Board Gender Diversity	Proportion of female directors to total board members	(Ittonen et al., 2015; Thiruvadi, 2012)	Resource Dependency Theory
BFE	Board Financial Expertise	Percentage of financial experts on the board	(Güner et al., 2008; Jeanjean & Stolowy, 2009)	Agency theory
BS	Board Size	Total number of directors on the board	(Schnake & Williams, 2008; Guest, 2009)	Agency theory/Resource Dependency theory
BIND	Board Independence	Total number of independent directors on the board	(Rubin & Segal, 2019; Fodio et al., 2013)	Agency theory
RMC	Risk Management Committee	The number of directors serving on the RMC	(Ng et al., 2012; Tao & Hutchinson, 2013)	Agency theory

Source: Developed by the researcher (2023).

Descriptive Statistics

The table below shows the description of the properties of the variables ranging from the mean of each variable, minimum, maximum and standard deviation. Table 4 presents the details of the result.

Table 4: Descriptive Statistics

Variable	Obs	Mean	. dev.	Min	Max
frq	490	.1870754	.122498	-.812479	.504019
bgd	490	.0604807	.0706333	.00016	.571429
bfe	490	.1243055	.0885299	.012987	.62179
bs	490	10.85306	2.15713	6	19
bind	490	.1929878	.0878277	.012987	.7058824
rmc	490	3.879592	.7290298	2	6
bdgrmc	490	.2351293	.2855663	.00064	2.5
bfermc	490	.4868714	.3682576	.038961	2.48716
bsrmc	490	42.24286	12.13625	16	90
bindrmc	490	.751641	.3738854	.038961	2.823529

Source: STATA 16 output, 2023

The descriptive statistics show a summary of data for all selected variables for the 49 listed non-financial companies in Nigeria within the time frame of 10 years. The result from table 4 shows that the average FRQ which is a measure of the extent of discretionary accruals is .1870 with a standard deviation of .1224. This figure indicates a low ratio of discretionary accruals. From the values of the minimum and maximum which stands at -.8124 and 5040 respectively is an indication of a low level of variability in the data.

Regarding the independent variables, BGD has a mean value of .0604 with standard deviation of .0706. This implies that BGD does deviates significantly across the sample firms. The minimum values of .0000 and maximum of .5714 also show significant variability in the data. The standard deviation is higher than the average mean value, which indicates that there is great difference in the number of female directors across companies in the non-financial sector.

In addition, BFE has an average mean value of .1243 and standard deviation of 0.0885. This indicates that on average 12% of the companies have directors with financial expertise and this result agrees with the value of the standard deviation which is close to mean. However, the minimum and maximum values stand at .0129 and .6217 signifying a high level of dispersion in board financial expertise of companies in the area covered by the study.

Furthermore, BS reveals an average of 10.8530 and a standard deviation of 2.1571 with a range of values from 6 to 19. The significant difference in the value of minimum and maximum is an indication of high level of differences in the number of board members in the non-financial sector. Nevertheless, the mean of BIND is .1929 signifying that an average 19% of the board of directors are independent directors. The least BIND reported is .0129 with maximum value of .7058. The maximum value is an affirmation that 70% of board members are external directors.

The study introduced a moderator variable and according to the descriptive statistics result in Table 4, show that on average companies have 3 risk management committee members with a standard deviation of .7290. The minimum and maximum ranges between 2 and 6 respectively.

The descriptive statistics also show that the moderation of board gender diversity and risk management committee produced a mean of .2351 signifying that on average at least 24% of quality of financial reporting is improved when companies have risk management committee. The value of standard deviation (.2855) which is 29% and higher than the mean is an indication of variance in the data. This is confirmed by the value of minimum and maximum which stands at range of 0 and 2.5.

Also, the interaction between board financial expertise and risk management committee has a mean of .4868 and a standard deviation of .3682. This infers that on average 49% of companies financial reporting quality will be improved. The value of minimum and maximum which is .0389 and 2.4871 respectively. Furthermore, the descriptive statistics show that the moderation of board size and risk management committee produce an average of 42.24 with a corresponding standard deviation of 12.13. The maximum value is 16 while the minimum is 90. Again, the descriptive statistics show that the interaction between board independence and risk management committee has a mean of .7516 with a corresponding standard deviation of .3738. The minimum and maximum which ranges from .0389 and 2.8235 respectively.

Regression Result

This study tested the effect of selected board on financial reporting quality of quoted non-financial companies in Nigeria with risk management committee moderating the entire variables. Given this instance, regression model was stated in methodology aimed at achieving the specific objectives of the study. The model examined the moderating effect of risk management committee on the relationship between board characteristics (board gender diversity, board independence, board size and board financial expertise) and financial reporting quality. The summary of the regression results for the models is presented below:

Table 5 Fixed Effect Regression Model

Fixed-effects (within) regression	Number of obs	=	490
Group variable: id	Number of groups	=	49
R-sq: within = 0.5616	Obs per group: min	=	10
between = 0.6572	avg	=	10.0
overall = 0.6023	max	=	10
	F (9,432)	=	298.86
corr(u_i, Xb) = 0.3884	Prob > F	=	0.0000

frq |	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
bgsd |	.634008	.2720286	6.01	0.000	1.099344	2.168672
bfe |	.645998	.20644	12.82	0.000	2.240246	3.051749
bs |	.0005207	.0019055	0.27	0.785	-.0032244	.0042659
bind |	.408421	.0803585	17.53	0.000	1.250479	1.566363
rmc |	.043198	.0032032	13.49	0.000	.0369022	.0494938
bdgrmc |	-.1082261	.0185667	-5.83	0.000	-.1447185	-.0717337
bfermc |	-.1456553	.0121943	-11.94	0.000	-.1696228	-.1216878
bsrmc |	.0000406	.0002263	0.18	0.858	-.0004043	.0004854
bindrmc |	-.0693822	.0051022	-13.60	0.000	-.0794104	-.059354
_cons |	.0254297	.0208096	1.22	0.222	-.0154709	.0663303

Source: STATA 16, 2023

The regression results revealed an overall R^2 0.6572. The R^2 is the multiple coefficients of determination that gives the proportion or percentage of the total variation in the dependent variable explained by

Correlation Matrix

Correlation Matrix

(obs=490)

Table 6

	F r q	B g d	B f e	B s	B i n d	R m c	B d g r m c	B f e r m c	B s r m c	B i n d r m c
F	1									
rq	.									
	0									
	0									
	0									
B	0	1								
g	.	.								
d	1	0								
	0	0								
	7	0								
	6	0								
B	0	0	1							
fe	.	.	.							
	0	0	0							
	9	0	0							
	7	0	0							
	7	1	0							
B	-	0	-	1						
s	0	.	0	.						
	.	1	.	0						
	2	2	2	0						
	9	6	3	0						
	1	8	0	0						
B	0	0	0	-	1					
in	.	.	.	0	.					
d	0	1	3	.	0					

	8	2	8	2	0					
	8	9	7	0	0					
	4	9	5	1	0					
R	-	0	0	0	0	1				
m	0	.	.	.	.	.
c	.	0	0	0	0	0				
	1	0	7	8	4	0				
	3	9	1	1	5	0				
	9	5	7	1	8	0				
B	0	0	0	0	0	0	1			
d	.	.	.	.	.	.	.
gr	0	9	0	1	1	1	0			
m	8	7	1	3	2	6	0			
c	6	7	3	9	4	1	0			
	6	3	7	1	9	2	0			
B	0	0	0	-	0	0	0	1		
fe	.	.	.	0	.	.	.	.
r	0	0	9	.	3	2	0	0		
m	6	0	7	2	7	7	4	0		
c	6	4	4	0	9	9	9	0		
	2	9	2	4	8	3	0	0		
B	-	0	-	0	-	0	0	-	1	
sr	0	.	0	.	0	.	.	0	.	
m	.	1	.	7	.	1	1	.	0	
c	2	0	2	5	1	2	1	1	0	
	8	4	0	2	5	3	5	6	0	
	8	3	6	5	2	7	7	9	0	
B	0	0	0	-	0	0	0	0	-	1
in	.	.	.	0	.	.	.	.	0	.
dr	0	1	3	.	9	3	1	4	.	0
m	4	1	8	1	3	8	6	5	1	0
c	4	5	7	7	0	0	7	1	1	0
	0	5	1	4	8	4	1	7	4	0

Source: STATA 16 output, 2023

From Table 4.2, it can be seen that all the correlation coefficients among the independent variables are below 0.80. The table reveals a positive correlation between financial reporting BGD, BFE, and BIND while BS has a negative relationship with financial reporting quality. From the moderated result, BGDRMC, BFERMC and BINDRMC have positive correlation with financial reporting quality while BSRMC has a negative relationship with financial reporting quality.

Test of Hypotheses

Board Gender Diversity and Financial Reporting Quality

The regression results as shown on the table 4.6 depicts that board gender diversity has a coefficient of 0.6340 and a p-value of 0.0000. This suggests that board gender diversity has a positive relationship with financial reporting quality of listed non-financial firms in Nigeria. A unit increase in board gender diversity of non-financial companies will lead to a corresponding increase in financial reporting quality by 63% while holding board financial expertise, board independence and board size constant. Given the p-value, which is less than 0.05, the study failed to align with the assertion that board gender diversity has no significant effect on financial reporting quality of listed non-financial firms in Nigeria.

Board Financial Expertise and Financial Reporting Quality

Furthermore, the study found that board financial expertise has a positive and significant effect on financial reporting quality of listed non-financial firms in Nigeria. This is evidenced by a coefficient of 0.6459 and a p-value of 0.0000 which is significant at 95% level of confidence. This result inferred that a unit increase in financial expertise of the board will result in 64% increase in financial reporting quality while holding board gender diversity, board independence and board size constant. This is significant given the p-value which is greater than 0.05 and as such the study rejects the hypothesis which states that board financial expertise has a positive and significant effect on financial reporting quality of listed non-financial firms in Nigeria.

Board Size and Financial Reporting Quality

Table 4.6 showed that board size has an insignificant and positive effect on financial reporting quality of listed non-financial firms in Nigeria, from the coefficient of 0.0000 and a p-value of 0.785 which is statistically insignificant at 5% level of confidence. This result suggests that 1-unit increase in the size of the board will have no increase on the quality of financial reporting while holding board gender diversity, board financial expertise and board independence constant. Hence, the study accepts the assertion that board size has no significant effect on financial reporting quality of listed non-financial firms in Nigeria.

Board Independence and Financial Reporting Quality

The study also, showed the effect of board independence on financial reporting quality of listed non-financial firms on the Nigerian Stock exchange. The regression result showed a positive significant effect on financial reporting quality as evidenced by a coefficient and p-value of 0.4084 and 0.000 respectively. This means a unit increase in board independence will increase financial reporting quality by 41% board gender diversity, board financial expertise and board size constant. Accordingly, this is significant as shown by the p-value and as such this study accepts the null hypothesis which states that board independence has no significant effect financial reporting quality of listed non-financial firms on the Nigerian Stock exchange.

Moderating Effect of Risk Management Committee on the Relationship between Board Characteristics and Financial Reporting Quality**Risk Management Committee, Board Gender Diversity and Financial Reporting Quality**

The study finds no evidence which suggests that risk management committee has a significant moderating effect on the relationship between board gender diversity and financial reporting quality of listed non-financial companies in Nigeria. This is evidenced by the coefficient of -0.1082 and the corresponding probability of 0.000 which is significant at 95% level of confidence. It therefore, means that there is a decrease in financial reporting quality when risk management interacts with board gender in the area covered by the study while holding other factors constant. Based on this, the study rejects the null hypothesis which states that, the moderating effect of risk management committee has no significant effect on the relationship between board gender diversity and financial reporting quality of listed non-financial companies in Nigeria.

Risk Management Committee, Board Financial Expertise and Financial Reporting Quality

The summary of the regression in table 4.7 again shows that risk management committee negatively and significantly moderates the relationship between board financial expertise and financial reporting quality of listed non-financial companies in Nigeria. This assertion is supported by the coefficient of -0.1456 and a p-value of 0.000 which is statistically significant given that the p-value is less than 0.05. The study, therefore, has evidence to reject the null hypothesis that risk management committee has no significant moderating effect on the relationship between board financial expertise and financial reporting quality of listed non-financial companies in Nigeria.

Risk Management Committee, Board Size and Financial Reporting Quality

Furthermore, the regression result for board size in table 4.7 shows a coefficient of -0.0000 and a p-value of 0.858. The import of this result is that risk management committee negatively and insignificantly moderates the relationship between board size and financial reporting quality of listed non-financial companies in Nigeria. Given that the p-value is greater than 0.05, the study accepts the null hypotheses which states that risk management committee does not have a significant moderating effect on the relationship between board size and financial reporting quality of listed non-financial companies in Nigeria.

Risk Management Committee, Board independence and Financial Reporting Quality

This study again hypothesized that risk management committee has no significant moderating effect on the relationship between board independence and financial reporting quality of listed non-financial companies in Nigeria. The result of the regression analysis provided evidence from the coefficient and p-value of -0.0693 and 0.000 respectively that risk management committee as a moderator has a negative but significant effect on the relationship between board independence and financial reporting quality. Supported by the statistical evidence, the study rejects the hypothesis which states that risk management committee has does not have any significant moderating effect on the relationship between board independence and financial reporting quality of listed non-financial companies in Nigeria.

Discussion of Findings**Board Characteristics and Financial Reporting Quality**

The objective of this study is to examine the moderating effect of risk management on the relationship between board characteristics (board gender diversity, board financial expertise, board size and board independence) and financial reporting quality of listed non-financial companies in Nigeria.

Board Gender Diversity and Financial Reporting Quality

The study examined the effect of board gender diversity on financial reporting quality of listed non-financial companies in Nigeria. The result of the regression analysis showed that board gender diversity has a positive and significant effect on financial reporting quality of listed non-financial companies in Nigeria. This means the quality of financial reports of non-financial companies in Nigeria when there are female directors on the board. There are growing stream of researches in the way and manner in which male and female board members bring their characteristics to reflect on their choices of leadership style and decision-making process on the board. A wide range of studies affirm that female directors are risk averse and usually support less risky policies and financial decisions compared to male directors and that female directors are stricter monitors. This finding is in tandem with Zalata et al. (2017) and Oyenike (2016).

Board Financial Expertise and Financial Reporting Quality

Again, the study found that board financial expertise has a positive and significant effect on financial reporting quality of listed non-financial companies in Nigeria. This means board financial expertise contributes positively in affecting the quality of financial reporting in the area covered by the study. Both internal and external directors should use their expertise and experience to improve financial reporting quality disclosure quality. This is important for the easy provision of access to finance the company. Resources dependency theory guides that performance of the company is not only dependent on the abilities of the management of the company to efficiently manage the resources but also on the capacity of the members to save these resources. The findings align with that of De Haan and Vlahu (2016) and contradicts that of Ajekwe and Ibiamke (2017).

Board Size and Financial Reporting Quality

The study showed that board size has an insignificant positive effect on financial reporting quality of

listed non-financial companies in Nigeria. Based on the result, it can be said board size is not a determinant of financial reporting quality. Jensen (1986) asserted that a high number of board members causes a lower operating efficiency and related problems, as members assume that the company will be audited by involved participants but there is no such act (free-riders). According to agency theory, the basic mechanisms to minimize agency cost are more disclosure and appropriate independent board. This finding contradicts that of Zona et al. (2013) who show that the board size does matter because it impacts monitoring, controlling and decision making in the company. This insignificant finding in this study aligns with that of Anaekenwa and Rafiu (2018).

Board Independence and Financial Reporting Quality

The regression result showed a positive and significant effect on financial reporting quality of listed non-financial companies in Nigeria. The result suggest that increased independent non-executive directors increase the on financial reporting quality of listed non-financial companies in Nigeria significantly. The assumption is that boards with a significant number of outside directors will be more independent and will make better decisions than boards dominated by insiders because of their fiduciary duty to its shareholders and their independence from management. Independent board of directors are willing to serve both the management and stakeholders of the company through proper monitoring and full disclosure of both financial and non-financial information. This finding is in tandem the previous studies of Akeju and Babatunde (2017); Kantudu and Samaila (2015) and Adebisi (2017).

Moderating Effect of Risk Management Committee on Board Characteristics and Financial Reporting Quality

The third objective of this study is to ascertain the moderating effect of risk management committee on the relationship between board characteristics and financial reporting quality of listed non-financial companies in Nigeria. The hypothesis stated that risk management committee has no significant moderating effect on the relationship board attributes and financial reporting quality of listed non-financial companies in Nigeria. The results of each of the individual variables are discussed below.

Moderating Effect of Risk Management Committee on Board Gender Diversity and Financial Reporting Quality

The study found evidence which suggested that risk management committee has a negative significant moderating effect on the relationship between board gender diversity and financial reporting quality of listed non-financial firms in Nigeria. This is to say the presence of a risk management committee of has a significant statistical moderating effect on the relationship between board gender diversity and financial reporting quality of listed non-financial firms in Nigeria. Given this result, it suffices to say that when companies have a risk management committee in place, the quality of financial reporting quality improves especially when the board is dominant with female members. The evidence is an indication that risk management committee and gender diverse boards are a veritable tool towards enhancing the quality of financial reporting.

Moderating Effect of Risk Management Committee on Board Financial Expertise and Financial Reporting Quality

The summary of the regression again showed that risk management committee has a significant moderating effect on the relationship between board financial expertise and financial reporting quality of listed non-financial companies in Nigeria. This implied that the composition of risk management committee by companies influences the strength of the between board financial expertise and financial reporting quality of listed non-financial companies in Nigeria. The focus of bringing financial experts on the board is to ensure reliable and high-quality financial reporting hence, the presence of risk committee further enhances the quality of financial reports. From this result it can be deduced that this is viable corporate governance strategy towards enhancing the quality of financial reports. Risk management committee especially for complex business industries, where the committee should comprise various levels of people, experiences and qualifications.

Moderating Effect of Risk Management Committee on Board Size and Financial Reporting Quality

This study found that risk management committee has an insignificant moderating effect on the relationship between board size and financial reporting quality of listed non-financial companies in Nigeria. The import of this result is that risk management committee as a moderator insignificantly moderates the relationship between board size and financial reporting quality. It means that the use of risk management committee cannot improve the predictive power between independent and dependent variable while holding other factors constant. This means that those investors and analysts are not able to better anticipate the quality of financial reporting and place reliance on it when there is a large board size irrespective of whether there is a risk management committee or not.

Moderating Effect of Risk Management Committee on Board Independence and Financial Reporting Quality

The result of the regression analysis provided evidence that risk management committee as a moderator has a significant effect on the relationship between board independence and financial reporting quality of listed non-financial companies in Nigeria. This finding suggests that companies with risk management committee that financial statement are properly scrutinized to ensure that financial reports reflect the true economic value and other underlying assumptions of the company. Essentially, the formation of a separate risk management committee will allow the committee members to focus only on the complexity of risk faced by the company and provide better quality of internal monitoring rather than having a committee combined with other committees.

Conclusion

From the findings of the study, the following conclusions are drawn:

That the inclusion of woman on the board significantly influences the likelihood of predicting the level of the quality of the financial reports especially when the organisation has a risk management committee.

The study further avers that board financial expertise does play any important role in improving the quality of financial reports when the companies have a constituted risk management committee.

The study found that the relationship between board size and financial reporting quality is not indirectly affected by risk management committee. Thus, the study found no statistical evidence to conclude that risk management committee as has significant moderating effect on the relationship between board size and financial reporting quality.

The study also found that board independence has significant effect on financial reporting quality of listed non-financial companies in Nigeria when moderated with risk management committee. Suggesting that independent directors are a necessary governance strategy used in creating balance on the board for proper representation of shareholder's interest in the area covered by the study. Finally, the study concludes that risk management committee is indeed a viable governance strategy aimed at improving the financial reporting quality through the scrutiny of the assessment and disclosure of risks inherent in the company.

Recommendations

From the conclusion of the study, the following recommendations are made:

- i. That the establishment of a risk management committee should be highly considered if not made a priority in a firm's monitoring process. The expectation is that risk management committee provides the necessary confidence to the stakeholders that financial reports are credible and reliable and that possible risk inherent in the organization are carefully reviewed and possess no threats to the going concern of the firm.
- ii. Non-financial companies should prioritize the inclusion of board members with financial knowledge on the board as their expertise in the reporting process helps in bringing suggestions that the financial reporting process. Not just that, the board is expected to have the ability to ask salient questions that

- pertains to the management actions as well as areas such as risk management, succession plans of CEO, corporate strategy and the questions that concerns meeting the target of financial and strategic objectives.
- iii. Non-financial companies should consider an average size board that is within an average of ten members but must ensure a hybrid of diversity in gender, expertise and independence. These attributes are at core of ensuring that management is carefully monitored and that right approach is applied in reporting economic activities of the company.
 - iv. There should be increased external board members to the board of directors as a more independent board has more chances of producing financial statements that are unbiased. Board member's composition is also likely to affect the accuracy and quality of financial reports.

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