BOARD CHARACTERISTICS AND AUDIT QUALITY OF LISTED FIRMS IN NIGERIA: THE MODERATING ROLE OF AUDIT COMMITTEE GENDER

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Abstract
This study is on board characteristics and Audit quality of listed firms in nigeria: the moderating role of audit committee gender. It is neccessitated by the need to curb financial losses and corporate failures through reliable, true and fair value financial information disclosures for stakeholders in the corporate world. A study sample of 74 firms selected from 148 listed Nigeria firms for the period January 2012 to December 2021 was used for the study and the independent variables; Board size, independence and board gender diversity are the proxies for board characteristics while the dependent variable; audit quality is proxied by the big 4 audit firms. Data sourced from the published accounts of these firms displayed on their websites and from the Nigerian Exchange Group was analysed using multiregression analysis aided by STATA statistical software to accommodate the multivariate variables. Findings of the study provide evidence that board characteristics affect audit quality particularly the inclusion of women on the board through gender diversity. The study then recommended that firms should consider the inclusion of women in their boards.

Keywords: Board characteristics, Board size, Bard independence, Gender diversity, Audit committee gender
JEL: M41, M47, M48

Introduction

Information disclosure system in the 21st century has become a concern for modern business due its place in decision making by stakeholders. This results from the fact that Auditors are financial professionals who are responsible for reviewing and evaluating corporate organization's records to ensure accuracy, honesty and compliance (Alzeaideen & Al-Rawash, 2018). Thus, they are critical gatekeepers of financial reporting quality, necessitating the need for the for high level quality report.

Audit report quality and factors affecting such reports, is a recurring discuss in academia, practices and regulatory circle following news of series of corporate collapses and near collapses across the world., ensuing enormous accounting scandals that was experienced in the early 2000s and is often viewed as responsible for generating considerable stress on the principles of accountancy (Mahdi, et al, 2019). In April 2023 Ernst & Young (EY) was fined and banned by Germany accounting watchdog for failure of Wirecard Company not minding the clean bill of financial health given by the auditors. Again KPMG was also fined by a

Dubai court same period over Abraaj fall out due to misleading report given by the auditors. Also, in 2018, poor audit quality has led to the sanction of KPMG, Deloitte & Touché and BDO by the United States' Exchange Commission (SEC) (The Sun, 2018).

In Nigeria, Cadburys Nigeria case, Oceanic banks and others have affected both the regulators and investors' trust of financial reports of firms. In November 2008, shareholders of Cadburys plc discovered that they have bought shares relying on cooked audited statement which was over stated by 13.25 billion naira through stock buyback and other forms of creative accounting leading to the indictment of Akintola Williams Deloitte who issued the clean bill certificate.

Also Financial Reporting Council of Nigeria fined NIMASA over a defective 2018 financial statement and Cadbury Nigeria also faced the wrath of the law for publishing a misleading financial statement by its directors. It is in this light that board characteristic is seen as being vital in firms operations and considered as measure of effectiveness and efficiency and prowess over all firms' operations. Awadallah, (2020), showed that CG has grown from initially addressing basic issues around governance; to, developing a conceptual agenda to appraise the functions and usefulness of those charged with governance of the entity; Ngyuen et al, (2022), posited also the place of institutional settings in national corporate ethics.

The Nigeria Corporate Governance Code (NCCG, 2018) harps on improved transparency. The code in Nigeria aims to protect the investors and their investments from unscrupulous managers/directors of listed firms in Nigeria. However, most government and private owned companies do not adhere to these ethics (Hajari, et al., 2020). The poor implementation of these codes can cause mistrust among investors, as they consider their investment to be at risk (Fachriza, Agus Widodo, & Mardijuwonoa, 2020).

There are several CG mechanisms identified by literature that influence audit quality such as board size, board independence, CEO power, ownership structure, board gender diversity and regulation/sanction (Kundu, et al., 2022; Ghardalloua, &AlZeer, 2021; Johnbest & Ologhodo, (2020).

Board independence is seen to influence audit quality especially when such board is composed of independent members, they are more likely to exercise their oversight responsibilities ensuring that auditors are conducting an independent and thorough examination of the company's financial statements. Soyemi (2020) asserted that independent board members are also more likely to challenge management's assertions to insist that audit process is conducted with integrity and objectivity. From research, companies with more independent boards tend to have higher audit quality ratings and audit quality is affected by the auditor's independence the more independent an auditor is, the better the audit quality.

While prior studies have focused on establishing a direct connection between corporate governance mechanism and audit quality (Garcia-Blandona, et al., 2023; Borgia, et al., 2021; Saidu & Aifuwa, 2020). They have failed to identify the critical mechanisms that could strengthen and enhance this relationship. Alawaqleh et al (2021) have recommended the inclusion of moderating variables to explore the link between CG and AQ. To address this gap in existing literature, we identified audit committee gender as crucial moderating components.

Audit Quality is most times proxied using the "Big Four largest global accounting firms by revenue and workforce and considered equal in providing wide scope of professional services to their clients hence researchers consider big4 as providing quality in conducting their professional duties.

It has been observed that irrespective of all the guidelines, monitoring, regulations and sanctions, shareholders are still exposed to audit reports that do not show true and fair value of firms' financial state and still suffer losses from making decisions based on such reports. Again existing literatures fall short in time periods and variables of measure and these factors constitute reasons this study focused majorly on the moderation of audit committee gender on board characteristics and Audit Quality of listed firms in Nigeria covering the period of ten (10) years from 2012-2021.

The major objective of this study is to examine the effect of board characteristics on audit quality of listed firms in Nigeria while specifically examining:

1. The effect of board size on audit quality of listed firms in Nigeria.
2. The effect of board independence affects audit quality of listed firms in Nigeria.
3. The effect of board gender diversity on audit quality of listed firms in Nigeria.

Establish the moderating role of audit committee gender on board characteristics and audit quality of listed firms in Nigeria and the following hypotheses aimed at meeting the study objective were set in null forms and tested:

Ho_1 Board size has no effect on audit quality of listed firms in Nigeria.

Ho_2 Board independence has no effect on audit quality of listed firms in Nigeria.

Ho_3 Board gender diversity has no effect on audit quality of listed firms in Nigeria.

Ho_4 Audit committee gender has no moderating role on board characteristics and audit quality of listed firms in Nigeria

Literature Review

Literatures from prior research on board characteristics and audit quality of firms are reviewed to help in shedding light on the topic of this quest especially as they relate to the variables (board size, independence and gender diversity). Board attributes are all measurement attributes of corporate effectiveness and efficiency of firms' board managerial prowess with the aim of protecting shareholders' investments (Levine, 2012).

Board Size

Board Size is the number of directors on the board of a firm (Edogbanya and kamardin, 2016) as their number influences the boards' functioning and performance and its Proponents believe that it provides increased pool of expertise with vast knowledge and skills at their disposal. Optimum board size of between 5 and 20 members have been recommended for quoted companies in Nigeria. From governance code 2018 provisions, a company should have at least two members in its board but did not specify the maximum number for a board but emphasizes the essence of having effective board due to its importance in achieving firm's goals. It should be adequate to represent the size and density of the firm's operations. Board size therefore is that number of members adequate to oversee firms operation for optimality.

Board Independence

Board independence refers to the board's capacity to carry out its functions without bias and undue influence. It is a critical internal governance tool in corporate business institutions occasioned by non-executive directors (NED) who hold special positions serve as checks and balances to the boards' operations. Their responsibilities transcend firm size as suggested by the revised corporate governance code of 2018 as board independence is crucial in ensuring audit quality. Board independence is the proportion of non-executive directors on the firms' board. The high level board independence enhances objectivity in decisions regarding the overall well being of their firms. The independent directors will always take actions that will enhance the achievement of the organizational objective, which will deter the board from self benefiting actions capable of eroding firm's goal congruence. So board independence is that board characteristic which aids the board members' objectivity in their decisions making.

Board Gender Diversity

This shows the ratio of male and female gender in the firms' board. It is another board characteristic viewed by researchers as weighing heavily on audit quality since past literatures show that women are indispensable in corporate world. Increased women executives on boards greatly motivate companies, shareholders and clients (Grosvold et al., 2007). Davis (2011), opine that women director decreases bankruptcy by up to 20% and more. Sial et al. (2018) posited that gender diversity results in improved of CG. Research on women on firm's board have received great deal of attention and legislation in some countries that made reservations for women in the board of listed firms (Adams & Ferreira, 2009; Akpan & Amran, 2014; Erhardt et al, 2003; Lückerath-Rovers, 2011). (Akpan Amran,2014). Board membership should be gender friendly and encouraged. One can then summarily say that gender diversity is the balance of male and female board members such that women are duly represented.

Audit Quality

Audit quality is a factor that attracts or repels investors in a firm. It determines level of confidence the public and stakeholders have on the firm. Use of audited financial statements by diverse interests has been seen by researchers as the driver for increased demand for quality audit by stakeholders. Alawagleh & Almasria, (2021) Zureigat, (2010) noting the varying market response to different audit reports and assurance as regards to the true and fair value of financial positions and findings of the audit job (Al-Ajmi, 2009).

Empirical Review

Empirical analysis of earlier studies abounds on research findings on board characteristics and audit quality some of which were analyzed and presented as focal point for corroboration.

Soyemi (2020) offers empirical support for the influence of internal corporate governance procedures on the choice of the external auditor by employing the big4 versus non-big4 dichotomous variable. Testing the provided model employing logistic regression, 27 quoted non-financial firms from the years 2011 to 2017 were employed, yielding 189 firms/year observations. Among the selected internal corporate governance traits, only board independence showed a favorable significant relationship with Big 4 auditors, and as a control variable, firm size produced similar results.

Shamil and Tok (2020) analysed BIST manufacturing sector in 2018 and the approach of using multiple regression to evaluate the data. Accordingly, board of directors' independence cannot account for the delay of the audit report. The study, however, ignored other audit quality indicators in favor of focusing solely on audit costs. Investigating those factors can result in a different conclusion.

Saidu and Aifuwa(2020) studied board size, independence, and female representation on audit quality in publicly traded manufacturing enterprises. A binary probit regression model was used for data estimation. The data, which covers 10-year period from 2009 to 2018, includes 53 listed manufacturing companies. Results indicate that board size is the only variable with significant favorable impact on audit quality. Percentage of women also had no influence on board attributes and audit quality and concluded that board features do not affect audit quality.

Suryanto et al, (2017) used percentage of non-executive directors and their financial expertise to examine board characteristics and audit quality. Data from 121 firms on Indonesia Stock Exchange over a five year period 2012 to 2016 were used and log_{it} regression employed in the analysis. From their research findings, they concluded that for these firms, audit committee and board characteristics have significant effect on audit quality.

Theoretical Review

Various theories have explained the dynamics of corporate ethics' financial reporting performance. These theories include, signaling theory (Spence, 1973) agency theory (Jensen & Meckling, 1976), resource dependency theory (Payerle & Pfeffer, 1978) and shareholders theory Hetherington, (2014), however, this study adopts agency theory propounded by Jensen and Meckling, (1976) hinged on distinguishing ownership (principal) from management (agent). This theory is considered perfect because board characteristic is a fundamental corporate governance component that determines the direction a firm goes; work for the owners' interest or management opportunistic behavior sets in leading to conflict of interest.

Methodology

Ex-post facto research design is used for the historical data of this research generated through past corporate activities. The independent variables are board size (BSIZE), board independence (BIND) and board gender diversity (BODGEND) while dependent variable is audit quality (big 4) with audit committee gender as moderator.

Study population is (148) listed firms on Nigerian Exchange group from January 2012 to December 2021; from where 74 companies that meet the study frame were selected with data sourced from the firms' financial statements obtainable from their websites. Multiple regression analysis aided by STATA statistical software was tool for analyzing the study data. Table 1 shows the detailed population by sectors.

Table 1: ***Population and sample frame***

	Sector	Population	Sample
1	Agriculture	5	3
2	Conglomerates	6	1
3	Construction and Estate	7	2
4	Consumer goods	21	12
5	Financial services	49	30
6	Health Care	7	3
7	ICT	9	1
8	Industrial goods	13	6
9	Natural resources	4	3
10	Oil and Gas	10	2
11	Services	16	11
	TOTAL	**148**	**74**

The Model equation is a mathematical connotation of the study variables written in the form:

AQ= f (BSIZE + BIND + BOGEND)………………………………..1

Econometrically, the equation is represented as:

AQit =αo + α1BSIZEit*AUCG + α2BINDit*AUCG + α3BOGENDit*AUCG + µit ………. 2

Where:

AFS= a predictor representing audit quality

BSIZE = a predictor representing board size (a proxy for independent variable)

BIND = a predictor representing board independence (a proxy for independent variable);

BOGEND = a predictor representing board gender diversity (a proxy for independent variable);

AUCG= predictor representing audit committee gender

µ= Error term (Residual).

Table 2: ***Variables, Definitions and Measurements***

Variables	Acronym	Definitions	Measurement	Source
Audit Quality	AQ	Reasonable assurance that a firms financial report is free from bias and any material misstatement	To be measured 1 for Big 4 and 0 for non-Big 4	Haniffa and Hudaib (2006)
Board Size	BSIZE	Number of members in the board	The total numbers of directors on the board	Edogbanya,& kamardin, (2016)
Board of Directors Independence	BDI	Board whose members do not have any form of vested interest in the company	Ratio of independent directors to total board size	Shakhatreh and Alsmadi(2021)
Board Gender Diversity	BOGEND	Equitable representation of people of all gender	Numbers of women on the board	(Al-Matar, Al-Swidi, & Fadzil, 2014;)
Audit committee gender	ACG	Equitable representation of all genders in the audit committee	Number of females in audit committee to total number of audit committee members	Olowookereet al.(2021)

Results and discussions

Table 3: ***Descriptive Statistics of the Variables***

Variables	Obs.	Mean	Std. D.	Min.	Max.
AQ	740	.7567568	.4293309	0	1
BSIZE	740	8.812162	2.278597	6	18
BIND	740	5.27973	1.836738	0	11
BOGEND	740	1.5932243	1.515176	0	6
AUDCG	740	0	.472922	0	1

Table 3 shows descriptive statistics of variables with the total observation of 740. The variables are the board structures and AQ. Board size shows mean of .7567568 with minimum of 6 and maximum of 18. Board independence posits mean of 5.27973, minimum and maximum shows 0 and 11 respectively. Again, board gender diversity shows the following; mean is 5.261, maximum is 6 while the minimum is 0. Big 4 which is the proxy for Audit Quality is with the mean of 0.01, minimum of 0 and maximum of 1.

Table 4: ***Multivariate Regression Analysis***

Variables	Coefficient	T-value	P-value
BSIZE	.0086118	0.74	0.457
BIND	.0043709	0.38	0.702
BOGEND	.3968873	2.39	0.017
AUCG	-.0312211	-12.78	0.000
CONSTANT	.9655106	13.97	0.000

R^2 within = 0.1902 Prob = 0.000 N = 740

Multiple Linear Regression and Test of Hypotheses

Table 4 presents results of multiple regressions analysis of board characteristics and audit quality with the corresponding coefficient, *t*-value and the probability value (P-value). The model was produced to capture the variables interlink.

Table 5: ***Moderating Effect of Audit Committee Gender on Board Characteristics and Audit Quality***

Variables	Coefficient	z-value	P-value
BSIZE	.0142501	0.87	0.386
BIND	-.0015295	-0.08	0.939
BOGEND	.0363326	-2.75	0.006
AUCG	-.0312211	-12.78	0.002
BSIZE*AUCG	-.008203	-0.44	0.690
BIND*AUCG	-.000427	0.46	0.648
BOGEND*AUCG	.0108281	2.32	0.020
CONSTANT	9317488	9.85	0.000

R^2 = 0.1954 Prob = 0.0000 N = 740

From the Hypotheses, if the Tabulated t-statistics: at 0.05 level of significance ranges from-2.021 to + 2.021.Where the t-calculated is less than the t-tabulated, the null hypothesis will be accepted. Where the t-calculated is more than the t-tabulated, the null hypotheses will be rejected. Ho_1 There is no significant effect of board size on audit quality of listed firms in Nigeria.

The result in table 5 showed an intertwine between board size and Audit Quality by the critical t-statistics value of 0.74 which is more than the tabulated t-statistics value of 2.021 at 0.05 significance level, which shows that there is significant contribution of board size to audit quality in Nigeria. Based on the results, the null hypothesis is accepted.

Ho_2 There is no significant effect between board independence and audit quality of listed firms in Nigeria.

Board independence and audit quality showed a critical t-statistics value of 0.38 which is less than the tabulated t-statistics value of 2.021 at 0.05 level of significance' representing a no significant contribution of board independence to audit quality in Nigeria. Based on the results, the null hypothesis is accepted and the alternate hypothesis rejected.

Ho_3 There is no significance effect between board gender diversity and audit quality of the firms Nigeria.

The results once again showed that board gender diversity and audit quality is indicated by a critical t-statistics value of 12.38 which is more than the tabulated t-statistics value of 2.021 at 0.05 level of significance; showing a significant contribution of board gender diversity and audit quality in Nigeria. Based on the results, the null hypothesis is rejected. On the other hand, audit committee gender is found to be significant at 1% Level of significance.

Same table 5 result shows the moderating effect of audit committee gender on the relationship between board structure and audit quality an indication that the presence of women on the board' strengthens the relationship between board structure and audit quality.

Discussion of Findings

Board size (BSIZE) is found not have significant effect on audit quality, this means that fewer board members are better for the firm as was evident from the test result in table 6. This finding is consistent with agency theory which is in support of small board size that can lead to reduction in proprietary cost (Jensen & Meckling, 1976). This findings is consistent with (Jensen, 1993) who posit that when the board becomes too large, it could cause free-riding issues among the directors which may lead to directors ineffectiveness in monitoring management activities and operations thereby leading to decrease in audit quality.

Similarly, board independence (BIND) is not significant as was indicated in table 5 with low critical t-statistics. This finding aligns with Bhagat and Bernard (2002) who posit negative significance of the outside director and firm value. This result suggests that the presence of non-executive director is for decorative reasons as the appointment of BIND into the board is for mere satisfaction of code of corporate governance.

Again, (BOGEND) is statistically significant and posts a positive effect on audit quality having a 12.38 t-value (table 5). This finding agrees with Campbell and Mínguez-Vera (2007) results which states that women involvement in the management of firm could lead to excellent audit quality. Similarly, audit committee gender also posted a positive significance at 1%. This is an indication that the presence of women on the board and audit committee can lead to improved audit quality as earlier noted by Jianakoplos Bernasek (1998) which posit that women are more sensitive in financial risk aversion than their male colleagues.

Conclusion and Recommendations

Based on the results of the data analysis, this research concludes that audit committee gender moderates board characteristics and audit quality of listed firms in Nigeria.

It is then recommended for public limited companies, policy makers and regulatory bodies that:

1. Stemming from the results, since board size does not affect audit quality even with moderation, firms should have a board size adequate for their operations.
2. In relation to board independence, the appointment of non-executive directors (NEDs) may be mere fulfilment of the code of best practices or for political reasons sine board independence does not affect audit quality with moderation.
3. Appointment of women on the board should be encouraged since with a gender diversified board, audit quality is improved especially with the moderating role of audit committee gender. The presence of women on the board can greatly enhance the overall performance of the firm due to their thoroughness and firmness.
4. The inclusion of women on the various committees in the firm should be encouraged Nigeria firms because the study showed that audit committee gender moderates board characteristics and audit quality.

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