FEMALE DIRECTORS' INFLUENCE ON FINANCIAL PERFORMANCE: DOES AUDIT COMMITTEE PLAY A ROLE?

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Abstract

Based on the Agency Theory, female managers and directors are agents representing shareholders who are their principals. The interest of the shareholders is to maximize their wealth. This is achievable by ensuring that the corporations deliver huge financial performance. Financial performance is possible when the board of directors is truly effective. A major point of consideration is to appoint more women into the boards of corporations. In addition, the role of the audit committee in mediating between female directors and firm financial performance cannot be over-emphasised. Audit committee is one of the avenues through which board of directors performs its functions, including the appointment of external auditors; ensuring that the audit is of quality and that the financial report is of great value to investors. It is in view of this proposal that this article interrogates the impact of female executives on financial performance bearing in mind the mediating role of the audit committee size. The research design used is the correlational method. Thirteen (13) banks were investigated for a period of 10 years (2011-2020). The dataset was obtained from Machameratio database and statistically analysed using descriptive statistics, correlation analysis and simple regression models. Findings show that the association between female directors and firm financial performance is moderately and positively significant. Also, the nexus between financial performance and audit committee size is not significant. In addition, the link between female directors and audit committee size is not significant. Finally, audit committee failed both mediatory and moderatory roles.

Keywords

audit committee, financial performance, profitability, return on equity, women directors

Introduction

A growing body of empirical literature has shown that having greater number of women in top positions of publicly quoted corporations produces influence that is good for corporations' bottom-line (see Chijioke-Mgbame et al., 2020; Dwalikat et al., 2021; Gao, 2020; Garba & Abubakar, 2014; Hamilton, 2021; Khan et al., 2021; Lee, 2016; Mohamed et al., 2019; Oba & Fodio, 2013; Owolabi et al., 2021; Onyekwere & Babangida, 2022; Rossi et al., 2017; Shukla et al., 2021; Triana & Asri, 2017; Tu, 2017). However, in some others empirical investigations, women directors are not good for corporation bottom-line (Adnan et al., 2013; Aladejebi, 2021; Mirza et al., 2012). Still,

others failed to find any significance at all (Ekadah & Mboya, 2011; Gallego-Álvarez et al., 2010; Marashdeh et al., 2021; Musa et al., 2020; Satria et al., 2020; Suherman et al., 2021; Siagbian, 2018; Zaid et al., 2020). These different studies create practical, empirical, methodological, sectoral, geographical gaps, etc., that require further interrogation. This is the motivation for this article.

Return on equity is frequently used to proxy profitability or financial performance (see Ahsan, 2012; Al-Qudah, 2016; Berzkalne & Zelgalve, 2014; Rosikah et al., 2018). Financial performance is essential for business to survive and also to achieve its goals. Some scholars called it the bottom-line. It is essential because it is the motivation for business-owners to strive to improve on their businesses. Several factors affect financial performance including the appointment of female directors in the corporate world. In this particular piece, the role of female directors in ensuring that the firm achieve its financial objective is the focus of the article. The word 'female directors' is used here loosely to refer to engagement of women on the board of directors, female chief executive officers and women in top management.

Women are characteristically known to be disciplined particularly when it comes to finances. Therefore, there is a connection between female representation and improvement in corporate financial performance. This is the justification or motivation on which this piece of work was based. In addition, several other interest groups will benefit from this study, such as male corporate leaders, shareholders, government, creditors, suppliers, etc. The article is beneficial in terms of policy and performance improvements and further research and expansion of body of knowledge. It is helpful to note that from the review of the aforementioned empirical studies, findings of this article are distinctively different from past studies. It has also contributed largely to the body of knowledge. The article offers policy and performance improvement and further research. The paper is organized into six (6) sections: introduction, literature review and hypotheses development, methodology, results and discussion, and conclusion and recommendations. The next section discusses literature and hypotheses.

2. Literature review and hypothesis development

Based on the fact that the article uses a mediating variable, the empirical literature is divided into three parts: Female director and financial performance, Audit committee and financial performance and Female director and audit committee. Gallego-Álvarez et al. (2010) interrogated the influence of gender diversity on corporate performance using firms in Spain for a dataset of 2004 through 2006 and concluded that gender does not affect financial performance. Also, Ekadah and Mboya (2011) examined commercial banks in Kenya from 1998 to 2009 and found no effect of board gender diversity on financial performance. Mirza et a. (2012) examined firms in Pakistan over 2004 and 2009 and concluded with women on boards are negatively linked with financial performance.

In addition, Adnan et al. (2013) examined 26 government-owned firms and 26 non-government owned firms in Malaysia and saw that female board members have negative significant power on ROE. Also, Oba and Fodio (2013) in Nigeria used cross sectional data to examine the nexus between female directors and financial performance. They concluded that there was positive relationship. Garba and Abubakar (2014) used Feasible Generalised Least Squares method of regression to examined 12 insurance corporations in Nigeria over a period of 2004 through 2009 to explore the link between female directors and firm financial performance. They concluded a positive relationship. Zubair (2015) used 7 banks in Nigeria over an era of 2004 through 2013 to explore the nexus between audit committee characteristics and financial performance. He concluded that there was no significant effect.

Aladamem et al. (2016) examined 624 firms in Australia using cross sectional data of 2011 to examine the relationship between female representation and audit committee in order to ensure audit quality. They found out that the relationship is positive and significant. Also, Kipkoech and Rono (2016) in Kenya scrutinized the impact of audit committee on financial performance over a period of 2006 through 2011. They concluded that there was positive and significant impact. Triana and Asri (2017) examined companies in Indonesia over a period of 2011 to 2015 and found positive significant link between female directors and financial performance. Also, Tu (2017) looked at the nexus between female directors and financial performance of 647 corporations in Vietnam over a period of 2010 through 2015 and concluded that there is positive significant effect. Rossi et al. (2017) used cross-sectional data of 2016 to equally examine the influence of female directors on financial performance. The finding was positive and significant.

Siagbian (2018) investigated the power of women on board and how it affect financial performance and concluded that it does not affect ROE significantly. Also, Alqatamin (2018) used 165 non-financial companies to illustrate the nexus between audit committee characteristics and financial performance over a period of 2014 through 2016 in Jordan. He found a positive significant effect. Mohamed et al. (2019) used 240 firms in Malaysia over a period of three years (2016-2018) to assess the link between board gender diversity and firm financial performance. They concluded that it has positive significant influence. Ashari and Krishmiaji (2019) examined the impact of audit committee size (ACS) on financial performance (FP) using 466 observations in Indonesia from 2016 to 2017. They concluded that ACS has positive and significant impact on FP.

Musa et al. (2020) examined the effect of board gender diversity in Nigerian banks and concluded that there is no significant effect on their financial performance. Also, Satria et al. (2020) examined the link between board gender diversity and financial performance using non-financial corporations in Indonesia from 2013 to 2017 and found no significant effect. Furthermore, Gao (2020) examined 17,075 Chinese firms over a period of 2010 to 2016 and established that women directors have positive significant effect on financial performance. Zaid et al. (2020) used 103 public firms in Jordan to assess the influence of female directors on firm financial performance and found out that

it has no significant effect. Chijioke-Mgbame et al. (2020) examined 77 firms in Nigeria to establish the power of women representation on financial performance. They found positive significant effect. Kristian and Siswanto (2020) examined the power of audit committee features on financial performance using 19 corporations in Indonesia over a period of 2015 through 2017 and concluded that it does not affect financial performance. Sarea (2020) used 106 corporations in Jordan over a period of 2008 through 2009 to explore the link between audit committee dimension and financial performance. He concluded that there was a positive significant effect.

Khan et al. (2021) observed the link between feminine directors and CEOs in Pakistan as an emerging economy using Agency Theory and concluded that it has positive impact. Also, Shukla et al. (2021) investigated 29 Indian banks over a period of 2009 to 2016 and concluded that women on boards influenced financial performance. Similarly, Suherman et al. (2021) examined 264 non-financial corporations in Indonesia over 2013 to 2017 and found that women directors do not have significant effect on financial performance. Furthermore, Dwalikat et al. (2021) used two stage least squares method to assess the effect of women on board of directors on financial performance of non-financial companies in Palestine during the period of 2008 to 2015. The result was found to be positively significant. In addition, Hamilton (2021) used 50 of the Standard and Poor 500 companies during the period of 2015 to 2019 to assess the impact of women on financial performance. He saw a positive significant impact. Marashdeh et al. (2021) used 77 companies in Jordan to assess the tie between female directors and firm financial performance. They failed to see any effect between the two variables.

In Nigeria, Aladejebi (2021) used 13 deposit money banks over a period of 2019 through 2019 to examine the effect of board gender diversity on firm financial performance. He concluded with a negative nexus between them. Also, Owolabi et al. (2021) investigated 10 manufacturing firms to see the consequence of female directors on financial performance and established that there was a positive bond between them. Onyekwere and Babangida (2022) examined 12 commercial banks in Nigeria over a period of 2015 through 2019 and found positive significant effect of female directors on firm financial performance. Al-Jalahma (2022) used 14 non-financial companies over a period of 2015 through 2019 to examine the relationship between audit committee size and financial performance. He found negative significant link between them.

Given a combined effect of the aforementioned papers, it is proposed in this paper that:

H_1: Female directors have significant power on financial performance of banks in Nigeria.

H_2: Female directors have significant effect on audit committee of banks in Nigeria.

H_3: Audit committee has significant impact on financial performance of banks in Nigeria.

H_4: Female directors and audit committee size have significant influence on financial performance of banks in Nigeria.

From these discussions, it is clear that the problem examined by this paper was not resolved by these empirical studies. Most of the studies failed to report the full results of their empirical investigations. For example, a full report from any of the empirical interrogations should indicate the direction of the coefficient (positive or negative) as well as the t-value or p-value (significant or insignificant). This study overcomes this weakness. In addition, it offers both policy and performance improvement strategies at the same time unlike previous studies.

3. Methodology

The design used in this article is the correlational research design. 13 banks were used over a period of 2011 through 2020. The model was adapted from the work of Ashari and Krishmiaji (2019) with the introduction of audit committee as a mediator. Thus, there is need to conduct a zero-order regression analysis on these three models:

$$FP_{i,t} = \beta_0 + \beta_1 FD_{i,t} + e_{i,t} \quad \ldots\ldots (1)$$
$$AC_{i,t} = \beta_0 + \beta_1 FD_{i,}t + e_{i,t} \quad \ldots\ldots (2)$$
$$FP_{i,t} = \beta_0 + \beta_1 AC_{i,t} + e_{i,t} \quad \ldots\ldots (3)$$

If any of these three simple-regression equations are insignificant, then scholars usually conclude that mediatory role is not possible or likely. However, if any of the three equations is significant, there will been a need to estimate equation four:

$$FP_{i,t} = \beta_0 + \beta_1 FD_{i,t} + \beta_2 AC_{i,t} + e_{i,t} \quad \ldots\ldots (4)$$

Whereas:

FP = Financial performance is profit after tax divided over total equity (%).

β_0 = beta coefficient representing constant, also known as alpha.

β_{1-2} =Beta coefficients representing the gradient or slope relating the independent (mediating) variable to the dependent variable.

FD = Female directors is female directors over total board size (%).

AC = Audit committee, measured as the total directors and non-directors in the audit committee.

i = firm script (i = 13 banks)

t = Time script (t = 10 years)

ε = Idiosyncratic error term

Note that if both variables are significant, it is partial-mediation, if only AC is significant, it is full-mediation. The dataset was obtained from Machameratio database and statistically analysed using descriptive statistics, correlation analysis and simple regression models.

4. Results

This section is devoted to the analysis of results showing descriptive statistics, correlation matrix and simple regression as suggested by Baron and Kenny (1986). The

results of the analysis are reported in Table 1 through Table 6. Table one is the marks of descriptive analysis:

Table 1

Descriptive Statistics

Variables	C bsv	Mean	Stdd. Dev.	Minx	Maxx
FP	130	10.892	9.426	-12.195	32.08
FD	130	16.808	10.667	0	60
AC	130	6.054	.454	4	9

Source: STATA 14 Output

The findings in Table 1 indicate that the number of observations is 130. It shows further that financial performance averages 10.892 percent and its standard deviation is 9.426 percent and it ranges from -12 percent to 32 percent. Also, female directors range from zero to sixty percent with an average and standard deviation of 16.808 and 10.667 percent, respectively. For audit committee, the overall variance of standard deviation is .454, while it averages 6.054 percent and the range is between 4 members and 6 members. The findings of correlation analysis are reported in Table 2 as follows:

Table 2

Pairwise correlations

Variables	(1)	(2)	(3)
(1) FP	1.000		
(2) FD	0.311	1.000	
(3) AC	0.145	0.078	1.000

Source: STATA 14 Output

The findings from Table 2 show the correlation between female directors and financial performance (.311) is moderate, between audit committee and financial performance is weak (.145) and between female directors and audit committee is very weak (.078). These types of results are indications that mediatory role of the audit committee would be impossible. Table 3 reports the findings of the first simple regression:

Table 3

Simple regression of equation 1

FP	Coef.	Std. Err.	t-value	p-value	[95% Conf	Interval]	ig

FD	.275	.074	3.70	0	.128	.422	**
Constant	6.271	1.476	4.25	0	3.35	9.191	**
Mean dependent var	10.892		SD dependent var		9.426		
R^2	0.097		Obsv		130		
F-test	13.720		Prob > F		0.000		
Akaike crit.	941.980		Bayesian crit.		947.715		

**** p<.01, ** p<.05, * p<.1*

Source: STATA 14 Output

As indicated in Table 3, the link between female directors and financial performance is significant. However, it is too premature to draw explanation or conclusion as to the mediatory role of audit committee since it has not been accounted for in this particular equation. The report of the association between female directors and audit committee is obtainable in Table 4:

Table 4

Equation 2 Results

AC	Coef.	Std. Er.	t-v	p-v	[95% Con	Interv]	ig
FD	.003	.004	0.88	.381	-.004	.011	
Constant	5.998	.075	80.37	0	5.851	6.146	**
Mean dependent var	6.054		SD dependent var		0.454		
R^2	0.006		Obsv		130		
F-test	0.773		Prob > F		0.381		
Akaike crit.	165.993		Bayesian crit.		171.728		

**** p<.01, ** p<.05, * p<.1*

Source: STATA 14 Output

As shown in Table 4, the link amid female directors and audit committee is not significant. Recall that under methodology, the meaning of mediation was interpreted to suggest that if any of the equations is not significant, scholars often interpret that to mean that mediation is impossible. By extension, and by these findings, there is simply no mediatory role for audit committee. Table 5 is a report of the findings of the nexus between audit committee and financial performance.

As specified by Table 5, the link concerning audit committee and financial performance is not significant. This finding is a further demonstration that there is no mediatory role for audit committee in this study. However, it must be noted the results are novel and thus contribute to body of knowledge. Several scholars failed to find any significant results (see (Ekadah & Mboya, 2011; Gallego-Álvarez et al., 2010; Marashdeh et al., 2021; Musa et al., 2020; Satria et al., 2020; Suherman et al., 2021; Siagbian, 2018; Zaid et al., 2020).

In view of the failure to find a mediatory role for audit committee, there is further need to test for moderating role. The model to be tested is:

$$FP_{i,t} = FD_{i,t} + FDAC_{i,t} + AC_{i,t} + \varepsilon_{i,t} \text{ .... } (5)$$

Whereas, FDAC is the interaction (sign of moderation) between female directors and audit committee. The results of this equation are reported in Table 6 as follows:

Table 6

Moderated Linear regression results

FP	Coef.	St.Er.	t-value	p-value	[95% Conf	Interval]	ig
FD	-.584	1.31	-0.45	.656	-3.177	2.008	
FDAC	.14	.215	0.65	.516	-.286	.566	
AC	.237	3.913	0.06	.952	-7.507	7.981	
Constant	4.975	23.69	0.21	.834	-41.907	51.857	
Mean dependent var		10.892		SD dependent var		9.426	
R^2		0.114		Obsv		130	
F-test		5.426		Prob > F		0.002	
Akaike crit.		943.423		Bayesian crit.		954.893	

**** p<.01, ** p<.05, * p<.1*

Source: STATA 14 Output

As indicated in Table 6, the tie concerning female directors and financial performance on the one hand, and when female directors as moderated by audit committee, the result is still not significant and the result concerning audit committee and financial performance is not significant. The deduction is that audit committee failed to provide evidence of any role in financial performance. This is true in practice since the corporate governance role of the audit committee recommend external auditors should be

appointed and supervise the work of the committee and does not include financial performance.

5. Conclusions and recommendations

From the verdicts of the reading, female directors are important or critical for corporations to boost financial performance. However, no empirical evidence to back the starring role of audit committee, particularly in terms of financial performance either as a direct relationship or through mediatory or moderatory role. It is therefore recommended that core shareholders of banks and similar corporations such as insurance companies, micro finance houses, registrars, mortgage houses, etc., should increase the number of women on their boards of directors. The major finding of this study is vital to regulators towards issuing policy guideline(s) to encourage or reward banks that have more women on their boards of directors.

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