EFFECT OF BOARD GENDER DIVERSITY ON BANKS' PROFITABILITY IN NIGERIA

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Abstract

Board diversity is a corporate governance issue which has of late caught the concentration of policymakers, managers, directors, business owners, and the academic world. This study examines the effect of board gender diversity on profitability in Nigeria. Using correlational research design, the study randomly selected ten money deposit banks in Nigeria. Data were obtained from audited annual reports of the selected banks. Return on equity was used as a proxy for profitability (dependent variable); meanwhile, two indicators of gender diversity including: the presence of female in the board of directors and the proportion of female in the board of directors were used. Four control variables of: bank size, board size, loan to total assets and age of bank were incorporated into the model, in line with previous studies. The results of the regression analysis revealed that the presence of female director on the board has a positive but insignificant relationship with banks' profitability. Similarly, the result shows that the proportion of female in the board of directors has a positive but insignificant relationship with profitability in Nigeria. Furthermore, positive relationship is observed between profitability and each of: bank size, board size, loan to total assets and bank age.

Key words: Board Composition, Gender Diversity, Profitability, Banking Sector, Nigeria.

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Background

Corporate governance has long been a popular issue among business organizations, governments, present and would-be investors and academicians; especially after the recent corporate scandals of the Enron, Halliburton, Oceanic bank Nigeria Plc, Intercontinental bank Nigeria Plc and Union bank Nigeria Plc to mention a few. It has now been recognized that corporate governance is a very imperative issue for organizations, investors, and even governments and has stimulated interest and knowledge worldwide (Akinyomi, 2012).

It has been observed that greater part of investors are ready to pay a premium for business organizations with higher corporate governance standards; as a result, the corporate governance rankings of business organizations are also one of the considerations of investors when evaluating stock prices (Berthelot, Morris & Morrill, 2010). In the perspective of Corporate Governance, board of directors is the shareholder's first line of protection. Board members are the persons that shareholders depend on to make sure that their investment is secured and well managed (Carter, Simkins, D'Souza and Simpson, 2008). This makes the board of directors one of the most significant internal Corporate Governance mechanisms. The composition of corporate boards is of fundamental significance within corporate governance as it pertains to identifying structures that support the welfare of management and stakeholders (Rose, 2007). According to Hermalin and Weisbach (2003), the organization's board is by far the most essential internal control mechanism on the lookout for the control of management and in deterring it from opportunistic behaviour. The debate of board composition has focused comprehensively on various board characteristics and how to guarantee the independence of corporate boards; nevertheless, in recent years, the issue of governance diversity has gained remarkable interest in governance literature.

Board diversity is a corporate governance issue which has of late caught the concentration of policymakers, managers, directors, business owners, and the academic world (Johansen, 2008). Subsequent to this concern, a range of studies have been conducted to ascertain the effect of board diversity on corporate financial performance. These studies nevertheless, centre on the advanced market economies of Europe and America. Only limited studies have been carried out in the emerging economies, Nigeria being included. Besides, it is obvious from the studies from

these advanced market economies that most of the studies concentrated on the non-financial sector with a small amount of them actually dealing with the financial sector. In some cases, the financial sector organizations have been removed from the sample of firms under study in major advanced market economies (Minguez-Vera & Campbell, 2008). Above and beyond these, the findings from the non-financial sector studies have been controversial and inconclusive due to variations in legal, cultural and timing differences (Oba & Fodio, 2013). Thus the findings of these non-financial sector studies cannot be reasonably generalized to the financial sector and do not adequately inform us of the relationship between board diversity and financial performance in other sectors.

The main objective of this study is to ascertain the nature of relationship that exists between board gender diversity and financial performance of Nigerian banking sector. Other sub-objectives include to:

- Ascertain the relationship between the presence of female in the board of directors and firms' profitability.
- Establish the relationship between the proportion of female in the board of directors and firms' profitability.

Extant Literature

According to Carter, Simkins, D'Souza and Simpson (2002) board diversity can be defined as the proportion of minority representation in the boardroom, that is, the percentage of women in the board of directors. Adler (2001) opined that females' management styles provide merits that are currently unexploited, and that their management styles bring positive changes to organizations. Graham and Thomson (2005) further observed that women in management positions, among other actions, encourage significant and inventive idea in their subordinates, provide vision, and set priorities their teams can work purposefully towards. These scholars agreed that women have a tendency to exhibit this management style, referred to as a transformational management style, more frequently than their men counterparts.

Similarly, a meta-analysis carried by Eagly (2007) of forty-five different management styles showed that the female folks are more likely to be transformational managers than their male counterparts. The study revealed that women achieve better at vital management responsibilities that have the most impact on business performance. Furthermore, Johansen (2007) observed that women managers make use of strategies that have a positive influence on organizations' financial performance. It was observed that women managers are more interactive with subordinates and have a propensity to concentrate more on the course of action through which to attain positive results than their male counterparts do. In getting the best out of business processes, female managers seek to discover organizations' major performance drivers and work on enhancing their effectiveness. This type of company strategy that females are predisposed to implement, referred to as the defender strategy, is purportedly very successful in enhancing organizational financial performance (Johansen, 2007).

In the same way, Eagly (2007) recommended that women have excellent people skills, good collaborative and interactive qualities. They may deploy these skills to seek assistance from contemporaries and subordinates on probable new programmes or projects to embark on in order to sustain and boost current efficiencies, in that way positively influencing organizational performance.

Carter, Simkins and Simpson, (2003) provide clarification on the relationship between board gender diversity and firm performance based on the agency theory and they hypothesize that board gender diversity facilitates the board's capability to supervise top management. Additionally, they argue that increasing the number of female directors may boost board's independence since females tend to ask questions that male directors may not ask.

Furthermore, Smith, Smith and Verner (2006) hypothesize that board gender diversity facilitates problem solving as a range of viewpoints arise consequently more alternatives are analyzed in the process. Moreover, a more gender diverse board may also advance the organization's competitive advantage provided it enhances the image of the organization and if this has a positive outcome on customers' behaviour and consequently on the organization's financial performance (Smith et al., 2006).

Minguez-Vera and Campbell (2008) investigated gender diversity in the boardroom and firm financial performance in Spain context, a nation which in the past has had negligible female involvement in the labour force, but which has now introduced legislation to advance equality of opportunities. Panel data were used for the study; meanwhile the analysis was carried out using regression. The results of the study revealed that gender diversity, as measured by the percentage of women on the board and by the Blau and Shannon indices, has a positive effect on firm value and that the opposite causal relationship is not significant. The outcome of the study implied that greater gender diversity may generate economic gains in firms operating in Spain.

Marinova, Plantenga and Remery (2010) conducted a study on the effect of gender diversity on firm performance in Netherlands and Denmark. Data were obtained from one hundred and two Dutch companies and eighty-four Danish companies. The data were analyzed using two-stage least square regression analysis. Firm performance was measured with Tobin's Q, which is defined as the market value of equity plus book value of debt, all divided by book value of debt plus book value of equity. On the other hand they measured board gender diversity in two ways: (1) the percentage of women on the board (management board plus supervisory board); and (2) dummy variable indicating 1 if there is at least one woman on the board, or zero otherwise. The control variables used in the study include: board size, the share of independent directors, firm size, firm age and industry. The analysis revealed that about 40% of the selected firms have at least one woman in the boardroom. The study also reported that within the boards, the average share of women is 5.4%. However, the findings revealed that there is no significant relationship between board gender diversity and firm performance. This means that, within Dutch and Danish boardrooms, having a woman on board of directors does not result in a better firm performance.

Ekadah and Josphat (2011) carried out a study on board gender diversity and banks' performance in Kenya. Secondary data were obtained from the financial statements of forty-four commercial banks in Kenya from 1998 to 2009. The analysis was conducted using correlational and step-wise regression analysis. The results revealed that the proportion of female directors have negative relationship with bank performance just as was the case with presence of female directors on the board. Nevertheless, the proportion of female directors had a higher coefficient

value when compared with that of the presence of female directors. Their findings implied that board diversity is negatively, although not statistically significant, related to performance of banks in Kenya.

Johansen (2008) carried out a time-series study on gender diversity and firm performance in four hundred and one companies in Sweden. Data were obtained from financial statements of the sample companies between 2004 and 2007. The study did not only consider the fraction of females that are on the board of directors and in management as provided in other studies, but also investigated the company's efforts in providing a work atmosphere which facilitates the involvement in addition to the development of women. Using ROA, Tobin's Q, and CAR as proxies for financial performance; the results of the regression analysis revealed that a positive relationship exists between gender diversity and organizational financial performance using ROA as a proxy for financial performance. However, there was no statistically significant relationship between CAR as dependent variable and gender diversity in the board.

Oba and Fodio (2013) carried out a study on board gender diversity on financial performance in Nigeria. The study concentrated only on the non-financial sector firms that are quoted on the floor of the Nigeria stock exchange. A sample of thirty (30) randomly selected companies for the period of 2005 to 2007 was used for the study. Data for the study was obtained from annual reports of the sample firms. Return on capital employed was used as a proxy for financial performance while the presence of female director, Blau's index and the proportion of females in the board represented gender diversity. Data analysis was conducted using regression model in other to test the relationship between the board gender mix and firm performance. The results revealed that there was an average of nine directors on each sample firm's board while 44.4% of the sampled firms had a female director on the board of directors. It was also revealed that female director's presence had a positive and statistically significant impact on financial performance. Similarly, the study reported that a positive and statistically significant relationship exists between proportion of female in the board and financial performance.

Larkin, Bernardi and Bosco (2012) investigated the relationships that exist between board gender diversity, corporate reputation and corporate market performance in Fortune 500 companies. The

study reported that, as the number of females who are directors increased, the probability of an increase in market performance increases. In other words, a positive association was observed between gender diversity in boardroom and organizational performance. However, the results revealed that the relationship between gender diversity in board and performance is not statistically significant.

Methodology

The study employed correlational research design in investigating the relationship between gender diversity in board and financial performance of ten (10) randomly selected banks in Nigeria. Secondary data were obtained over a period of ten years (2003-2012) from published audited annual reports of the selected banks. Return on equity was used as a proxy for profitability (dependent variable); meanwhile, two indicators of gender diversity including: the presence of female in the board of directors and the proportion of female in the board of directors were used. Four control variables of: bank size, board size, loan to total assets and age of bank were used, in line with previous studies. ROE = f(Presence of Female Director, Proportion of Female Director, Bank-Size, Board-of-Directors'-Size, Loan-to-Assets ratio and Bank-Age).

$Y_i = b_0 + b_1FDP + b_2BASIZE + b_3BOSIZE + b_4LOTAR + b_5BAGE + \varepsilon$

$Y_{ii} = b_0 + b_1POFD + b_2BASIZE + b_3BOSIZE + b_4LOTAR + b_5BAGE + \varepsilon$

The following hypotheses have been formulated in line with the models developed:

Ho$_i$: There is no significant relationship between the presence of female in the board of directors and firms' profitability.

Ho$_{ii}$: There is no significant relationship between the proportion of female in the board of directors and firms' profitability.

Results

The results of the analysis conducted in this paper will be presented in the following section. Moreover, the two hypotheses formulated at the beginning of this study will also be tested for significance.

Table 1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ROE	100	.0180	.5540	.308692	.1082809

FDP	100	.0000	1.0000	.700000	.4605662
POFD	100	.0432	.3000	.134510	.0935011
BASIZE	100	.5198	8.7110	6.031713	1.1677854
BOSIZE	100	.2890	2.1980	1.201334	.3738640
LOTAR	100	.1243	5.7242	.845899	1.4744668
BAGE	100	.6021	1.7076	1.358915	.2411946
Valid N (listwise)	100				

Table 1 above presents the descriptive statistics for all the variables investigated in this study. The table revealed that 100 firm-years were considered in the study, it also presents the minimum, maximum, mean and standard deviation of each of the variables.

Table 2: Summary of Pearson Product Moment Correlations

	ROE	FDP	POFD	BASIZE	BOSIZE	LOTAR	BAGE
ROE	1						
FDP	.030	1					
POFD	.130	-.066	1				
BASIZE	.083	.299**	.012	1			
BOSIZE	.098	.154	.282**	.191	1		
LOTAR	.126	-.499**	-.217*	-.088	-.096	1	
BAGE	.261**	-.299**	.177	.055	.262**	.298**	1

*. Correlation is significant at the 0.05 level (2-tailed). **. Correlation is significant at the 0.01 level (2-tailed).

Table 2 above presents the results of the correlation carried out and it reveals that the presence of female director on the board has a positive relationship with profitability; similarly, the result shows that the proportion of female in the board of directors has a positive relationship with profitability in Nigeria. Furthermore, positive relationship is observed between profitability and each of: bank size, board size, loan to total assets and bank age. However, only age of bank has a significant relationship with profitability in Nigeria.

Table 3: Model Summary[b] with ROE as predictor and presence of female directors as independent variable

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.296[a]	.088	.039	.1061327	.088	1.810	5	94	.118	1.169

a. Predictors: (Constant), BAGE, BASIZE, POFD, BOSIZE, LOTAR. b. Dependent Variable: ROE

Moreover, Table 3 above reports the results of the regression analysis on the relationship between the presence of female in the board of directors and profitability of Nigerian banks. The table revealed R value of 0.296 indicating a weak but positive relationship between the presence of female in the board of directors and profitability of Nigerian banks. It also shows R^2 value of 0.088, which indicates that 8.8 percent of the variation in the profitability of Nigerian banks can be explained by the variability in the presence of female director in the board. This is not a commendable fit but is a reasonable one since bank performance certainly has other unrelated variables that explain its variation.

Table 4: ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.102	5	.020	1.810	.118[a]
	Residual	1.059	94	.011		
	Total	1.161	99			

a. Predictors: (Constant), BAGE, BASIZE, POFD, BOSIZE, LOTAR. b. Dependent Variable: ROE

In testing the first hypothesis it is expedient to represent the results of regression analysis in the form of an analysis of variance (ANOVA) as shown in table 4 above. It shows that the F-value of 1.810. The residual mean square is a measure of how poorly or how well the regression line fits the actual data points. A large residual mean indicates poor fit. If residual mean square is large, the value of F would be low and F ratio may become non-significant. If F ratio is statistically significant it implies that the null hypothesis would be rejected. Table 4 shows that the F-value is 1.810 with p value of 0.118. The Durbin Watson statistic stood at 1.169. It supports the assumption of absence of autocorrelation in the model since it falls within the threshold of '2'. While the F statistic shows the overall significance of the plane; its P value > 0.05 guarantees the statistical insignificance of the model. Thus, the null hypothesis is accepted, that "there is no significant relationship between the presence of female in the board of directors and firms' profitability in Nigeria".

Table 5: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.113	.081		1.403	.164
	POFD	.130	.124	.112	1.045	.299
	BASIZE	.007	.009	.077	.768	.445
	BOSIZE	.002	.031	.007	.066	.947
	LOTAR	.007	.008	.096	.884	.379
	BAGE	.093	.050	.207	1.868	.065

Table 5 above presents the coefficients of the first model. The constant value is equal to 0.113. This means that the least squares line touches the ordinate axis at a value of Y = 0.113. Equally, it is also the predicted value for Y when X = 0. Hence, for our data, this means that if the presence of female in the board is equal to 0, then the expected or predicted value for banks' profitability is 0.113. Table 5 also presents the coefficient for POFD, BASIZE, BOSIZE, LOTAR and BAGE as 0.130, 0.007, 0.002, 0.007, and 0.093 which represents the slope parameters.

Table 6: Model Summary[b] with ROE as predictor and proportion of female directors in the board as independent variable

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.308[a]	.095	.047	.1057241	.095	1.969	5	94	.090	1.170

a. Predictors: (Constant), FDP, BOSIZE, BASIZE, BAGE, LOTAR. b. Dependent Variable: ROE

Moreover, Table 6 above reports the results of the regression analysis on the relationship between the proportion of female directors in the board of directors and profitability of Nigerian banks. The table revealed R value of 0.308 indicating a weak but positive relationship between the presence of female in the board of directors and profitability of Nigerian banks. It also shows R^2 value of 0.047, which indicates that 4.7 percent of the variation in the profitability of Nigerian banks can be explained by the variability in the proportion of female director in the board. This is not a commendable fit but is a reasonable one since bank performance certainly has other unrelated variables that explain its variation.

Table 7: ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.110	5	.022	1.969	.090[a]
	Residual	1.051	94	.011		
	Total	1.161	99			

a. Predictors: (Constant), FDP, BOSIZE, BASIZE, BAGE, LOTAR. b. Dependent Variable: ROE

In testing the second hypothesis it is expedient to represent the results of regression analysis in the form of an analysis of variance (ANOVA) as shown in table 7 above. It shows that the F-value of 1.969. The residual mean square is a measure of how poorly or how well the regression line fits the actual data points. A large residual mean indicates poor fit. If residual mean square is large, the value of F would be low and F ratio may become non-significant. If F ratio is statistically significant it implies that the null hypothesis would be rejected. Table 7 shows that the F-value is 1.969 with p value of 0.090. The Durbin Watson statistic stood at 1.170. It supports the assumption of absence of autocorrelation in the model since it falls within the threshold of '2'. While the F statistic shows the overall significance of the plane; its P value > 0.05 guarantees the statistical insignificance of the model. Thus, the null hypothesis is accepted, that "there is no significant relationship between the proportion of female in the board of directors and firms' profitability in Nigeria".

Table 8: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	.091	.082		1.101	.273
BASIZE	.003	.010	.028	.271	.787
BOSIZE	.003	.031	.010	.096	.924
LOTAR	.010	.008	.133	1.149	.254
BAGE	.120	.050	.267	2.392	.019
FDP	.039	.029	.166	1.352	.180

Table 8 above presents the coefficients of the second model. The constant value is equal to

0.091. This means that the least squares line touches the ordinate axis at a value of Y = 0.091. Equally, it is also the predicted value for Y when X = 0. Hence, for our data, this means that if the proportion of female director in the board is equal to 0, then the expected or predicted value for banks' profitability is 0.091. Table 8 also presents the coefficient for FDP, BASIZE, BOSIZE, LOTAR and BAGE as 0.039, 0.003, 0.003, 0.010, and 0.039 which represents the slope parameters.

Discussions

The result of this study revealed that the presence of female director on the board has a positive relationship with banks' profitability. Similarly, the result shows that the proportion of female in the board of directors has a positive relationship with profitability in Nigeria. The findings align with the findings in other studies such as Johansen (2007), Eagly (2007), Smith et al. (2006), Minguez-Vera and Campbell (2008), Oba and Fodio (2013) who reported a positive relationship between board gender diversity and profitability. However, the finding of this study contradicts the results reported by Ekadah and Josphat (2011) as they reported a negative relationship between board gender diversity and profitability.

Conclusion and Recommendations

This study examined the effects of board diversity on profitability in Nigeria. The results of the regression analysis revealed that the presence of female director on the board has a positive but insignificant relationship with banks' profitability. Similarly, the result shows that the proportion of female in the board of directors has a positive but insignificant relationship with profitability in Nigeria. Furthermore, positive relationship is observed between profitability and each of: bank size, board size, loan to total assets and bank age.

The result of this study is one of the few studies conducted on board gender diversity and profitability in Nigeria. Therefore, there is need for further confirmation on the relationship between board gender diversity and profitability in the context of Nigeria. Particularly, future studies should seek to examine the effects of board gender diversity on other performance indicators in Nigeria.

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