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**Department of Marketing**  
**Faculty of Management Sciences**  
**University of Port-Harcourt**  
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# Corporate Board Diversity and Stock Price Performance: Evidence from Nigeria

Igbinosa S.O.<sup>1</sup> & Sunday Oseiweh Ogbeide<sup>2</sup>

<sup>1,2</sup> Department of Banking and Finance, Faculty of Management Sciences,  
University of Benin, Benin City, Nigeria,  
(<sup>1</sup> [osaretin.igbinosa@uniben.edu](mailto:osaretin.igbinosa@uniben.edu))

(<sup>2</sup> [ogbeide.sunday@yahoo.com](mailto:ogbeide.sunday@yahoo.com))

## Abstract

*The study examines corporate board diversity and market performance of Nigerian quoted firms. Specifically, it evaluates the influence of board gender, board-nationality, board independence, board ethnicity and board size on the stock prices of quoted firms in Nigeria. The research design is both descriptive and ex- post facto. The population consists of all firms quoted on the floor of Nigerian Stock Exchange (NSE) while the analysis is based on a cross-section of twenty (20) randomly selected companies in a seven-year (2006-2012) study period. Secondary data sourced from financial statements of the sampled firms and the daily official price lists of the NSE are used for the study. The method of analysis is the panel least squares multivariate regression analysis based on the fixed effect estimation. The analysis reveals that while board nationality (BN) has a positive and statistically significant impact on share price (SPRICE), all other variables – board gender (BG), board independence (BIN), board ethnicity (BE) and board size (BS) are negatively related to share price (SPRICE); with only the relationships between the latter and board independence (BIN) on the one hand, and board ethnicity (BE) on the other, being statistically significant. The study recommends to managers' of the nation's corporate organizations and relevant regulatory agencies to ensure that the composition of corporate boards should reflect national and ethnic diversity to promote firm's performance. In particular, the corporate organization should strive to have a mixed board of local and foreign directors to enhance quality board decisions while Nigerian quoted firm should avoid undue board dominance by any ethnic group.*

**Keywords:** Board Ethnicity, Board Gender, Board Independence, Board Nationality, Board Size.



## 1. Introduction

Corporate board is a part of an organizational structure set up to manage the affairs of a corporate organization for the purpose of shareholders' wealth maximization. The heightened focus on corporate board in recent times stems from its sensitivity and importance to the overall corporate organizational performance. The size and composition of a corporate board are critical structural elements that could affect the organization's performance. Performance in this regards, could be company specific or market based. Company specific performance reflects in historical profitability indicators while market based performance of a company reflects in market value, measured by increases in share price. Increases in stock price of a firm from both technical and fundamental empiricism correlate with profitable business performance. Rakesh (2002) opines that boards are attuned to the effect of their decisions on stock price; and in the appointment of CEOs, and are careful about the kind of signals they want to send to the stock market.

Board diversity (the right mix of size, nationality, gender, ethnicity, and independence in the composition of the Board of Directors of a corporate organization) and its contribution to organization performance in terms of shareholders return (stock price increase) have received sparse empirical investigation in developing countries such as Nigeria. Corporate board serves as a link between a company and the outside world from where the resources needed for operational performance are sourced. This view is traceable to resource dependency theory which states that corporate board members with varying cultural background, skills, gender and nationally serve as the bases for companies to enhance market value; and market value of a firm is enhanced if there is an increase in the stock price. This theoretical underpinning is very fundamental to the research on corporate board diversity in the light of persistence boardroom squabbles in companies. Frank and Jiwook (2010) suggest that there is a mechanism linking corporate board diversity to firm performance, noting that for certain performance outcomes such as stock price, what goes on at board meetings may be of less importance than what goes on in the equity market; and corporate board diversity affects corporate performance by influencing board capacities which in turn reflects on corporate profitability and ultimately on stock prices.

Austin, Chinwe and Ifeoma (2012) examined corporate board diversity and firm performance in Nigeria and note that the regression coefficient of board gender was negative and not significant in predicting financial performance. Similarly, they note that board ethnicity was positive but non-significant in predicting financial performance. In the same vein, Randoy, Thomsen and Oxelheim (2006) analyzed corporate board diversity and its impact on



companies market performance in Poland and found no significant diversity effect of gender, age and nationality on stock market performance or return on assets. In contrast however, Frank and Jiwook (2010) opined that an increase in gender on board is followed by a significant decrease in stock value. This obvious controversy on the impact of board diversity on firm performance deserves to be resolved and represents the major gap this study seeks to fill. Thus, this study seeks to answer the question: what is the impact of corporate board diversity on market value of quoted firms in Nigeria? The specific research questions to be answered are: what impact does board gender have on stock prices of quoted firms in Nigeria? What are the relationship and its significance between board nationality and stock prices of quoted firms? How does board independence affect stock prices of quoted firms in Nigeria? What impact does corporate board ethnicity have on stock prices in Nigeria? What is the impact of board size on stock prices of quoted firms in Nigeria? Therefore, the objectives of this study are broad and specific in nature. The broad objective is to determine the impact of corporate board diversity on the market value of quoted firms in Nigeria. The specific objectives are to: evaluate the impact of board gender on stock prices of quoted firms in Nigeria; examine if there is a significant relationship between board nationality and stock prices of quoted firms; ascertain how board independence affects stock prices of quoted firms; determine if board ethnicity has significant influence on stock prices of quoted firms and investigate the impact of board size on stock prices of quoted firms in Nigeria. Arising from the above, we proffer the following hypotheses: board gender has no significant impact on stock prices of quoted firms; there is no significant relationship between board nationality and stock prices of quoted firms; board independence does not significantly affect stock prices of quoted firms; board ethnicity has no significant influence on stock price of quoted firms; and board size has no significant impact on stock prices of quoted firms in Nigeria. Towards achieving the aforementioned objectives, this study employs a large cross sectional unit panel of twenty companies quoted on the Nigerian Stock Exchange and a relatively short period panel of seven years (2006-2012).

The remaining part of this paper is organized as follows. This introduction is immediately followed by a review of related literature in section two. The methodology is contained in section three while section four contains data analysis and discussion of findings. The final section, five, contains summary of findings, conclusion and recommendations.

## **2. Review Of Related Literature**

The presence of women on a board leads to gender diversity (Austin, Chinwe and Ifeoma, 2012). Female board members are more independent because they are not part of the old



boys' network (Carter, Simkins, & Simpson, 2003). Ryan and Haslam (2005) opined that women are more likely to be placed in positions of leadership in a circumstance of downturn. The consequence of this is that the presence of women on the board could be perceived by shareholders that significant change is on the way; thereby making them more confident about the company's future success which could result in increases in share price (Austin et al, 2012). Adams and Ferreira (2009) note that women pay greater attention to monitoring of firms and that their presence improves the attendance of men. They argue that gender diversity enhances performance; and greatest proportion of women board members significantly influences higher returns on equity; which in this case is the stock return (price). In addition, a greater percentage of quoted companies in Nigeria do not have female board members, and where they do, it is either one or at most three out of a large board size (this is clear from the reports of directors in the annual financial reports and account of quoted firms in Nigeria). This under-representation of women in the corporate board is nothing more than discrimination by the men board member counterparts for reasons which probably have no theoretical justification. Corporate board gender diversity could result in changes in the efficiency or monitoring capabilities of boards; these changes are expected to affect profits directly and stock performance indirectly (Frank and Jiwook, 2010). According to Frank and Jiwook (2010), early cross-sectional studies suggest board gender diversity had positive effects on both profit and stock performance; but using panel data, their results indicate corporate board gender diversity does not help the firm.

Board nationality, on the other hand, is the ratio of foreign board members to total board size. The potential advantages of foreign board membership have received serious attention in corporate governance studies globally (Griscombe & Mattis, 2002; Kose & Senbei, 1998; and Marimuthu & Kolandaisamy, 2009). First, with foreigners on the board, a large stock of qualified candidates would be available for the board with broader industry experience (Austin et al, 2012). This significantly impacts efficiency in the firms' management and could lead to increases in the firms' performance and stock price appreciation. Second, because of their different backgrounds, foreign members can add valuable and diverse expertise which domestic members may not possess (Lee and Farh, 2004). Foreign board members can also help assure foreign minority investors that the company is managed professionally in their best interests (Oxelheim and Randoy, 2001). On the other hand, opponents to this view argue that foreign board members may be less informed about domestic affairs and therefore, less effective (Austin et al, 2012). Also, changing the board language to fit foreign members may be costly and add to adjustments problems (Hassan, Samian & Silong, 2006).



In the same vein, board independence is commonly believed to be the single most important aspect of corporate governance globally. Independent directors are defined as those who hold no position in the management team and do not have direct business link with the firm (Shiguang, 2009). Bhagat and Black (2002) found no relationship between the ratio of outside versus inside board members and stock price. Klein (1998) suggests that the inclusion of outside directors on the board of directors will increase corporate performance but no relation has been found between overall board independence and share price increase. Chan and Li (2008) find evidence that the presence of independent and expert members on the board and committees increase firm value. This view is also supported by Rosenstein and Wyatt (1990), who assert that the inclusion of outsiders on the board is associated with an abnormal increase in stock price. Board independence as used or operationalized in this study connotes the ratio of outside directors to the total number of board members of the selected quoted firm.

There are contradictory findings on the value of corporate board diversity in extant literature. Watson, Kumar and Michealson (1993), report that a homogeneous board is better in the short-term, while a heterogeneous board is better in the long-term in achieving corporate goals. Pelled, Eisenhardt and Kin (1999) suggest that a heterogeneous board results in emotional conflict that ultimately harms firm's performance. It therefore follows that if a heterogeneous board results in emotional conflict and harms firm's performance; then the stock price may also not be excluded from the adverse effect since what happens in a firm has a signaling effect on the stock market. Nigeria has about 250 ethnic groups. Dominant in these 250 ethnic groups in Nigeria are the Igbo, Hausa and Yoruba. A board that is ethnically diffused in Nigeria may have a strong board capital. Board capital has been positively associated with the provision of advice and counsel, the provision of firm legitimacy and reputation, the provision of channels of communication, the acquisition of resource elements outside the firm, and a source of effective performance (Austin et al, 2012). A board that is dominated mainly by one ethnic group cannot be said to be ethnically diffused. Hence, this and the unresolved impact of corporate board diversity on firm's performance justify the need for this study.

Furthermore, there are numerous empirical researches showing the relationship between board size and firm performance (Jensen 1993). Some of the results show positive findings (Zahra & Pearce, 1989). Consulting limited (2009) cited in Evershed's report (2010) examines the effect of board size and stock price performance of 241 leading global companies between January 2007 and December 2009 choosing companies



headquartered in the UK, Continental Europe, the USA and the Asia-Pacific region. According to the report, company stock price movement between 2007 and 2009 was correlated with each of the data set on board size using the Pearson's product-moment coefficient. In contrast however, Jensen (1993) argues that large corporate boards are less effective in decision making. Hence, the justification for this study is the need to resolve this and other related controversies in the extant literature within the context of Nigeria.

### 3. Methodology

This study is both descriptive and *ex-post facto*. Saunders, Lewis and Thornhill (2003) state that studies which establish causal relationships between variables may be termed explanatory or descriptive. It is also an *ex-post facto* study because it uses historical data to evaluate the impact of some explanatory (independent) variables on a dependent variable without manipulation by the researchers. The population of study is made up of all firms quoted on the floor of the Nigerian Stock Exchange (NSE) within the study period and the sample is a stratified random sample of twenty firms selected from the industrial sub-sectors as at end of December 2012. Secondary data are collected from the annual reports and statements of accounts of selected companies and the daily official price lists of the Nigerian Stock Exchange. The variables of interest are corporate board gender, board nationality, board independence, board ethnicity and corporate board size. Employing the econometric package of EViews version 8.0, the panel data estimates of the multivariate regression model are obtained after a descriptive statistical analysis based on the correlation matrix. We use the Hausman diagnostic test to decide preference for the fixed effect estimator. The purpose of the additional test is to give reasonable assurance that the main findings were robust to the model specification as well as to reliably determine the impact of the independent variables on the dependent variable in the construct below.

#### Model Specification and Theoretical Framework

Austin, et al. (2012) in their study of corporate board diversity and firm performance in Nigeria used the following model below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + u_t \quad \dots\dots\dots(1)$$

Where, Y is a measure of firm performance. The dependent variable, firm performance was measured using return on asset (profit before interest and tax divided by total assets). The independent variables were: X<sub>1</sub> - board gender; X<sub>2</sub> - board nationality; X<sub>3</sub> - board ethnicity;



and  $X_4$  - some control variables. The control variables are: board skill, firm size and firm age. In this study, we adopt and adapt the above model as follows:

$$\text{SPRICE} = f(\text{BG}, \text{BN}, \text{BIN}, \text{BE}, \text{BS}) \dots\dots\dots(2)$$

Where,

SPRICE= Share price

BG = Board gender;

BN = Board nationality;

BIN = Board independence;

BE = Board ethnicity; and

BS = Board size (the control variable).

This is further stated in its econometric form as:

$$\text{SPRICE}_{it} = \beta_0 + \beta_1 \text{BG}_{it} + \beta_2 \text{BN}_{it} + \beta_3 \text{BIN}_{it} + \beta_4 \text{BE}_{it} + \beta_5 \text{BS}_{it} + V_{it} \dots\dots(3)$$

Where,

SPRICE - Share price, the dependent variable, is a measure of market performance of the firm;

$i = 1, \dots, 20$ , the number of firms, the cross-sectional dimension;

$t = 1, \dots, 7$ , the number of years, the temporal dimension,

BG, BN, BIN, BE and BS are as previously defined, and the independent variables of the study;

The coefficients,  $\beta_1 - \beta_5$  are the parameters to be estimated while  $\beta_0$  is the intercept of the regression line; and

$V_{it}$  is the stochastic error term.

The *a priori* expectations of the model are:  $\beta_1 - \beta_3 > 0$ ;  $\beta_4 - \beta_5 < 0$ .

### Operationalization of variables

We used share price to indicate the market performance of the quoted firm. It is a shift from the conventional way of measuring firm performance using profitability indicators such as return on assets, return on equity and other. The share price is the official selling price of a unit of a quoted company's share at the Nigerian Stock Exchange. The share price (SPRICE) used in this study is an average price; arrived at by adding the daily share prices of each company in the month of December of each year and dividing the sum by the total number of trading days in the month. Other independent variables are operationalized as follows: Board Size (BS) - represents the total number of persons on the board which



comprises of the executive directors, non-executive directors, the CEO and the chairman. Since a smaller board is faster at decision making than a large one, we expect a negative relationship between this variable and share price (-VE). Board Gender (BG) is the total number of female board members divided by board size multiplied by 100. The presence of women sends a positive signal to the market on the company's strategic direction and this could have positive impact on stock price. Hence, a positive relationship is expected between this variable and share price (+VE); Board Nationality (BN) – is the total number of foreign board members divided by board size. Foreign board members are expected to bring valuable and diverse expertise to the board and their presence could instill some level of confidence in investors (foreign and local) that the company is professionally managed. We also expect a positive relationship between this variable and share price (+VE); Board independence (BIN) – This is the proportion of non-executive members divided by total board size as a percentage. The implication is same as above. A positive relationship between this variable and share price is expected (+VE); Board Ethnicity (BE) - The number of board members from any one of the three major ethnic groups in Nigeria divided by the total board size multiplied by 100. The higher the percentage, the less heterogeneous the ethnicity level of the corporate board. A board that is ethnically diffused is likely to have a strong board capital which is positively associated with the provision of advice and counsel, firm legitimacy and reputation etc. A board that is dominated mainly by only one of these three major ethnic groups is not expected to be ethnically diffused. We expect a negative relationship between this variable and share price (-VE).

#### 4. Data Analysis and Discussion of Findings

In examining the impact of corporate board diversity on stock returns in Nigeria, the employs a short period panel of seven years (2006 – 2012) and a relatively large cross sectional panel of twenty firms quoted on the floor of the Nigerian Stock Exchange (see the appendix for the list of firms). The variables of interest that data were sourced for from the annual reports and statements of account of the quoted firms were: board gender (BG), board nationality (BN), board independence (BIN), board ethnicity (BE) and board size (BS). These constitute the independent variables of the study. Share price (SPRICE), sourced from the daily official lists of transactions at the Nigerian Stock Exchange, is the dependent variable of the study. The panel generalized least squares (PLS) methodology is adopted for data analysis to fully exploit the temporal and cross sectional unit dimensions of the data sets.



## Descriptive Statistical Analysis - Correlation Matrix

First, we extract the correlation matrix to check for the nature of correlation between the variables in order to determine the extent of within-unit clustering, using EView 8.0 econometric software. Results are on table 4.1 below.

**Table 4.1: Correlation matrix of variables**

	SPRICE	BG	BN	BIN	BE	BS
SPRICE	1.0000	-0.0961	0.1657	-0.0296	-0.1183	0.0864
BG	-0.0961	1.0000	-0.0407	-0.0432	-0.0023	0.0656
BN	0.1657	-0.0407	1.0000	-0.0171	-0.7448	-0.0734
BIN	-0.0296	-0.0432	-0.0171	1.0000	0.0711	0.0636
BE	-0.1183	-0.0023	-0.7448	0.0711	1.0000	0.1561
BS	0.0864	0.0656	-0.0734	0.0636	0.1561	1.0000

**SOURCE:** E-Views 8.0 Output

The above is a correlation matrix of the correlation coefficients between the variables of study. With the exception of the relationship between board nationality (BN) and board ethnicity (BE) (with a high correlation coefficient of 0.74), the correlations between all the other independent variables are very low. Therefore, the independent variables are not highly correlated and thus the presence of serial correlation is highly unlikely. The table also shows the directional relationships between share price and the independent variables. The results suggest a negative relationship between share price (SPRICE) and three of the variables: board gender (BG), board independence (BIN) and board ethnicity (BE) respectively, while a positive relationship is indicated between share price and board nationality (BN); and board size (BS) respectively.

## Panel Data Model Specification and Estimation

The Hausman test statistic is employed to test for the exogeneity of the unobserved error component of the regression model. The test is necessary because the random effect ought to be uncorrelated with the explanatory variables else there is endogeneity problem, and the random effect estimator becomes inconsistent. The null hypothesis for the Hausman test is:

$$H_0: \beta_{RE} = \beta_{FE}$$

Where,

$\beta_{RE}$  and  $\beta_{FE}$  are coefficient vectors of the time-varying explanatory variables excluding the time variables.



If the null hypothesis is rejected, we conclude that Random effect (RE) model is inconsistent, and the fixed effect (FE) model is preferable.

Table 4.2 below presents the Hausman test results for our model.

**Table 4.2: Correlated Random Effects – Hausman Test**

Test Summary	Chi-Square Statistic	Chi-Sq. d. f.	Prob.	
Cross section random	3.5585	5	0.6146	
<b>Cross section random effects test comparisons:</b>				
Variable	Fixed	Random	Var(Diff.)	Prob.
BG	-0.1361	-0.2171	0.0291	0.6355
BN	0.2296	0.1497	0.0115	0.4567
BIN	-0.0918	-0.0802	0.0010	0.7122
BE	-0.0964	-0.0647	0.0022	0.5009
BS	-0.9156	0.0105	0.5988	0.2314

**SOURCE:** Data computation by researchers, October, 2014.

From the table above, the Hausman test chi-square statistic is 3.56 with a probability value of 0.615 ( $P > 0.05$ ) indicating significant difference. Thus, we reject the null hypothesis and conclude that the fixed effect estimator is preferable.

### Fixed Effect Model Estimation

In estimating the impact of corporate diversity variables on stock price in Nigeria, we regressed the dependent variable, share price (SPRICE) on the independent variables - board gender (BG), board nationality (BN), board independence (BIN), board ethnicity (BE) and board size (BS) in a panel least square regression analysis using the cross section fixed effect (FE) estimator. The summarized results are contained on Table 4.3 below (full table is in the appendix):



**Table 4.3: Panel Least Squares Multivariate Regression Analysis**

Dependent Variable SPRICE	Variables	Coefficient	t-statistic	Probability
	C	22.8780	5.9623	0.0000
	BG	-0.0806	-0.7306	0.4665
	BN	0.2073	3.2971	0.0013*
	BIN	-0.0588	-2.7946	0.0061*
	BE	-0.0644	-2.3663	0.0197**
	BS	-0.4036	-1.5506	0.1238
R <sup>2</sup>	0.757			
Adj. R <sup>2</sup>	0.706			
F-statistic	14.8087			
Pro (F-statistic)	0.0000			
Durbin-Watson stat	1.92			

**Source:** Data computed by researchers based on EViews 8.0, October, 2014.

**KEY:**\* and \*\*indicate 1% and 5% level of statistical significance respectively.

**Data Analysis and Interpretation of Results**

Table 4.3 above shows that the R<sup>2</sup> statistic is 0.76 while the adjusted R<sup>2</sup> statistic is 0.71. This indicates that 71% of systematic variation in share price (SPRICE) is explained by changes in the explanatory variables of the model. Similarly, the F-statistic, 14.81, is greater than the theoretical value of 2.0 and has a probability value of 0.0000. These statistics strongly indicate that our model satisfies the overall goodness of fit statistical test. In the same vein, the Durbin-Watson statistic of 1.92 (approx. 2.0) indicates the absence of autocorrelation in the model. Also, the t-statistics and R<sup>2</sup> statistic are not extremely high as to suggest the existence of heteroskedasticity in the model. Therefore, our econometric model meets both statistical and diagnostic criteria and represents a good and consistent estimator and can be useful for policy direction. Thus, the panel least squares regression equation in a sample of seven years range, 2006-2012, for twenty cross sections of Nigerian quoted firms in a total panel (unbalanced) observations of 139 is given below:

$$SPRICE = 22.88 - 0.08 BG + 0.21 BN - 0.06 BIN - 0.06 BE - 0.40 BS + u;$$

$$( -0.73) \quad (3.30) \quad ( -2.79) \quad ( -2.37) \quad ( -1.55)$$

**Note:** Figure in parenthesis represents the variable's t-statistic (indicating the degree of significance)



The regression analysis reveals that board nationality (BN) is positively related to share price (SPRICE) in accordance with theoretical expectation. Board ethnicity (BE) and Board size (BS) are negatively related to share price also in conformity with *a priori* expectations. However, board gender (BG) and board independence (BIN) are negatively related to share price (SPRICE) contrary to theory. The positive relationship between board nationality (BN) and share price (SPRICE) suggests that the higher the number of foreign directors on the board of a Nigerian firm, the higher is its stock market performance. That is, a unit increase in the number of foreign directors on the board is expected, at least in theory, to increase share price by about 21%. This relationship between board nationality and stock performance is statistically significant at the 1% level (t-value and p-value are 3.30 and 0.001 respectively) thus suggesting that the ratio is high enough to enhance corporate board effective decision-making. In the same vein, board ethnicity (BE) representing the dominance of Nigerian corporate boards by directors from one of the three major tribes in Nigeria is negatively related to stock market performance and this relationship is statistically significant at 5% level (t-value and p-value are -2.37 and 0.0197 respectively). This suggests heavy board dominance by one of the three major Nigerian ethnic groups implying a weak board capital that is antithetical to corporate performance. The results confirm that a corporate board with a high ethnic dominance is less diverse and thus negatively affects corporate performance. Similarly, the larger the size of the board of directors (BS), the lower is the stock market performance of the firm. This agrees with theory and could be due to the fact that a large board size often connotes slow decision-making and is a major source of conflict due to unnecessary politicking that big-sized board often engenders. However, board size has a weak relationship with stock price (t-value is -1.55 and p-value is 0.124). Further analysis shows that board independence (BIN) is negatively but significantly related to stock market performance. This result is surprising because external directors from diverse backgrounds are expected to bring onto the board, fresh and innovative ideas that bear positively on board decisions. As a result, the higher their number on the board, the higher is the expected stock market performance of the firm. It would appear from the negative and statistically significant relationship (t-value is -2.79 and p-value is 0.006) between board independence and share price that external directors have strong negative influence on stock market performance. That is, board independence is more of a 'curse' than a 'blessing' to Nigerian corporate boards. The possible explanation is that either the ratio of external directors is not high enough to have any serious impact on board decisions or that such external directors have no adequate prior preparations that equip them to make significant impact on board decisions. The latter is related to the prior experience and skills of board members that are possible intervening variables between board independence and board performance.



In the same vein, board gender (BG) indicative of the number of females on the corporate board in relation to total board size is negatively related to share price. Again, as the female folks are expected to bring to bear their more sensitive and meticulous approach to issues to impact board decisions, we expected a positive relationship between board gender and stock market performance of the firm. This unexpected result suggests that female directors have negative influence on board performance. A possible explanation is that their number on the board may be so insignificant that they (the female directors) have little or no influence on board decisions or again, the prior experience and skills of female board members may have intervened negatively between board gender and board performance. This result may be subject to other interpretation.

Meanwhile, the fact that board nationality (BN), and board ethnicity (BE) are statistically significant with share price indicate that these corporate diversity variables are some of the most important corporate board structure variables that have strong effect on corporate firm's stock market performance in Nigeria. A firm with a board that is high in nationality (high ratio of foreign directors) performs significantly well in the Nigerian stock market in terms of market returns. Contrariwise, board ethnicity ratio indicating high board dominance by the three major ethnic groups in Nigeria is negatively related to a corporate firm's stock market performance. The same is true for board gender (BG) (the ratio of females to males on the board) that is negatively related stock market performance of the firm. The control variables – board independence (BIN) and board size (BS) have negative influence on the firm's stock market performance.

## **5. Summary of Findings, Conclusion and Recommendations**

The study investigates the impact of corporate board diversity on stock market performance in Nigeria. A sample of twenty (20) quoted firms randomly selected from various sub-sectors was used. Panel least squared regression analysis with fixed effect estimation was employed to analyze the data in a seven-year (2006-2012) study period. The findings reveal that:

1. Board nationality has a positive and statistically significant relationship with market performance in Nigeria. This finding suggests that foreign board members add positive and significant value to board decisions in Nigeria. This submission agrees with the work of Lee and Farh (2004).



2. Furthermore, board ethnicity has a negative and statistically significant relationship with stock price. This is an indication of high board dominance by at least one of the three major ethnic groups in Nigeria. The finding suggests that homogeneous or less heterogeneous board impacts negatively on corporate board performance in the long-run contrary to the finding of Pelled, Eisenhardt and Kin (1999) and Watson, Kumar and Michaelson (1993).
3. Also, board gender has a weak negative relationship with firm market performance suggesting that the number of female directors on the board of Nigerian firms may be so insignificant that they have little or no influence on board decisions. This finding contradicts Adams and Ferreira (2009) but agrees with Austin, Chinwe and Ifeoma (2012); and Frank and Jiwook (2010).
4. Similarly, the study shows that board size has a negative and non-statistically significant relationship with stock price. The result agrees with apriori expectation and with the works of Jensen (1993) but contrary to Zahra and Pearce (1989), and Consulting Limited (2009).
5. Other finding of the study is that board independence has a negative and statistically significant relationship with stock price contrary to theory but in agreement with the position of Bhagat and Black (2002).

## **Recommendations**

The managers' of the nation's corporate organizations and relevant regulatory agencies should ensure that the composition of the Boards of Directors of Nigerian quoted firms should strongly reflect national diversity with less emphasis on ethnicity. Specifically, the corporate organization should strive to have a mixed board of local and foreign directors that reflects its national diversity in order to enhance the quality of board decisions and ultimately promote the firm's market performance. Also, there is the need for Nigerian quoted firms to avoid high board dominance by any ethnic group in order to reduce the incidence of high board ethnicity that could impact negatively on board performance. Optimal board size and high level of board independence that conform to international best practice should be the norm in Nigerian industrial organizations. Furthermore, while we suggest an increase in the ratio of female directors on the board of Nigerian organizations, we recommend that further studies be conducted on corporate board diversity particularly on the negative relationship between board gender and firm performance.



## Appendix 1

### List of firms that form the sample of the study

1. Aluminum Extrusion Plc
2. Fidelity Bank Plc
3. Sterling Bank plc
4. FCMB plc
5. Avon Nigeria Plc
6. Dangote Cement Plc
7. Con oil plc
8. Japaul Oil & Maritin service plc
9. Equity Assurance Plc
10. Greit Nigeria Plc
11. Lasaco Assurance Plc
12. University Press Plc
13. Academy Press Plc
14. Longman Nigeria Plc
15. Vita foam Nig. Plc
16. PZ Cussons Nig. Plc
17. Neimeth Nig.plc
18. GlaxosmithKline
19. Beta Glass Plc
20. UACN Nig Plc



**Appendix 2**

**Table 1: Showing Output of Panel Least Square Regression Output and Hausman**

Dependent Variable: SPRICE  
 Method: Panel EGLS (Cross-section weights)  
 Date: 10/20/14 Time: 12:54  
 Sample: 2006 2012  
 Periods included: 7  
 Cross-sections included: 20  
 Total panel (unbalanced) observations: 139  
 Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	22.87798	3.837123	5.962274	0.0000
BG	-0.080601	0.110326	-0.730573	0.4665
BN	0.207314	0.062878	3.297090	0.0013
BIN	-0.058833	0.021053	-2.794555	0.0061
BE	-0.064374	0.027205	-2.366251	0.0197
BS	-0.403606	0.260294	-1.550581	0.1238

**Effects Specification**

Cross-section fixed (dummy variables)

**Weighted Statistics**

R-squared	0.757141	Mean dependent var	29.92367
Adjusted R-squared	0.706013	S.D. dependent var	20.89693
S.E. of regression	13.85997	Sum squared resid	21899.27
F-statistic	14.80868	Durbin-Watson stat	1.921580
Prob(F-statistic)	0.000000		

**Unweighted Statistics**

R-squared	0.456671	Mean dependent var	15.51626
Sum squared resid	23727.85	Durbin-Watson stat	2.046980



**Table 2: Output of Correlated Random Effects- Hausman Test**

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.558520	5	0.6146

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
BG	-0.136149	-0.217065	0.029148	0.6355
BN	0.229555	0.149655	0.011526	0.4567
BIN	-0.091841	-0.080191	0.000998	0.7122
BE	-0.096422	-0.064691	0.002223	0.5009
BS	-0.915552	0.010518	0.598843	0.2314

(Cross-section random effects test equation:

Dependent Variable: SPRICE

Method: Panel Least Squares

Date: 01/04/15 Time: 03:30

Sample: 2006 2012

Periods included: 7

Cross-sections included: 20

Total panel (unbalanced) observations: 139

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	31.65352	13.15309	2.406547	0.0177
BG	-0.136149	0.281726	-0.483266	0.6298
BN	0.229555	0.170503	1.346340	0.1809
BIN	-0.091841	0.077373	-1.186993	0.2377
BE	-0.096422	0.105971	-0.909887	0.3648
BS	-0.915552	1.137691	-0.804746	0.4226

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.460921	Mean dependent var	15.51626
Adjusted R-squared	0.347430	S.D. dependent var	17.78927
S.E. of regression	14.37049	Akaike info criterion	8.329668
Sum squared resid	23542.26	Schwarz criterion	8.857451
Log likelihood	-553.9119	Hannan-Quinn criter.	8.544145
F-statistic	4.061319	Durbin-Watson stat	2.071314
Prob(F-statistic)	0.000000		



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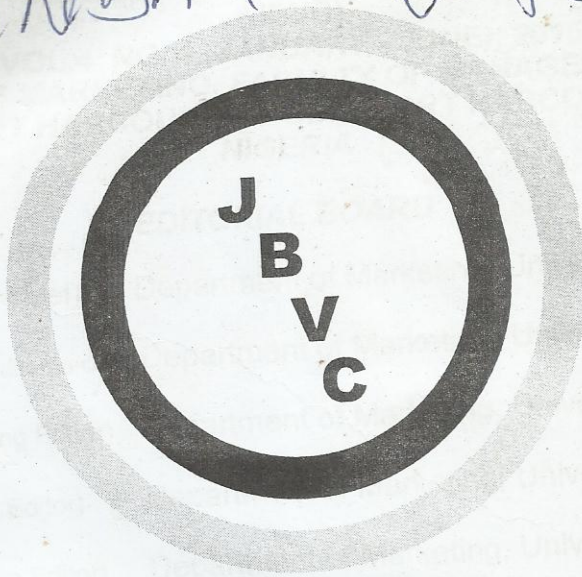
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