Impact of the Board Structure on the Performance of Firms in Nigeria

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INTRODUCTION
The board of directors has long been recognized as an important corporate governance mechanism for aligning the interests of managers and all stakeholders to affirm. The need to adopt the right corporate governance mechanisms (board structure) for the purpose of such alignment is driven by the agency problem and the associated free rider problem that makes it difficult for any single investor or stakeholder to breathe cost of monitoring managers. The central role of board of directors in this process has therefore been recognized and in recent years has gained significant attraction for at least a couple of reasons. Firstly, both transition countries and other developing countries are struggling to attract resources for investment in an increasingly competitive global environment. Secondly, events at Enron and several other large corporations suggest the need for policies to promote board structure and other aspects of corporate governance.

Accordingly, Oman et al., (2003) and Morck and Yeung, (2004) argue that different forms of ownership structures are associated with different sets of agency problems. In developed countries such as US and the UK where share ownership is widely diffused, agency problem is more common between managers and shareholders. In contrast, in developing countries such as Nigeria, Ghana and South-Africa, etc. have been characterized with concentrated equity ownership, agency problem is most predominant between controlling shareholders and minority shareholders.

In developing economy, countries could ill afford to maintain structures that perpetuate expropriation of minority shareholders since such countries are in need of additional, especially outside resources to support investment and growth? Foreign investors may be scared of such expropriation and they might well argue for an effective control of the firms themselves, but the political backlash that this will unleash could cause political resistance to such levels of foreign control. Thus, strengthening board structure and other forms of firm level governance is most important, and particularly so in developing countries with weak institutions but are yearning to attract foreign resources.

In developing countries with weak legal institutions it is sometimes difficult for foreign investors to seek legal redress when the developing country partner violates contractual agreement. Since there are no global laws enforcement agencies to deal with the concomitant problems (Collier, 2006). The prevailing wave of economic reforms offers another twist to the argument for the need to strengthen corporate governance. In Nigeria, economic and political reforms have been at the heart of policy: Firstly, the pension system has been reformed, with a switch from non-contributory to a contributory system. Secondly, the process of bank consolidation has gathered pace, with a new capitalization requirement for banks forcing many of them to merge and reducing their number from 89 before the reforms to 25 by October 2007. Thirdly the Fiscal Responsibility Bill has been passed into law by the national assembly. Finally, the Central Bank of Nigeria (CBN) has recently adopted inflation targeting as the main framework of monetary policy, with price stability being the overarching goal. Admittedly, these reforms are designed to facilitate economic and social progress in Nigeria as well as promote the integration of the country into the global economy. However, in order there forms to achieve the desired objectives, the private sector must institute sound firm level practices that include measures to strengthen board effectiveness as well as encourage the development of other aspects of corporate governance.

The issue of board structure and corporate governance in general has long been neglected in Nigeria. It was not until in November 2003 that a code of corporate governance was developed which makes a specific set of recommendations on how to promote board structure and corporate governance in general. The relative neglect of corporate governance in Nigeria’s public policy is perhaps a reflection of the paucity of research in the area of corporate governance in Nigeria. This study is a contribution to the ongoing debate on impact of corporate board structure and firm performance in Nigeria.
The main objective of this study is to examine the impact between measures of board structure and the financial performance of firms listed in the Nigerian Stock Exchange (NSE). This broad objective can be divided into five specific objectives, one each for the five measures of board structure:

1. To examine whether firm performance is affected by board size
2. To ascertain the extent to which firm performance is influence by the board composition
3. To examine whether or not the separation of the posts of CEO and Board Chair is of any value in the promotion of firm performance
4. To investigate whether or not there is a significant relationship between the proposition of insider or outsider director and firm performance.
5. To investigate that how the performance of all sectors of listed companies of Pakistan is affected by board composition.

Literature Review and Theoretical Framework

Conceptual Review

Corporate governance can be defined as the way in which stakeholders (owners/shareholders, creditors, employees, customers, managers, suppliers, the government and local residents) of the firm have an influence over the management of a firm (Shah et al., 2011). Corporate governance refers to the way an organization is administrated, directed or controlled. It provides the set of rules and regulations for the current and potential stakeholders that affect the manager’s decision and it specifies the distribution of responsibilities and rights among stakeholders.

Boards mostly compose of executive and non-executive directors. Executive directors refer to dependent directors and non-Executive directors to independent directors (Shah et al., 2011). At least one third of independent directors are preferred in board, for effective working of board and for unbiased monitoring. Dependent directors are also important because they have insider knowledge of the organization which is not available to outside directors, but they can misuse this knowledge by transferring wealth of other stockholders to themselves (Beasley, 1996).

Board size is one of the well studied board characteristics from two different perspectives. First, the number of directors may influence the board functioning and hence corporate performance. Secondly, the study of boards of directors as decision-making groups by integrating literature on group dynamics and workgroup effectiveness. Hence, board size can have both positive and negative effects on board performance.

Several studies have examined the separation of CEO and chairman of the board, positing that agency problems are higher when the same person occupies the two positions.

The situation where the CEO is simultaneously the chairman of the board is called CEO duality. Proponents of a combination of the two corporate roles favour a strong unified leadership structure. Such clear-cut leadership removes any ambiguity of accountability and responsibility for firm processes and outcomes (Dalton et al., 1999). It is also favored by stewardship theory which argues that executives act in the best interest of shareholders, and which rejects the self-interested model of executives used in the agency perspective (Davis et al., 1997).

Board that has served together for a long time is likely to have acquired a high level of firm specific knowledge and skills. However long-tenured boards are also likely to experience lower levels of cognitive conflict, because in working together they are likely to have developed a shared understanding of the issues facing the firm and the appropriate repertoire of responses available to it. (Forbes and Milliken, 1999)

Board dynamic can be defined as the impact of changes in a firm’s characteristics or performance on subsequent changes in board composition. Hermalin and Weisbach (2003) take this approach and estimate the factors that lead to changes in corporate boards. They find that three kinds of factors are statistical related to changes in corporate board.

First, poor firm performance increases the likelihood that inside directors will leave the board and outside directors will join.

Second, the CEO succession process appears to be intertwined with the board selection process. When a CEO nears retirement, firm tend to add insider directors, who are potential candidates to be the next CEO. Just after the CEO change, insider directors tend to leave the board.

Finally, after the firm leaves a product market, insider directors tend to depart the board and outsider directors tend to join.

Firm’s performance

Firm performance is studied and measured by different researchers (Bhagat & Black, 1999, Shah et al., 2011; Matolcsy & Wright, 2011; Yasser et al., 2011) using different measures.

Matolcsy & Wright (2011) measured firm performance measured by ROA (Return on Assets= EBIT / Average total Assets - in book value) Yasser et al. (2011) used return on equity (ROE) and profit margin (PM) for the
measurement of firm performance. Bhagat & Black (1999) measured dependent variable and firm performance by Tobin’s Q, Return on assets (Operating income/Assets), Turnover ratio (Sales/Assets), Operating margin (Operating income/Sales), Sales per employee and also by Growth of Assets, Sales, Operating income, Employees and Cash flows.

Market based measures of companies’ performance were done by Shah et al. (2011) by Marris ratio (Market value of equity/ book value of equity) and Tobin’s Q (market value of equity + book value of debt/total of assets - in book value -), whereas financial reporting perspective was measured by ROE and Return on investment (net result + interest) / (equity +total debt).

**Theoretical Review**

**Agency Theory and the Monitoring Tasks**

The monitoring tasks of boards, also describe as the “control” role. The monitoring task refers directly to the responsibility of directors to monitor managers on behalf of shareholders.

The theoretical underpinning of the board’s monitoring tasks is derived from agency theory, which describes the potential for conflicts of interest that arise from the separation of ownership and control in organization (Berle and Means, 1932; Fama and Jensen 1982).

**Resource Dependence Theories**

A second important theory to measured board effectiveness is the provision of resources. The board is an essential link between the firm and the external resources that a firm needs to maximize its performance (Pfeffer and Salancik, 1978).

The effectiveness of boards refers directly to the ability of the board to bring resource to the firm. Resource being anything that could be thought of as a strength or weakness of a given firm. Accordingly, in the resources dependence role, director also brings resources to the firm, such as information, skills, access to key constituents (e.g. suppliers, buyers, public policy decision makers, social groups), and legitimacy (Gales and Kenser,1994).

**Stewardship Theories**

Stewardship theory defined a situation where managers are not motivated by individual goals, but rather than are stewards whose motive are aligned with the objective of their principals (Davis et al., 1997). The managers are highly trusted as they are not motivated by self-interest and that everyone is working for the benefit of the organization. Manager is stewards of the organization, trustworthy individuals who will look after the interest of owners of the corporation.

**Shareholder Theories**

The Shareholder theory was originally proposed by Milton Friedman and it states that the sole responsibility of business is to increase profits. It is based on the premise that management are hired as the agent of the shareholders to run the company for their benefit, and therefore they are legally and morally obligated to serve their interests. The only qualification on the rule to make as much money as possible is "conformity to the basic rules of the society, both those embodied in law and those embodied in ethical custom."

**Empirical Review**

Forbes and Milliken (1999) show a significant correlation between stock owned by outside directors and company performance.

Guest (2009) find in U.K firms that board ownership has a strong positive impact on long run share returns and a weak positive impact on operating performance.

Expanding the number of directors provides an increased pool of expertise because larger boards are likely to have more knowledge and skills at their disposal. Besides, large boards may be able to draw on a variety of perspectives on corporate strategy and may reduce domination by the CEO (Van den Bemrhe and Levrau, 2004). Lipton and Lorsch (1992) argue that large boards are less effective and are easier for the CEO to control. In consistent with Nigerian study, Sarda et al (2005) found that, firm performance is positively related to large, as opposed to small boards.

Forbes and Milliken, (1998) equally argues that, firms with separate COEs and chairman will outperform firms with one person undertaking a dual role. In the context of developing country, Sarda et al (2008) in a Nigerian study found a positive relationship between firm performance and separating the functions of the CEO and Chairman.

The relationship that exists between firm performance and corporate governance was reflected by Yasser et al. (2011); using two proxies (ROE and Profit Margin) and four corporate governance mechanisms (board size, audit committee, board composition and Chairman (CEO) Duality) and found different linkages between them.
Bhagat & Black (1999) and Shah et al. (2011) also found linkage between corporate governance and firm performance while studying board composition and ownership structure.

**Methodology**

Some authors have used one or two mechanisms to measure impact of boards on performance corporate governance, but for the purpose of this study, four corporate governance mechanisms will be used which are Board Size (BSZ), Board Composition (BCP) and Chief Executive Officer (CEO) status. It is important to state that this study employs four financial ratios (PM, EPS and NPS) as dependent variables and four corporate governance mechanisms (BSZ, BCP and CEO) as independent variable to measure the firm’s performance.

**EPS** = Profit Available for Ordinary Shareholders

Issued Ordinary Shares ranking for Dividend

This is profit attributable to each equity share based on the profit for the period after tax and after deducting minority interest and preference dividends, but before taking into account extraordinary items.

The Profit Margin (PM) the profit after tax as a percentage of the total turnover is measured as

PM = Profit after tax

Turnover

Net Asset per Share (NPS) divide the total net asset value of the fund or company by the number of shares outstanding.

PM = Profit after tax

Turnover

Net Asset per Share (NPS) divide the total net asset value of the fund or company by the number of shares outstanding.

Net Asset

Number of equity share in issued

BSIZE = Board size Number of directors on the board

BCOMP = Board composition Proportion of outside directors sitting on the board

CEO = Chief Executive Status Value zero (0) for if the same person occupies the post of the chairman and the chief executive and one (1) for otherwise. The board size will be number of directors sitting on the board of a firm in a particular financial year.

To identify the separate effect of the dependent variables (PM, EPS and NPS) on each of the independent variables (BSZ, BCP, CEO) and also to examine the relationship between the board structures on the performance of firms, both simple and multiple regression analysis of the ordinary least square (OLS) will be used in this study.

The economic model used in the study (which was in line with what is mostly found in the literature) is given as:

\[ Y = a_0 + a_1 X_1 + U \]

Where

Y = Dependent variable

\( a_0 \) = Constant

\( a_1 \) = the parameters to be estimated

\( X_1 \) = Independent variables

U = Error term.

It is important to state that this study does not employ Tobin’s Q (the market value of equity plus the market value of debt divided by the replacement cost of all assets) has been used extensively as a proxy for measuring firm’s performance. Therefore it is however difficult to get the required information relating to the market value of debt issued by Nigerian firms, since these are not usually disclosed in their financial reports. This is due to the simplicity, common use and essential component of the OLS over other econometric methods. The model can be represented thus:

\[ \text{PM} = f (\text{BSZ}, \text{BCP}, \text{CEO}) \]

\[ \text{EPS} = f (\text{BSZ}, \text{BCP}, \text{CEO}) \]

\[ \text{NPS} = f (\text{BSZ}, \text{BCP}, \text{CEO}) \]

\[ \text{PM} = f (\text{BSZ}) \]

\[ \text{PM} = f (\text{BCP}) \]

\[ \text{PM} = f (\text{CEO}) \]

\[ \text{EPS} = f (\text{BSZ}) \]

\[ \text{EPS} = f (\text{BCP}) \]

\[ \text{EPS} = f (\text{CEO}) \]

\[ \text{NPS} = f (\text{BSZ}) \]

\[ \text{NPS} = f (\text{BCP}) \]

\[ \text{NPS} = f (\text{CEO}) \]

\[ \text{PM} = a_0 + a_1 \text{BSZ} + a_2 \text{BCP} + a_3 \text{CEO} + U_1 \]

\[ \text{EPS} = b_0 + b_1 \text{BSZ} + b_2 \text{BCP} + b_3 \text{CEO} + U_2 \]

\[ \text{NPS} = c_0 + c_1 \text{BSZ} + c_2 \text{BCP} + c_3 \text{CEO} + U_3 \]

\[ \text{PM} = d_0 + d_1 \text{BSZ} + U_4 \]
\[ PM = e_0 + e_1 \text{BCP} + U_5 \] ............................................... (5)

\[ PM = f_0 + f_1 \text{CEO} + U_6 \] ............................................... (6)

\[ \text{EPS} = g_0 + g_1 \text{BSZ} + U_7 \] ............................................... (7)

\[ \text{EPS} = h_0 + h_1 \text{BCP} + U_8 \] ............................................... (8)

\[ \text{EPS} = i_0 + i_1 \text{CEO} + U_9 \] ............................................... (9)

\[ \text{NPS} = j_0 + j_1 \text{BSZ} + U_{10} \] ............................................... (10)

\[ \text{NPS} = k_0 + k_1 \text{BCP} + U_{11} \] ............................................... (11)

\[ \text{NPS} = l_0 + l_1 \text{CEO} + U_{12} \] ............................................... (12)

Where:

PM (Profit Margin), EPS (Earning per Share) and NPS (Net Asset per Share) respectively are the dependent variable in each equation.

BSZ (Board Size), BCP (Board Composition) and CEO (CEO status) are the independent variables in each equation:

\[ a_0 - l_0 \] are the constant terms

\[ a_1 - l_1 \] the parameters to be estimated.

\[ a_2 - C_2 \] are the stochastic variables or error term incorporating other factors that are not considered in the model.

The annual reports and accounts of the listed firms used were obtained from the Lagos office of the Nigerian Stock Exchange (NSE). These annual reports serve as the main source of all the variables T. All the 30 firms covered nearly all other sectors except the financial sector which was purposely not included.

Both single and multiple regression analysis of the ordinary least square (OLS) regression analysis will be used. The OLS can be used in determining the impact and relationship that exist between two or more variables.

Test of statistical adequacy, such as the adjusted R-square, t-statistic, Durbin-Watson will be carried out in order to assess the relative significant of the variables, the desirability and reliability of model estimation parameters.

4.0 PRESENTATION AND INTERPRETATION OF DATA

This section focuses on the presentation of data, empirical analyses of specified models of the research work, and the interpretation of the model estimation results.

### Table 4.1 Regression Result 1

<table>
<thead>
<tr>
<th>Dependent Variable (PM)</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.492</td>
<td>0.321</td>
<td>-1.534</td>
<td>0.127</td>
</tr>
<tr>
<td>BSZ</td>
<td>0.057</td>
<td>0.025</td>
<td>2.251</td>
<td>0.026</td>
</tr>
<tr>
<td>BCP</td>
<td>0.358</td>
<td>0.286</td>
<td>1.251</td>
<td>0.213</td>
</tr>
<tr>
<td>CEO</td>
<td>-0.251</td>
<td>0.273</td>
<td>-0.92</td>
<td>0.359</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.042</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.022</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F – statistic</td>
<td>2.125</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prob. (F – statistic)</td>
<td>0.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durbin Watson</td>
<td>1.954</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There is positive relationship between PM and BSZ. Also There is positive relationship between PM and BCP. While There is negative relationship between PM and CEO.

BSZ is statistically significant to PM, while BCP and CEO are statistically insignificant to PM.

All the independent variable or exogenous variable (BSZ, BCP & CEO) explained only 4% in total variation in dependent variable (PM). While remaining 96% is explain by other factor not included in the model. The F-statistic which measures the strength of the regression shows that the overall statistic is statistically insignificant which therefore proves the model is not goodness of fit of the variables.

The Durbin-Watson (DW), if it is more than two, it results to negative autocorrelation. In addition, if it is less than two, it could have positive autocorrelation. Statistics show that there is positive autocorrelation of the first order. This means that there is no autocorrelation between board structure (BSZ, BCP and CEO) and firm performance (PM).
Statistically positive relationship means that when BZS and BCP increased, the firm performance (PM) also increased. While negative relationship means that when CEO increased the PM reduced. Also statistically significant result shows that change in the BZS will have significant effect on the PM. While statistically insignificant result shows that increase in the BCP and CEO will not have significant effect on the PM; the implication of this is that for the sampled firms, there is no relationship between the firms’ financial performances and the outside directors sitting on the board. The implication is that when a board is deemed independent, performance of firm is worse. Suggest that board expanded for political reasons often result in too many outsiders on the board, which does not help firm performance. For the CEO, the implication of this is that for the sampled firms, there is no relationship between the firms’ financial performances (CEO Status) and PM. Also contradict with Sanda et al (2008) in a Nigerian study found a positive relationship between firm performance and separating the functions of the CEO and Chairman. This is consistent with stewardship theory argues that firms with dual CEO-Chair will outperform those firms separate CEO-Chair. (Donaldson and Muth, 1998)

### Dependent Variable (EPS)

**Table 4.2 Regression Result 2**

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>386.721</td>
<td>113.923</td>
<td>3.395</td>
<td>0.001</td>
</tr>
<tr>
<td>BSZ</td>
<td>47.738</td>
<td>8.978</td>
<td>5.317</td>
<td>0.000</td>
</tr>
<tr>
<td>BCP</td>
<td>-78.80310</td>
<td>1.673</td>
<td>-0.775</td>
<td>0.440</td>
</tr>
<tr>
<td>CEO</td>
<td>-623.399</td>
<td>96.848</td>
<td>-6.43792</td>
<td>0.000</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.287</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.272</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F – statistic</td>
<td>19.572</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prob. (F – statistic)</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durbin Watson</td>
<td>0.594</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There is positive relationship between EPS and BSZ, while negative relationship between EPS and each of BCP and CEO.

BZS and CEO are statistically significant to the EPS, while BCP is statistically insignificant to EPS.

All the independent variable or exogenous variable (BSZ, BCP & CEO) explained only 29% in total variation in dependent variable (EPS). While remaining 71% is explain by other factor not included in the model.

The F-statistic which measures the strength of the regression shows that the overall statistic is statistically significant which therefore proves the model is goodness of fit of the variables.

The Durbin-Watson (DW) Statistics show that there is positive autocorrelation of the first order. This means that there is no autocorrelation between board structure (BSZ, BCP,CEO) and firm performance (EPS).

Statistically positive relationship means that when BZS increased, the firm performance (EPS) also increased. While negative relationship means that when BCP and CEO increased the EPS reduced. Also statistically significant result shows that change in the BZS and CEO will have significant effect on the EPS. While statistically insignificant result shows that increase in the BCP will not have significant effect on the EPS. The implication of this is that for the sampled firms, there is no relationship between the BCP and EPS. The fact is that the large outside director sitting in the board does not necessary enhance performance of the firms. This
means those outsider directors sitting in the board meeting are there for their own personal interest or for the political interest.

**Dependent Variable (NPS)**

**Table 4.3 Regression Result 3**

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-947.587</td>
<td>402.990</td>
<td>-2.351</td>
<td>0.20</td>
</tr>
<tr>
<td>BSZ</td>
<td>179.431</td>
<td>31.758</td>
<td>5.650</td>
<td>0.000</td>
</tr>
<tr>
<td>BCP</td>
<td>-219.665</td>
<td>359.657</td>
<td>-0.611</td>
<td>0.5423</td>
</tr>
<tr>
<td>CEO</td>
<td>178.672</td>
<td>342.589</td>
<td>-0.522</td>
<td>0.603</td>
</tr>
</tbody>
</table>

R-squared 0.203
Adjusted R-squared 0.187
F – statistic 12.389
Prob. (F – statistic) 0.000
Durbin Watson 0.552

There is positive relationship between NPS and each of BSZ and CEO. While There is negative relationship between NPS and BCP.

BSZ is statistically significant to NPS, while BCP and CEO are statistically insignificant to NPS.

All the independent variable or exogenous variable (BSZ, BCP & CEO) explained only 20% in total variation in dependent variable (NPS). While remaining 80% is explain by other factor not included in the model.

The F-statistic which measures the strength of the regression shows that the overall statistic is statistically significant which therefore proves the model is goodness of fit of the variables.

The Durbin-Watson (DW) Statistics show that there is positive autocorrelation of the first order. This means that there is no autocorrelation between board structure (BSZ, BCP,CEO) and firm performance (NPS).

Statistically positive relationship means that when BZS and CEO increased, the firm performance (NPS) also increased. While negative relationship means that when BCP increased the NPS reduced. Also statistically significant result shows that change in the BZS have significant effect on the NPS. While statistically insignificant result shows that increase in the BCP and CEO will not have significant effect on the NPS; for BCP surface. The insinuation is that when a board is deemed independent, performance of firm is worse. Suggest that board expanded for political reasons often result in too many outsiders on the board, which does not help firm performance, CEO status, which leads to leadership facing conflict of interest and agency problems. It has been clearly that problems tend to be higher when the same person holds both positions.
### Dependent Variable (PM)

#### Table 4.4 Regression Result 4

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.469</td>
<td>0.231</td>
<td>-2.035</td>
<td>0.044</td>
</tr>
<tr>
<td>BSZ</td>
<td>0.05</td>
<td>0.024</td>
<td>2.082</td>
<td>0.039</td>
</tr>
</tbody>
</table>

R-squared 0.028
Adjusted R-squared 0.022
F – statistic 4.334
Prob. (F – statistic) 0.039
Durbin Watson 1.927

There is positive relationship between PM and BSZ. The BSZ is statistically significant to the PM. The BSZ is explained only 3% in total variation in PM. While remaining 97% is explain by other factor not included in the model.

The F-statistic which measures the strength of the regression shows that the model is statistically significant which therefore proves the model is goodness of fit of the variables.

The Durbin-Watson (DW) Statistics show that there is positive autocorrelation of the first order. This means that there is no autocorrelation between board structure (BSZ) and firm performance (PM). In addition when BSZ increased, firm performance (PM) will also be increased. While statistically significant to the PM implies that any increase in the board size (BSZ) will result to a significant change in the firm performance (PM). However, it’s consistent with agency theory in literature, which view that larger boards are better for corporate performance.

#### Dependent Variable (PM)

#### Table 4.5 Regression Result 5

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.179</td>
<td>0.169</td>
<td>-1.055</td>
<td>0.293</td>
</tr>
<tr>
<td>BCP</td>
<td>0.311</td>
<td>0.284</td>
<td>1.096</td>
<td>0.275</td>
</tr>
</tbody>
</table>

R-squared 0.008
Adjusted R-squared 0.001
F – statistic 1.201
Prob. (F – statistic) 0.275
Durbin Watson 1.900

There is positive relationship between PM and BCP. The BCP is statistically insignificant to the PM. The BCP is explained only 1% in total variation in PM. While remaining 99% is explain by other factor not included in the model.
The F-statistic which measures the strength of the regression shows that the model is statistically insignificant which therefore proves the model is not goodness of fit of the variables.

The Durbin-Watson (DW) Statistics show that there is positive autocorrelation of the first order. This means that there is no autocorrelation between board structure (BCP) and firm performance (PM).

Statistically positive relationship means that when BCP increased, the firm performance (PM) also increased. While statistically insignificant to PM means that increase in board composition (BCP) will not cause any significant change in the PM. This means those outside directors sitting in the board meeting are there for their own personal interest or for the political interest.

Dependent Variable (PM)

Table 4.6 Regression Result 6

<table>
<thead>
<tr>
<th>Variable (PM)</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.013</td>
<td>0.253</td>
<td>0.049</td>
<td>0.961</td>
</tr>
<tr>
<td>CEO</td>
<td>-0.018</td>
<td>0.260</td>
<td>-0.069</td>
<td>0.945</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.007</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F – statistic</td>
<td>0.005</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prob. (F – statistic)</td>
<td>0.945</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durbin Watson</td>
<td>1.886</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There is negative relationship between PM and CEO. The CEO is statistically insignificant to the PM. The F-statistic which measures the strength of the regression shows that the model is statistically insignificant which therefore proves the model is not goodness of fit of the variables.

The Durbin-Watson (DW) Statistics show that there is positive autocorrelation of the first order. This means that there is no autocorrelation between board structure (CEO) and firm performance (PM). Regarding CEO status, the result point to negative and insignificantly related to PM. Negative relation means that when CEO increased, the firm performance will be reduced. While insignificantly relation to PM implies that an increase in PM cannot be significantly attributed to the CEO status. The implication of this is that for the sampled firms, there is no relationship between the firms’ financial performances(CEO Status) and PM. Also contradict with Sanda et al (2008) in a Nigerian study found a positive relationship between firm performance and separating the functions of the CEO and Chairman.

Dependent Variable (EPS)

Table 4.7 Regression Result 7

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-93.138</td>
<td>93.192</td>
<td>0.319</td>
</tr>
<tr>
<td>BSZ</td>
<td>30.989</td>
<td>9.787</td>
<td>0.002</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.063</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.057</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F – statistic</td>
<td>10.027</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prob. (F – statistic)</td>
<td>0.002</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Durbin Watson 0.491

There is a positive relationship between EPS and BSZ. The BSZ is statistically significant to the EPS. The BSZ explains only 6% in total variation in EPS. While remaining 94% is explained by other factors not included in the model.

The F-statistic which measures the strength of the regression shows that the model is statistically significant which therefore proves the model is goodness of fit of the variables.

The Durbin-Watson (DW) Statistics show that there is positive autocorrelation of the first order. This means that there is no autocorrelation between board structure (BSZ) and firm performance (EPS). This means that when BSZ increases, firm performance (EPS) will also increase. While statistically significant to EPS implies that any increase in the board size (BSZ) will result in a significant change in the firm performance (EPS).

### Table 4.8 Regression Result 8

<table>
<thead>
<tr>
<th>Variable (EPS)</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>306.762</td>
<td>69.227</td>
<td>4.431</td>
<td>0.000</td>
</tr>
<tr>
<td>BCP</td>
<td>203.889</td>
<td>9.787</td>
<td>-1.757</td>
<td>0.081</td>
</tr>
</tbody>
</table>

R-squared 0.020

Adjusted R-squared 0.014

F-statistic 3.086

Prob. (F-statistic) 0.081

Durbin Watson 0.459

There is a positive relationship between EPS and BCP. The BCP is statistically significant to the EPS. The BSZ explains only 2% in total variation in EPS. While remaining 98% is explained by other factors not included in the model.

The F-statistic which measures the strength of the regression shows that the model is statistically significant which therefore proves the model is goodness of fit of the variables.

The Durbin-Watson (DW) Statistics show that there is positive autocorrelation of the first order. This means that there is no autocorrelation between board structure (BSZ) and firm performance (EPS). The board composition (BCP) is positively related and statistically significant to EPS. This means that when BCP increases, firm performance (EPS) will also increase. While statistically significant to EPS means that increase in board composition (BCP) will cause any significant change in the EPS. This means those outside directors sitting in the board meeting are there for their shareholder interest not for personal interest or for the political interest.

### Dependent Variable (EPS)

### Table 4.9 Regression Result 9

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>659.825</td>
<td>96.460</td>
<td>6.840</td>
</tr>
<tr>
<td>CEO</td>
<td>-493.564</td>
<td>99.140</td>
<td>-4.978</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.138</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
There is negative relationship between EPS and CEO. The CEO is statistically significant to the EPS. The CEO is explained only 14% in total variation in EPS. While remaining 86% is explain by other factor not included in the model.

The F-statistic which measures the strength of the regression shows that the model is statistically significant which therefore proves the model is goodness of fit of the variables.

The Durbin-Watson (DW) Statistics show that there is positive autocorrelation of the first order. This means that there is no autocorrelation between board structure (CEO) and firm performance (EPS). CEO status indicate negative relation and statistically significant to the (EPS), also means that when CEO status increase, firm performance (DPS) will be reduced, while statistically significant relation means that there is relationship between CEO status and firm performance (EPS).

Variable (NPS)

| Table 4.10 Regression Result 10 |
|------------------------------|-----------------|-----------------|-----------------|-----------------|
| Coefficient                  | Std. Error      | t-Statistic     | Prob.           |
| Constant                     | -944.270        | -3.276          | 0.001           |
| BSZ                          | 184.0.75        | 30.266.0820.000 |                 |
| R-squared                    | 0.200           |                 |                 |
| Adjusted R-squared           | 0.195           |                 |                 |
| F – statistic                | 36.989          |                 |                 |
| Prob. (F – statistic)        | 0.000           |                 |                 |
| Durbin Watson                | 0.553           |                 |                 |

There is positive relationship between NPS and BSZ. The BSZ is statistically significant to the NPS. The BSZ is explained only 20% in total variation in NPS. While remaining 80% is explain by other factor not included in the model.

The F-statistic which measures the strength of the regression shows that the model is statistically significant which therefore proves the model is goodness of fit of the variables.

The Durbin-Watson (DW) Statistics show that there is positive autocorrelation of the first order. This means that there is no autocorrelation between board structure (BSZ) and firm performance (NPS). Board size is positive and significantly related to the NPS. This means that increased in the BSZ will be result to increase in the firm performance (NPS). An increased in the board size will bring about a significant change in the NPS. However be explained by the fact that the BSZ of a firm measured by its profit base does necessarily enhance performance by way of put to efficient use. The implication therefore is that most firms in Nigeria are utilizing their optimal board size to enhance their performance.
Dependent Variable (NPS)

Table 4.11 Regression Result 11

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>846.421</td>
<td>233.893</td>
<td>3.619</td>
</tr>
<tr>
<td>BCP</td>
<td>-167.005</td>
<td>392.157</td>
<td>-0.426</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F – statistic</td>
<td>0.181</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prob. (F – statistic)</td>
<td>0.671</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durbin Watson</td>
<td>0.505</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There is negative relationship between NPS and BCP. The BCP is statistically insignificant to the NPS. The BCP is explained only 1% in total variation in EPS. While remaining 99% is explain by other factor not included in the model.

The F-statistic which measures the strength of the regression shows that the model is statistically insignificant which therefore proves the model is not goodness of fit of the variables.

The Durbin-Watson (DW) Statistics show that there is positive autocorrelation of the first order. This means that there is no autocorrelation between board structure (BCP) and firm performance (NPS). Board composition is negative related and statistically insignificant to the NPS. Negatively relationship means that increase in the BCP will not be result to increase in the firm performance (NPS). While statistically insignificant to the NPS shows that the increase in board composition (BCP) will not cause any significant change in the NPS. The implication of this is that for the sampled firms, there is no relationship between the firms’ financial performances and BCP and the fact that the independence of a board is not really critical for the effective performance of firm.

Dependent Variable (NPS)

Table 4.12 Regression Result 12

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>109.244</td>
<td>344.471</td>
<td>0.317</td>
</tr>
<tr>
<td>CEO</td>
<td>679.916</td>
<td>354.042</td>
<td>1.920</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.024</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F – statistic</td>
<td>3.688</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prob. (F – statistic)</td>
<td>0.057</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durbin Watson</td>
<td>0.519</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There is positive relationship between NPS and CEO. The CEO is statistically significant to the NPS. The CEO is explained only 2% in total variation in EPS. While remaining 98% is explain by other factor not included in the model.
The F-statistic which measures the strength of the regression shows that the model is statistically significant which therefore proves the model is goodness of fit of the variables. The Durbin-Watson (DW) Statistics show that there is positive autocorrelation of the first order. This means that there is no autocorrelation between board structure (CEO) and firm performance (NPS). Above shows that the CEO status has positive relationship with the performance of firm (NPS) and also equally significant to the NPS. This indicates that when CEO increased, the firm performance (NPS) will also increase. Therefore statistically significant result shows that any change in the CEO will have significant effect on the firm performance (NPS). Also there is relationship between CEO and firm performance (NPS).

CONCLUSION
This study examines the relationship that exists between the board structures and firm performance, using three proxies, profit margin, earnings per share, and net asset per share and also three corporate governance mechanisms (board size, board composition, and chief executive status). A sample size of 20 quoted firms listed on the Nigerian Stock Exchange between 2009 and 2013 were used. Panel data methodology is employed; the method of analysis is multiple regressions and the method of estimation is OLS. The study reveals the following results:
1. There is a positive and significant relationship between Board Size and all the three dependent variables (i.e. PM, EPS and NPS).
2. The CEO duality is statistically significant to only the earning per share and also positively related to only the net assets per share
3. The board composition is positively related to only the profit margin and statistically insignificant to all the measures of firm performance. But when regressed alone with earning per share, it is positively related and statistically significant
4. The overall model is statistically significant which means that an increase or decrease in any of these board measures will have a significant effect on the performance of the firm

It is obvious that all these three exogenous variables are very essential in the performance of firms as confirmed by other studies. This separation between the post of Board Chairman and the Chief Executive Officer will reduce the agency cost. It also minimizes the tension between managers and board members thus influencing post. The Board Size (BSZ) indicates a positively related and statistically significant to the profit margin, earnings per share, and net asset per share. This implied that increase in the board size will result to increase in the firm performance measure (PM, EPS and NPS) which are dependent variable in each model. Also statistically significant result shows that change in the BZS will have significant effect on the firm performance measure.

In the literature, board size can have both positive and negative effects on firms’ performance. The positive impact of directors provides an increased pool of expertise because larger boards are likely to have more knowledge and skills at their disposal. Besides, large boards may be able to draw on a variety of perspectives on corporate strategy and may reduce domination by the CEO (Forbes and Milliken, 1999; Van den Berghe and Levrau, 2004).

The relationship between board composition (BCP) and the three performance measures (EPS, PM & NPS) are positive but statistically insignificant. This implied that increase in BCP will result to increase in the three firm performance measures (EPS, PM &NPS). While insignificant shown that any change in the BCP will not have any effect on the firm performance measure (EPS, PM &NPS). The implication of this is that for the sampled firms, there is no relationship between the firms’ financial performances and the outside directors sitting on the board. This outcome also has the support of Kajola, (2008) and Sanda et al (2005).

Reference:
Annual Reports & Statement of Account of the 20 selected Firms


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