EFFECT OF CORPORATE GOVERNANCE MECHANISMS ON CORPORATE PERFORMANCE: AN EMPIRICAL STUDY OF NON-FINANCIAL FIRMS IN NIGERIA

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ABSTRACT: The study examined the influence of corporate governance mechanisms on corporate performance of non-financial firms in Nigeria. Secondary data from published accounts and Nigerian Security Exchange Factbooks were analyzed using panel regression methodology. Independent variables were board size, directors’ shareholding, block holding and leverage while return on assets and return on equity was the dependent variables for the period between 1990 and 2017. Findings suggest that leverage has positive significant correlation with return on assets and return on equity while directors’ shareholding, block holding had inverse relations with dependent variables. However, board size had mixed result with a negative significant influence on return on equity while showing an inverse but insignificant impact on return on assets. The study concludes that the selected independent indicators have more influence on return on equity than return on assets. Thus, return on equity performs better than return on assets for non-financial firms in Nigeria

KEYWORDS: corporate governance mechanisms, corporate performance, Nigerian listed firms

INTRODUCTION

The main company law in Nigeria is the Companies and Allied Matters Act (CAMA) of 1990. This law emphasizes the adequate disclosure of information such as financial statements, identity and emoluments of directors and names of members/shareholders having at least 10 per cent unrestricted voting rights. To ensure shareholders’ participation in meetings and voting, the law stipulates early circulation of notice of meetings as well as the one-share-one-vote system for Nigerian companies, and in these meetings an absent shareholder is allowed to appoint a proxy. The major internal monitoring mechanisms clearly provided for in the law include the appointment of independent auditors and the appointment and removal of directors at the Annual General Meeting (AGM)

The need to align with the international best practices led the Securities and Exchange Commission (SEC) and Corporate Affairs Commission (CAC) of Nigeria to propose necessary changes that will improve the country’s corporate governance practices. This resulted in the enactment of the Code of Best Practices on Corporate Governance in Nigeria released in October 2003. The Code recognizes the board of directors as being responsible for the affairs of the company in a lawful and efficient manner to ensure that the company
is constantly improving its value creation as much as possible. It therefore requires the board to comprise a mix of executive, non-executive and independent directors headed by a chairman of the board. However this is not to exceed 15 persons or be less than five persons in total. Furthermore, the position of the chairman and chief executive officer should ideally be separated and held by different persons, and the non-executive directors should not be involved in business relationships with the company that could disrupt their free judgment.

For effective control and monitoring, the Code highlights the importance of frequent board meetings, not less than once in a quarter with sufficient notice, while shareholders should also be given enough time to contribute meaningfully in annual general meeting. Furthermore, shareholders holding more than 20 per cent of the total issued capital of a company are expected to have a representative on the board and minority shareholders to have at least one director on the board. Equally, stakeholders with larger holdings are encouraged to act and influence the standard of corporate governance positively so as to optimize stakeholders’ value. Also recommended is the establishment of a remuneration committee, wholly or mainly composed of non-executive/ independent directors and chaired by a non-executive director, to recommend the remuneration of executive directors. In promoting transparency in financial and non-financial reporting, external auditors are expected not to be involved in business with the company, while an audit committee of at least three non-executive directors should be established. It is also recommended that there should be full disclosure of directors’ total emoluments and those of the chairman and highest paid directors, including pension contributions and stock options where the earnings are not in excess.

Corporate governance discourses the agency problems that epitomize modern corporations. This has gained more attention following the problems observed in some large corporations in some advanced countries like Enron, Aldephia, WorldCom and emerging economy (Cadbury in Nigeria). This attention is evident in the releases of updated codes of governance for countries and corporate entities, as well as reforms that establish the relation between governance and some firm characteristics.

Consequently, in order to align with international best practices, Nigeria identified board composition and operations as the major weaknesses in its existing corporate governance practices. The steps taken by government to solve these problems included the release of the Code of Corporate Governance in Nigeria by the Security and Exchange Commission in collaboration with the Corporate Affairs Commission in 2003 (hereafter ‘the Code’) and the Conduct of Shareholders Association in Nigeria issued by the Security and Exchange Commission in 2007. This study therefore examined the effect of corporate governance mechanisms on performance of Nigerian non-financial firms to determine the one that enhances firms’ performance better out of return on assets and return on equity. Specifically, the study sets out to:

- examine the effect corporate governance mechanisms on return on assets of non-financial firms in Nigeria
evaluate the extent to which corporate governance indicators affect return on equity of non-financial firms in Nigeria

Two null hypotheses formulated are:

H01: corporate governance mechanisms do not impact significantly on return on assets of non-financial firms in Nigeria

H02: corporate governance indicators do not impact significantly on return on equity of non-financial firms in Nigeria

The rest of the paper is arranged as follows. In Section 2, we discuss the literature review covering both theoretical and empirical studies. This is followed by the methodology in Section 3 and the study results in Section 4. Finally, we present summary of the paper and recommendations in Section 5.

LITERATURE/THEORETICAL UNDERPINNING

Literature Review

Several empirical studies have established higher directors’ shareholding as a good governance mechanism that aids performance (Assefa & Megbaru, 2014; Adewuyi & Olowokere, 2013; Ashbaugh-Lee & Yeo, 2005; and Brown & Caylor, 2004). In other words, an increase (a decrease) in directors’ shareholding is considered a good (bad) governance change.

In addition, high concentration of share ownership/block holding tends to create more pressure on managers to behave in ways that are value maximizing. Several studies have established relationship including Rostami, Rostami & Kohansal 2016, Amer, 2014, Adewuyi & Olowokere 2013, 2008, Moustafa 2006, Sanda, Mikailu & Garba, 2005 and Cremers & Nair 2003). Hence, an increase (a decrease) in the ownership concentration of a firm represents a good (bad) governance change.

Board size and firm performance have also been related in the literature. Thus, a smaller board size is often associated with greater efficiency (Rostami et al., 2016; Dabor, Isiavwe, & Ajagbe, 2015; Amer, 2014; Hassan, & Halbouni, 2013; Rashid, De Zoysa, Lodh, & Rudkin, 2010; Van den Berghe & Levrau, 2004; Yermack, 1996; and Jensen, 1993). In this study, therefore, a decrease (increase) in board size is considered a good (bad) governance change.

Finally, debt owed to large creditors is expected to introduce some discipline into a firm's management and thereby improve the firm’s value (Hussain et al., 2016; Mule, & Mukras, 2015; Al-matari, 2014; Adewuyi et al, 2013; Akhtar, Benish, & Haleema, 2012; Adewuyi & Olowookere, 2009; Sanda et al., 2005, Sakai & Asaoka, 2003 and Agrawal & Knoeber, 1996). In this study, increased (decreased) in leverage is depicted as a good (bad) governance change.

Some studies have examined the degree of adherence with some codes of corporate governance while others have focused on whether compliance leads to improved firm

Theoretical Underpinning

This study adopts the agency theory perspective as postulated by Jensen and Meckling (1976). In the authors’ view, agency theory is a situation where a person, called the principal, hires the service of another person, called an agent, to carry out some activities on his behalf for a fee (Jensen and Meckling, 1976). The agent represents the principal in a particular business transaction and is expected to represent the best interests of the principal without regard for self-interest. The different interests of principals and agents may become a source of conflict, as some agents may not perfectly act in the principal's best interests. Agency problems arise when the incentives between the agent and the principal are not perfectly aligned and conflicts of interest ensue. The agent may get away with not acting in the best interest of the principal. A first possible explanation is that the cost to the principal of removing or punishing the agent is too high relative to the benefit. A second and more widely applicable, explanation is the presence of information asymmetry (Jensen & Meckling 1976). Information asymmetry arises when one party (the agent) is better informed than the other (the principal). Information asymmetry makes it difficult or even impossible for principals to know whether the agent acts in his best interest. For example, if a company reports disappointing earnings figures then it may be difficult for shareholders to judge whether managers are to blame or whether the poor results are due to adverse selections or factors beyond managers' control.

On the other hand, a moral hazard can arise in a principal-agent conflict. This implies that the agent usually has more information about his or her actions than the principal does because the principal usually cannot completely monitor the agent to know whether the agent is capable of doing what he has been hired to do. The agent may have an incentive to act inappropriately (from the viewpoint of the principal) if the interests of the agent and the principal are not aligned (Jensen & Meckling, 1976).

The agency theory proposes a framework for studying the adverse selection and moral hazard problems that typifies modern corporations. This theory shows and attempts to solve the primary conflicts that arise as a result of the arrangement called the “firm”. The way the agency theory treats debt and equity financing makes it suitable for studying quoted companies’ governance and financial performance. There are two main inputs of this theory. The first is the formal proof that the smaller the ownership of a manager is in a corporation, the more he/she tends to appropriate larger amounts of the corporation’s resources in the form of privileges to himself/herself. The second input emphasizes the
desirability of minority shareholders to expend more resources in monitoring the manager’s behavior (Jensen and Meckling, 1976). The first point in the former emphasizes the importance of governance mechanisms like high directors’ shareholding and ownership concentration/block holding while optimal board size and leverage serve as monitoring mechanisms. These four governance mechanisms are considered in this study to examine the effect of corporate governance on performance of non-financial firms in Nigeria. The ex-ante changes that the adopted literature suggests that imply good or bad governance changes are summarized in Table 2.1.

### Table 2.1: Ex-ante direction for good and bad governance changes for each governance mechanisms

<table>
<thead>
<tr>
<th>Governance Mechanisms</th>
<th>Good Governance</th>
<th>Bad Governance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board Size</td>
<td>Decrease</td>
<td>Increase</td>
</tr>
<tr>
<td>Directors Shareholding</td>
<td>Increase</td>
<td>Decrease</td>
</tr>
<tr>
<td>Leverage</td>
<td>Increase</td>
<td>Decrease</td>
</tr>
<tr>
<td>Block holding /ownership concentration</td>
<td>Increase</td>
<td>Decrease</td>
</tr>
</tbody>
</table>

**Figure 2.1: Ex ante direction for good and bad governance changes for each governance mechanisms**

**Governance Mechanisms**

Source: Adopted from CPZ, 2007

### METHODOLOGY

The study adopted an ex-post facto research design to investigate the relationship between corporate governance variables and corporate performance of listed firms in Nigeria. An ex post facto research design is a method in which groups with qualities that already exist are compared on some dependent variable where already existing data is adopted. The independent variables included in the regression model were board size, directors’ shareholding, block holding and leverage while dependent variables were return on assets and return on equity.

Secondary data were sourced from companies’ annual financial statements and the Nigeria Stock Exchange (NSE) Factbook was used as a major source of firms for the study. The data were collected from thirty four (34) non-financial companies chosen from a total population of eighty (80) companies that had complete financial records and listed on the Nigerian Stock Exchanges as at December 31st, 2015. As shown in in Table 3.2, the chosen firms represented 42.5% of the population and over 60% in value of the firms that were incorporated on or before 1990 and submitted their annual statement of account to the Nigerian Securities and Exchange Commission (SEC) as at 31st December, 2015. The study adopted judgmental sampling technique. This is an intentional method based on the researchers’ knowledge and experience which enabled the selection of any groups or individuals as sample that satisfy the study objectives. (Krejcie & Morgan 1970), where a
minimum of 5% of a defined population was adopted. Panel regression model was used to analyze the data with the help of STATA 14 software package.

<table>
<thead>
<tr>
<th>Industry</th>
<th>Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conglomerate</td>
<td>AG Leventis, UACN Plc.</td>
</tr>
<tr>
<td>Unilever Nig.</td>
<td>PZ Cusson Nigeria Plc. 7 UP Bottling Company,</td>
</tr>
<tr>
<td>Construction &amp; Real Estate</td>
<td>Julius Berger Nig. Plc. Roads Nigeria Plc.</td>
</tr>
<tr>
<td>Health</td>
<td>Evans Medical, Glaxo Smithkline Plc. May and Baker Plc.</td>
</tr>
<tr>
<td>Unilever Nig.</td>
<td>Nimeth Pharmaceutical</td>
</tr>
<tr>
<td>Coy of Northern Nigeria</td>
<td>Berger Paint Plc., Beta (Delta) Glass Nig. Plc. Cement</td>
</tr>
<tr>
<td>Natural Resources</td>
<td>Thomas Wyatt Nig. Plc.</td>
</tr>
<tr>
<td>Oil &amp; Gas</td>
<td>Conoil (National oil) Plc., Mobil oil Nig. Plc., Oando (Unipetrol) Nig. Plc. Total Nig. Plc.</td>
</tr>
<tr>
<td>Services</td>
<td>University Press Plc., Studio Press</td>
</tr>
</tbody>
</table>

Figure 3.1 Lists of Firms in the Study  
**Source:** Author’s computation using SEC reports  

Model Specifications  
The study adopted Mousa, & Desok (2012) model specification, which is given as:

\[
FP_{it} = \alpha + \beta CGOV_{it} + \gamma X_{it} + \epsilon_{it}  \quad (1)
\]

Where FP is a measure of firm performance, CGOV is a vector of Corporate Governance; X is a set of enterprise characteristics variables. Mule, & Mukras, (2015) made use of Tobin’s Q, ROA and ROE as a measures of firm performance. The Firm Characteristics (X) in the model is leverage. The error term is represented by \( \epsilon \), subscript \( i \) stands for individual firm and \( t \) is time period.  

Explicitly;

The particular model, therefore, is specified as:

\[
FP_{it} = \alpha + \beta_1 BS_{it} + \beta_2 DSH_{it} + \beta_3 BH_{it} + \gamma_1 L_{it} + \epsilon_{it}  \quad (2)
\]
FP implies firm performance, BS indicates board size, DSH means directors shareholding and L is leverage. Meanwhile, \( \epsilon_{it} \) consists of two error components as:

\[
\epsilon_{it} = \lambda_i + v_{it} \quad (3)
\]

Where \( \lambda_i \) captures individual firm effect (that is individual firm differences) and \( v_{it} \) is the random error term which satisfies the Mousa, & Desok (2012) characteristics. Substituting equation (3) into (2) yields:

\[
FP_{it} = \alpha + \beta_1 BS_{it} + \beta_2 DSH_{it} + \beta_3 BH_{it} + \gamma_1 L_{it} + \lambda_i + v_{it} \quad (4)
\]

Disaggregating the dependent variable \( FP_{it} \) into two different measures of performance, such as Returns on Assets (ROA) and Returns on Equity (ROE) which yield the following equations:

\[
ROA_{it} = \alpha + \beta_1 BS_{it} + \beta_2 DSH_{it} + \beta_3 BH_{it} + \beta_4 BS^2_{it} + \gamma_1 L_{it} + \lambda_i + v_{it} \quad (5)
\]

\[
ROE_{it} = \alpha + \beta_1 BS_{it} + \beta_2 DSH_{it} + \beta_3 BH_{it} + \beta_4 BS^2_{it} + \gamma_1 L_{it} + \lambda_i + v_{it} \quad (6)
\]

**RESULTS/FINDINGS**

As shown in Table 4.1, regression result revealed that Directors Shareholding and Block Holding have negative significant influence on return on assets -2.06, 0.04 and -2.71, 0.007 t-statistics and p-value respectively. This indicates that an increase in either directors’ shareholding or block holding will lead to decline in return on assets of non-financial firms in Nigeria. This reflects bad governance as shown in our Table 2.1. This finding is in consonance with studies of Manawadugbe et al. (2013) and Sanda et al (2005). However, our results negate the findings of Rostami et al. (2016) and Awunyo-Victor et al. (2012) who observed a positive relationship between block holding and return on assets. Our findings indicate that Leverage has a positive influence on return on assets (6.87, 0.000) t-statistics and p-value respectively. This shows that increase in volume of leverage (borrowing) to finance the firms, the higher is the firm performance measured by return on asset since debt serves as an effective monitoring of management behavior. This depicts good governance in line with Table 2.1. The study is supported by the works of Wanyama et al. (2013) and Sanda et al (2005), who discovered a positive linkage between leverage and return on assets. It should be noted, however, that the studies of Hussain et al. (2016), Mule & Mukras (2015) observed an inverse correlation between the two variables. Board size had negative but insignificant relationship with performance gauged by return on assets of non-financial firms in Nigeria.
Table 4.1 Fixed Effect Regression Results of Effect of Corporate Governance Mechanisms on return on asset

Source: Author’s computation using strata software

Table 4.1 presents the effects of corporate governance indicators on return on assets. The selected corporate governance variables explain only 42.1% of changes in Return on Assets, as shown by the coefficient of determinant $R^2$ of 0.421 which means that corporate governance variables (board size, directors shareholding, block holding and leverage) jointly explained 42.1% of the variability of return on assets of Nigerian non-financial listed firms which can be regarded as a fair fit. The remaining 57.9% of the variance is not explained by the independent variables. This can be explained by other factors outside the model, like extraneous variables that are captured by the error term ($\varepsilon_{it}$). F-statistics of 3.81 shows that, generally, the selected independent variables are statistically significant at 1% level in generating return on assets of Nigerian listed firms in the study.

Regression results from Table 4.2 showed that leverage has a positive influence on return on equity (2.16, 0.031) t-statistics and p-value, respectively. This indicates that increase in debt size (leverage) lead to higher firm performance as measured by return on equity since debt serves as an effective monitoring of management behavior or large internal ownership, which results in better performance. This depicts good governance in line with Table 2.1. This is contrary to the findings of Hussain et al., 2016 and Mule et al., 2015 who observed a negative correlation between leverage and return on equity. However, Olowokere (2008), discovered positive relation between the dependent and independent variables. Regression results further revealed that board size, directors’ shareholding and block holding are inversely related to return on equity: (-2.44, 0.015; -1.76, 0.079 and -2.12, 0.034) t-statistics.
and p-value respectively. This reflects that an increase in number of board membership, increase in the size of directors’ shareholding and block holding will lead to decline of firm performance as measured by return on equity. In line with Table 2.1 board size showed good governance while directors’ shareholding and block holding suggests bad governance. These findings are corroborated by the studies of Anca-Elena (2015), Mule et al., (2015) and Bebeji et al. (2015) who discovered a negative linkage between board size and return on equity. Contrary to these, however, are the results of Hussain et.al (2016) and Gupta et al. (2015) who observed a positive association between the dependent and independent variables. Similarly, the works of Uadiaye (2010) and Olowokere (2008) supported the finding of this study with their conclusion that there is a negative relationship between directors’ shareholding and return on equity while Assefa & Megbaru (2014) found a positive association between the two indicators. Lastly, the result of this study on negative correlation between block holding and return on equity is buttressed Olowokere (2008) and Sanda et al (2005), while Manawadugbe et al. (2013), who contradicted the findings of this work, observed a positive relationship.

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(ROE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS</td>
<td>-1.809**</td>
</tr>
<tr>
<td></td>
<td>(0.743)</td>
</tr>
<tr>
<td>DSH</td>
<td>-0.133*</td>
</tr>
<tr>
<td></td>
<td>(0.0758)</td>
</tr>
<tr>
<td>BH</td>
<td>-0.160**</td>
</tr>
<tr>
<td></td>
<td>(0.0753)</td>
</tr>
<tr>
<td>L</td>
<td>5.955**</td>
</tr>
<tr>
<td></td>
<td>(2.755)</td>
</tr>
<tr>
<td>BS²</td>
<td>0.105**</td>
</tr>
<tr>
<td></td>
<td>(0.0426)</td>
</tr>
<tr>
<td>Constant</td>
<td>15.75</td>
</tr>
<tr>
<td></td>
<td>(12.07)</td>
</tr>
<tr>
<td>Observations</td>
<td>884</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.074</td>
</tr>
<tr>
<td>F-statistic</td>
<td>4.08***</td>
</tr>
<tr>
<td>Number of company</td>
<td>34</td>
</tr>
<tr>
<td>Hausman test</td>
<td>15.19*</td>
</tr>
</tbody>
</table>

Standard Error in parentheses, *** p<0.01 significant at 1%, ** p<0.05 significant at 5%, * p<0.1 Significant at 10%

Table 4.2 Fixed Effect Results of Effect of Corporate Governance Mechanisms on return on equity
Source: Author’s computation using strata software

From Table 4.2, the overall corporate governance indicators explain only 7.4% of changes in return on equity, as shown by the coefficient of determinant $R^2$ of 0.074, which means that corporate governance variables (board size, directors’ shareholding, block holding and leverage) jointly explained 7.4% of the variability of return on assets of Nigerian non-
financial listed firms. This can be regarded as a poor degree of freedom. The remaining 92.6% of the variance is not explained by the independent variables. This might be attributed to other factors outside the model, such as extraneous variables that are captured by the error term ($\epsilon_{it}$). F-statistics of 4.08 shows that generally, the selected independent variables are statistically significant at 1% level in generating return on equity of Nigerian listed firms.

**DISCUSSION**

Regression result from table 4.1 revealed that block holding, directors’ shareholding, and leverage, respectively have negative significant correlation with return on assets at 5%, 1% and 1% level of significance. It indicates that as each of the listed variables increase in value or number firm performance measured by return on asset decline in Nigeria. These results were supported by (Sanda Mikailu & Garba, 2005; Olowookere, 2008). However, board size has negative but insignificant effect on return on assets. On the other hand Regression results from Table 4.2 indicated for leverage, board size, directors’ shareholding and block holding respectively have inverse significant influence on return on equity at 5%, 5%, 10% and 5% levels of consequence. It implies as each of the four corporate governance indicators appreciates in value the return on equity as a measure of performance in Nigeria decreases. These results were corroborated by the studies of (Kiel 2006; Olowookere, 2008; Rao, & Desta, 2016)

**Implication to Research and Practice**

This study analyzed the effect of corporate governance on corporate performance of publicly quoted non-financial firms in Nigeria using fixed effects method already adopted in previous studies in developed economies. Using 884 firm-year data, the outcome revealed mixed results as there were three categories of relationships. Firstly, block holding and directors’ shareholding had negative significant relationship with return on assets and return on equity. Secondly, leverage had positive and significant impact on return on assets and return on equity. Thirdly, board size had negative significant influence on return on equity while it showed negative but insignificant effect on return on asset. The results further demonstrate that all four independent variables selected were significantly related to return on equity with two of them (board size and leverage) showing good governance while three revealed significant relationship with return on assets with only leverage showing good governance. This implies that return on equity is more responsive to the selected independent indicators than return on assets.

**CONCLUSION**

The study concludes that multidimensional changes in governance mechanism by firms may suggest substitutability among mechanisms; it is therefore necessary for regulatory bodies, firms and researchers to incorporate this into their regulations and analysis, respectively. For regulatory bodies, the same policy prescription on corporate governance may not be optimal, as optimal regulations may depend on firm characteristics and the degree of substitutability among mechanisms. Firms need to incorporate value-enhancing
governance mechanisms as well as harmonizing mechanisms to forestall the simultaneous experience of good and bad changes in governance mechanisms. Researchers should note the above, and in addition more evidence is required on the nature and degree of substitution among governance mechanisms, especially in emerging economies including Nigeria.

**Future Research**

This study has some limitations. First, the data of most firms that would have been included were not available at the time of collection hence only 34 out of 80 listed companies that produced and submitted their financial statements to the Nigerian Stock Exchange between 1990 and 2017 were used. Another limitation is that despite the knowledge that statistical estimates are more robust when probabilistic criterion is used in data gathering, this study unavoidably err in that the sample used was based solely on data availability. Lastly, the current study does not provide a detailed analysis on the manner of substitution among governance mechanisms and the characteristics of firms that are likely to experience good or bad governance changes. These may be the focus of future research. These limitations offer opportunities for future studies to add to the current study and expand the body of knowledge in the African business research literature.

**References**


