THE RELATIONSHIP BETWEEN BOARD INDEPENDENCE AND FINANCIAL PERFORMANCE OF LISTED MANUFACTURING COMPANIES IN NIGERIA

Oyewale Israel Oludele
(Corresponding Author)
School of Business, Jomo kenyatta University of Agriculture and Technology

Oloko Magret A., PhD
School of Business, Jomo kenyatta University of Agriculture and Technology

Olweny Tobiah, PhD
School of Business, Jomo kenyatta University of Agriculture and Technology

ABSTRACT

The relationship between board independence and the financial performance of listed manufacturing companies in Nigeria was investigated in this study. The manufacturing sector in Nigeria consists of 74 companies from where 34 companies were purposively selected. The study used both primary and secondary data. Secondary data was extracted from the published financial statement of the selected companies while primary data was collected with the use of questionnaire from the 170 respondents drawn from the selected 34 companies. The result confirms that there is a significant positive linear relationship between board independence and financial performance of listed manufacturing companies in Nigeria. The study recommends that manufacturing companies and all other companies should have an all inclusive board of directors. The board that is all inclusive is effective in exercising its mandate which is likely to impact positively on the firm financial performance.

Keywords: Board Independence, Financial Performance, Manufacturing Companies, Return on Equity, Corporate Governance.

INTRODUCTION

In the emerging markets where Nigeria and many African economy belongs, corporate governance is being giving a research preference after the global financial crisis of 2002 which wrecked most of the perceived world giant economy (Wanyama et al. 2009). However, majority of the research efforts in this area have capitalized on the size of the board while just a negligible proportion being directed towards board independence. The situation depicts the comparatively limited scholarly emphasis on developing markets. Kibuthu (2005) attributes the situation to possible data limitations that characterize the developing countries.

In the same way, noteworthy focus has been forged towards examining board structures, for which data is comparatively more available. However, Kibuthu (2005) notes further that research efforts engineered towards board characteristics and processes that enhance their effectiveness have been reasonably flimsy. Particularly, this is evident in the Nigerian case despite being a leading economy on the continent as well as a significant prospective economic power in the developing markets. As such, this study pursues gaining in-depth insights into the helm of board independence and its consequential effects on financial performance. It will be cognizant of the consensus that board independence is anchored upon
strong corporate governance. Thus, more emphasis will be placed on the revised SEC code of corporate governance issued in 2011.

The underlying motivation is persistent fall in the performance of majority of the listed companies in Nigeria which has been linked how boards of listed manufacturing firms in Nigeria operate and what characteristics foster their effectiveness. Therefore, the study will seek to establish the linkages between such board independence as possessed by these firms the impact on the return on equity of the selected companies. Considerably, various organizations in Nigeria, in a similar sector/ industry and/or market environment and faced with similar regulatory provisions and thus making the generalization of the results appropriate (Sademola & Soyibo, 2001). The paper is organizes to have the introduction as section 1. The review of literature is classified as section 2. Research methodology was detailed in section 3 while data analysis and conclusion were written in section 4 and 5 respectively.

**Board Independence and Financial Performance: Empirical Review**

In a study on 934 largest US firms listed with the New York Stock Exchange over a ten-year review period (1993-2002), Bhagat and Black (2002) investigated the empirical validity of the requirement for board independence and its influence on firm performance. The duo reported that the firms that hired a higher proportion of outside directors showed significantly lower financial performance, after evaluating their Return on Equity (ROE) over the review period. The stock market performance relationship was negative with the Tobin’s Q technique for the initial three years of the study (Bhagat and Black, 2002). Additionally, their study expressed that the lowly performing firms were more possible to include independent directors. However, the results from these firms showed no evidence that firms that had a higher proportion of independent directors performed better. Instead, the study showed that firms having a higher proportion of independent directors did not perform better. As such, such results purported their hypothesis, which stated that, ‘independent directors holding vital stock positions would add value while other independent directors do not.’

Likewise, Peng (2004) evaluated the association between the board composition and firm performance of Chinese firms. The study targeted all the 530 listed companies on the Shanghai and Shenzhen Stock Exchanges. These companies had combined capitalization standing at approximately 25% of China’s Gross Domestic Product (GDP). Peng (2004) relied on the Return on Equity (ROE) and sales growth as firm performance measures. Additionally, in this research the firm size and firm age were used as the control variables. Peng integrated the weighted generalized least squares procedure for the analysis of data. Convincingly, Peng reported that a growing number of independent directors in the board did not have any influence on either the ROE or sales growth. Nonetheless, Peng observed that by increasing the number of more affiliated outside directors resulted in higher subsequent sales growth. As such, Peng concluded that the role of the more affiliated outside directors in creating business networks endorsed the resultant higher sales growth.

Further, Langat (2006) carried a cross-sectional survey to examine the different governance structures that existed between three categories of companies: poorly performing growing performance stable performance over the period 2001-2005. Langat’s study targeted 47 firms listed with the Nairobi stock exchange for a five-year period. He collected secondary data from annual reports and financial statements for the companies and the Tobin’s Q technique as the performance measure. For analysis, Langat used descriptive statistics and regression
technique. As a result, the study reported an improved performance for firms that had outsider-dominated boards (where the ratio of non-executive: executive directors were higher than 60%). Concurrently, the performance for this first cluster was higher than that recorded by firms having a ratio of non-executive: executive directors at 40-60% dominance and insider-dominated boards (where the ratio of executive: non-executive directors were higher up to 40%).

Lastly, Chogii (2009) assessed the relationship between three characteristics of BODs – Board Size, Board Composition, and CEO Duality and firm performance (ROA and Tobin’s Q). Particularly, unlike the previous scholars presented here above, Choggi based his study from a point of the dominant theories of corporate governance—i.e., the agency and stewardship theories. His study covered 50 companies listed with the Nairobi Stock Exchange for the period between 2004 and 2007. The data used, as in the case of other studies was sourced from annual reports and annual financial statements and then, analyzed through descriptive statistics and regression analysis. From the study, majority of the reviewed firms had outside dominated boards with a higher occurrence of non-executive directors being twice as much as in the case of inside dominated boards. Also, when engaging the Tobin’s Q, board size and board composition were reported to positively impact firm performance; indeed, the proportion of outside directors was a significant variable and prerequisite.

Research Methodology

The main objective of this study is to establish the relationship between the board independence and financial performance for the listed 34 manufacturing companies in Nigeria. The study covered a period of ten years from 2006 to 2015. The ten year period was chosen primarily to cover the pre and post 2008 financial crises and the economic recession that followed. There are only 74 listed manufacturing companies on the Nigeria stock exchange. Therefore, 34 companies were purposefully selected making a sample size of 45%.

To undertake a survey research on the relationship between board independence and financial performance, a structured questionnaire that drew largely from the SEC code of corporate governance was administered to the Managing Director, Company Secretary, Marketing manager, Operations Manager and Production Manager of 34 listed manufacturing Companies. This approach was perceived necessary due to the inherent ambiguity observed in the previous research instruments (questionnaires) generally and low level of research efforts on this crucial topic. It also allowed the acquisition of relevant data on the topic through a series of logical questions independent of the opinions of the respondent institutions.

In addition to the survey data, time series data was collected from the audited financial statement of the listed manufacturing companies to measure the level of board independence in those selected companies. Similarly, to evaluate the financial performance, return on equity was computed. ROE, a measure of financial performance, is used to measure how a firm’s profitability is relative to their capital which is the efficiency of management in utilizing the company’s capital to generate earnings (Hanison & Hudalis, 2006). A company with high return on equity ratio is capable of generating a significant dividend for investors which is the ultimate aim of many investors (Mehrani, 1999).
Furthermore, data analysis was conducted using both descriptive and inferential statistics. In an attempt to determine the impact of board independence on financial performance in the listed Nigerian manufacturing companies using the descriptive statistics, 5-Likert scale approach was used in the questionnaire. The higher the score, the greater the strength of the respondent’s agreement with the level of board independence in their respective companies. The descriptive statistics of the time series data was also presented using mean, median, maximum, minimum and standard deviation. Inferential statistics includes the correlation analysis and regression analysis which enables the study to relate the board independence to the financial performance of the listed manufacturing companies. The Univariate regression model defining the linear relationship between the board independence and financial performance has been stated as follows:

\[ \text{ROE} = \beta_0 + \beta_1 \text{BI}_t \]

Where:
- ROE = Return on Equity in time t
- BI = Board Independence in time t
- \( \beta_0 \) = Represents the Constant
- \( \varepsilon_t \) = is the error term assumed to be normally distributed with zero mean and constant variance.
- \( \beta_1 \) = Represents the Coefficient of the Independent Variables

**RESULTS AND DISCUSSION**

The main objective of this study was to examine the impact of board independence on the financial performance of listed manufacturing companies in Nigeria. The study adopted the use of both descriptive and inferential statistics in ascertaining this relationship. The descriptive statistics adopted includes frequencies, percentages, mean and standard deviation while inferential statistics included correlation and regression analysis.

**Descriptive Statistics for Board Independence**

In this section, data collected using questionnaires are classified and analyzed. The presentation of responses in the questionnaire was done based on the objectives of the study. The tables are presented using frequency and percentage, with the Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree to express frequency of each fact. The mean (M) and the standard deviation (SD) of each statement were also computed. The study sought to find if the companies had enough non executive directors. The findings show that 40.3% of the respondents agreed, while 37.7% strongly agreed. The respondents who disagreed and strongly disagreed with the statement were 8.2% and 7.5% respectively. The statement had a mean of 3.92 and a standard deviation of 1.20. This finding imply that majority of the respondents agreed.

On whether having many executive directors makes the firms more profitable, 47.2% of the respondents strongly agreed while 37.1% of the respondents agreed. The proportion of the respondents who disagreed and strongly disagreed with this statement was 3.1% and 5.7% respectively. The results further indicate that the statements had a mean of 4.17 and standard deviation of 1.07 which indicated that majority of the respondents agreed and that the responses had a small variation from the mean. The study further sought to find out if the firms depend on directors for decision and for long run survival of the company. The findings indicate that 43.4% of the respondents agreed while 35.7% of the respondents strongly agreed. Those who disagreed and strongly disagreed were 6.9% and 7.5% respectively. The
results further indicate that the statements had a mean of 3.93 and standard deviation of 1.18 which indicated that majority of the respondents agreed and that the responses had a small variation from the mean.

The study aimed to establish if the presence of the executive directors in the day to day activities of the company largely contribute to the financial performance of the company. The result of the study showed that 45.3% and 35.2% strongly agreed and agreed respectively with the statement while 5.7% and 5.7% disagreed and strongly disagreed with the statement respectively. The results further indicate that the statements had a mean of 4.09 which indicated that majority of the respondents agreed and that the responses had a small variation from the mean.

On whether non-executive directors’ collection of remunerations for their services motivated them to give their best to the company, 40.9% and 39.6% of the respondents strongly agreed and agreed respectively. The percentages of the respondents who disagreed and strongly disagreed with the statement were 5.0% and 6.9% respectively. Finally, the study sought to establish whether having a larger number of independent directors among the non-executive directors can tremendously enhance the company’s financial performance. The results revealed that 43.4% of the respondents agreed while 38.4% strongly agreed. On the other hand 7.5% of the respondents disagreed while 4.4% strongly disagreed with the statement. The results further indicate that the statement had a mean 4.04 and standard deviation of 1.07 which imply that majority of the respondents agreed and their responses varied slightly from the mean.

These findings imply that the respondents felt that board independence was an essential component that influences the financial performance of manufacturing companies in Nigeria. The results specifically imply that the presence of both executive directors and non executive directors in the companies affected the financial performance of the companies. The findings of this study contradict with Bhagat and Black (2002) who investigated the empirical validity of the requirement for board independence and its influence on firm performance. The study reported that the firms that hired a higher proportion of outside directors showed significantly lower financial performance, after evaluating their Return on Equity (ROE) over the review period. Likewise, Peng (2004) evaluated the association between the board composition and firm performance of Chinese firms. It was reported that a growing number of independent directors in the board did not have any influence on either the ROE or sales growth. Nonetheless, it was observed that by increasing the number of more affiliated outside directors resulted in higher subsequent sales growth.
Table 4.1: Descriptive Statistics for Board Independence

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>This firms has enough executive directors</td>
<td>7.5%</td>
<td>8.2%</td>
<td>6.3%</td>
<td>40.3%</td>
<td>37.7%</td>
<td>3.92</td>
<td>1.20</td>
</tr>
<tr>
<td>Having many executive directors makes this firms more profitable</td>
<td>5.7%</td>
<td>3.1%</td>
<td>6.9%</td>
<td>37.1%</td>
<td>47.2%</td>
<td>4.17</td>
<td>1.07</td>
</tr>
<tr>
<td>The firm depends on directors for decision and for long run survival of the company</td>
<td>7.5%</td>
<td>6.9%</td>
<td>6.3%</td>
<td>43.4%</td>
<td>35.8%</td>
<td>3.93</td>
<td>1.18</td>
</tr>
<tr>
<td>The presence of the executive directors in the day to day activities of the company largely contribute to the financial performance of the company</td>
<td>5.7%</td>
<td>5.7%</td>
<td>8.2%</td>
<td>35.2%</td>
<td>45.3%</td>
<td>4.09</td>
<td>1.13</td>
</tr>
<tr>
<td>The fact that the non-executive directors collect remunerations for their services motivates them to give their best to the company.</td>
<td>6.9%</td>
<td>5.0%</td>
<td>7.5%</td>
<td>39.6%</td>
<td>40.9%</td>
<td>4.03</td>
<td>1.15</td>
</tr>
<tr>
<td>Having a larger number of independent directors among the non-executive directors can tremendously enhance the company’s financial performance</td>
<td>4.4%</td>
<td>7.5%</td>
<td>6.3%</td>
<td>43.4%</td>
<td>38.4%</td>
<td>4.04</td>
<td>1.07</td>
</tr>
</tbody>
</table>

Trend Analysis for Board Independence

The study conducted a trend analysis for the manufacturing companies surveyed. Board independence was computed by getting a ratio of non-executive directors in the board and that of the executive directors. The findings indicate that board independence of the manufacturing companies in Nigeria has been increasing from 2005 to 2014. These findings imply that the manufacturing companies have been increasing the number of non-executive directors in their board of directors which is perceived as a mechanism for higher board independence.

Similarly, Nowak and McCabe (2008) have studied the roles of the independent directors in Australian public listed companies by interviewing 30 directors. The participating directors agreed that a majority of non-executive directors on the board would provide a safeguard for a balance of power or management relationship. Besides that, there was a distinction between the boards with independent non-executive directors and non-independent directors. Independent directors would provide a variety of independent thinking, and majority of them could reduce the dangers of group think.
Pearson correlation is a measure of the linear correlation between two variables X and Y, giving a value between +1 and −1 inclusive, where 1 is total positive correlation, 0 is no correlation, and −1 is total negative correlation. The correlation was conducted to test the strength of the association between board independence and financial performance measured by return on equity (ROE). The findings indicate there exist a strong and significant association between board independence and financial performance (r=0.526, p=0.026).

The findings of this study are consistent with Ameer, Ramli and Zakaria (2009) who have studied the association between the board composition and firm’s performance of the 277 non-financial listed Malaysian Companies. They found out that over the period of 2002 to 2007, companies with high representation of outside and foreign directors on the board had a better performance. On the other hand, a study by Ararat, Orbay and Yurtoglu (2010) on the board independence in controlled firms in Turkey found three main important findings. The first finding indicated there was no significant effect of board independence on equity shares. Besides, the independent directors in Turkey were less efficient in restraining related party transactions. Also, they found that there was a negative relationship and a non-relationship of independent directors and firm’s performance.

Table 4.2: Correlation Results for Board Independence and ROE

<table>
<thead>
<tr>
<th>ROE</th>
<th>Board Independence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.026</td>
</tr>
<tr>
<td>N</td>
<td>350</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.526</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.026</td>
</tr>
<tr>
<td>N</td>
<td>350</td>
</tr>
</tbody>
</table>

Univariate Regression Result for Board Independence and ROE

To further investigate the nature of relationship between board independence and financial performance, the study employed a linear regression analysis. According to Kothari (2014),
regression is the determination of a statistical relationship between two or more variables. In simple regression, there are two variables, one variable (defined as independent) is the cause of the behavior of another one (defined as dependent variable). When there are two or more than two independent variables, the analysis concerning relationship is known as multiple regression and the equation describing such relationship as the multiple regression equation. Kothari (2014) describes ANOVA as a procedure for testing the difference among different groups of data for homogeneity. The essence of ANOVA is that the total amount of variation in a set of data is broken down into two types, that amount which can be attributed to chance and that amount which can be attributed to specified causes. Furthermore, F-test is also used in the context of analysis of variance (ANOVA) for judging the significance of multiple correlation coefficients.

The results show a strong positive relationship where R = 0.526 which indicates a strong positive relationship between board independence and Return on equity. $R^2 = 0.170$ also indicates that 17.0% of variation in the Return on equity can be explained by board independence, while the remaining 83.0% is explained by other variables not captured in this study.

Table 4.3: Model Summary for Board Independence and ROE

<table>
<thead>
<tr>
<th>Model Summary</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>0.526</td>
</tr>
<tr>
<td>R Square</td>
<td>0.17</td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>0.14</td>
</tr>
<tr>
<td>Std. Error of the Estimate</td>
<td>3.887492</td>
</tr>
</tbody>
</table>

a Predictors: (Constant), Independence Directors

F-test was carried out to test the null hypothesis that there is no significant impact of board independence on the financial performance of listed manufacturing companies in Nigeria. The results of ANOVA test show that the F value is 65.84 with a significance of p value = 0.016 which is less than 0.05, meaning that null hypothesis is rejected and conclude that there is a relationship between board independence and financial performance of listed manufacturing companies in Nigeria.

Table 4.4: ANOVA for Board Independence and ROE

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>15.443</td>
<td>1</td>
<td>15.443</td>
<td>65.84</td>
<td>.016*</td>
</tr>
<tr>
<td>Residual</td>
<td>1014.627</td>
<td>349</td>
<td>2.907</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1030.070</td>
<td>350</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: ROE
b. Predictors: (Constant), Independence Directors

To test the significance of regression relationship between board independence and financial performance, the regression coefficients ($\beta$), the intercept ($\alpha$), and the significance of all coefficients in the model were subjected to the t-test to test the null hypothesis that the coefficient is zero. The null hypothesis state that, $\beta$ (beta) = 0, meaning there is no significant relationship between board independence and the financial performance of Manufacturing Companies in Nigerian as the slope $\beta$ (beta) = 0 (no relationship between the two variables). The results on the beta coefficient of the resulting model shows that the constant $\alpha = 1.317$ is significantly different from 0, since the p-value = 0.000 is less than 0.05. The coefficient $\beta =$
0.193 is also significantly different from 0 with a p-value=0.016 which is less than 0.05. The result implies that a unit change in board independence will result in 0.193 unit change in financial performance. This confirms that there is a significant positive linear relationship between board independence and financial performance of listed manufacturing companies in Nigeria.

The finding of this study contradicts with Bhagat and Black (2002) who investigated the empirical validity of the requirement for board independence and its influence on firm performance. The study reported that the firms that hired a higher proportion of outside directors showed significantly lower financial performance, after evaluating their Return on Equity (ROE) over the review period. Likewise, Peng (2004) evaluated the association between the board composition and firm performance of Chinese firms. Peng (2204) reported that a growing number of independent directors in the board did not have any influence on either the ROE or sales growth. Nonetheless, Peng observed that by increasing the number of more affiliated outside directors resulted in higher subsequent sales growth.

### Table 4.7: Coefficient for Board Independence and ROE

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>1.317</td>
<td>0.241</td>
<td>5.455</td>
<td>0.000</td>
</tr>
<tr>
<td>Board Independence</td>
<td>0.193</td>
<td>0.08</td>
<td>2.417</td>
<td>0.016</td>
</tr>
</tbody>
</table>

a Dependent Variable: ROE

CONCLUSION AND RECOMMENDATIONS

The main objective of this study was to examine the impact of board independence on the financial performance of listed manufacturing companies in Nigeria. The study adopted the use of both descriptive and inferential statistics in ascertaining this relationship. The descriptive statistics adopted included, frequencies, percentages, mean and standard deviation while inferential statistics included correlation and regression analysis. The descriptive results of this study revealed that the respondents felt that board independence was an essential component that influences the financial performance of manufacturing companies in Nigeria. The results specifically imply that the presence of both executive directors and non-executive directors in the companies affected the financial performance of the companies.

The correlation results further indicated that there existed a strong and significant association between board independence and financial performance (r=0.526, p=0.026). The results of ANOVA test showed that the F value is 65.84 with a significance of p value = 0.016 which was less than 0.05, meaning that null hypothesis is rejected and conclude that there is a relationship between board independence and financial performance of listed manufacturing companies in Nigeria. Furthermore, the coefficient $\beta = 0.193$ was also significantly different from 0 with a p-value=0.016 which was less than 0.05. The result implies that a unit change in board independence will result in 0.193 unit change in financial performance. This confirms that there is a significant positive linear relationship between board independence and financial performance of listed manufacturing companies in Nigeria. The study recommends that manufacturing companies and all other companies should have an all inclusive board of directors. The board that is all inclusive is effective in exercising its mandate which is likely to impact positively on the firm financial performance.
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