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Evaluation of the Moderating Effect of Corporate Board on Corporate Performance and Directors Tunneling in Listed Pharmaceutical Organisations in Nigeria

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Abstract:

This study evaluates the moderating effect of corporate board on corporate performance and directors tunneling in listed pharmaceutical organizations in Nigeria. The study used panel data collected from annual financial report of listed pharmaceutical organizations in Nigeria between 2015 and 2019. Board independence, board effectiveness, board expertise, firm performance, and directors tunneling were used as variables. The study adopted the ex-post-facto research design and the data collected were analysed using regression analysis, however some preliminary analysis like descriptive statistics, correlation analysis was carried out. The study finds that moderating role of corporate performance on board independence has negative and significant effect on director's tunneling. The moderating role of corporate performance on board effectiveness has negative insignificant effect on director's tunneling. The moderating role of corporate performance on board members expertise has insignificant effect on corporate tunneling. This reveals the extent the effect of corporate board attributes on tunneling activities among pharmaceutical organizations can be moderated by the level of performance. The study recommends that policy maker among pharmaceutical organizations should pay close attention to the performance of their organizations when formulating policy that will be geared toward enhancing board monitoring and control role toward reducing the possibility of corporate tunneling.

Keywords: Tunneling, Board Effectiveness, Corporate Performance, Board Members Expertise, Board Independence, firm performance

1. Introduction

The recent wave of high level of corporate failure occasioned by top management manipulations and fraud has cast doubt on the effectiveness of corporate governance and its ability to curb executive excesses. This has led government and stakeholders to advocated for corporate governance guidelines that will ensure enhance board effectiveness transparency and better disclosure which can promote fairness and mitigate the effect of conflicts of interest between stakeholders.

The corporate board still remains the main internal control mechanism through which shareholders can control managers activities to ensure is in line with their interest (Shleifer & Vishny, 1988). The board of director is therefore, an important internal control mechanism that ensures CEO fulfills their fiduciary duty to owners. It has been argued that, although the Board has a fiduciary duty to protect owners' interests, if they do not have a financial interest in the firm and have little to gain from the firm performance, they tend to relax in carrying out their monitoring and overseeing role, thereby giving the managers the free hand to operate. Hence, most companies have different incentive attributes for executive and non-executive Directors in the board. However, it is believed that the non-executive directors can curb any tendency from executive directors to be overly concerned with profitability to the detriment of the owners.

Tunneling is the transfer of company resources for personal use through legal and illegal means (Odesa, 2018). This may come in two ways: a controlling shareholder can transfer resources from the firm for his own benefit through self-dealings transaction and inter firm loan. Such transaction includes; assets sales and contracts such as transfer pricing advantageous to the controlling shareholder, excessive executive compensation, loan guarantees, expropriation of corporate opportunities. Second; the controlling shareholder can increase his share in the firm without transferring any assets through dilutive share issues, right issue, minority freeze out, insider trading, creeping acquisition or other financial transactions that lock out the minority shareholder.

In most firms, the Directors do have incentive for a good performance in any reporting year. In a performing firm the shareholders may tends to focus on the performance with less attention on the managers opportunistic behavior than in firm with low or poor performance, thereby giving the manager the privilege to tunnel the firm. However, the extents to which the board moderates the relationship between the corporate performance and director's tunneling remain an area which much research have not been carried out recently.

The main objective of this study is to evaluate the moderating effect of corporate board on corporate performance and directors tunneling of listed pharmaceutical organizations in Nigeria.

The findings of this study highlight the various ways in which director's tunnel firm resource especially among high performing firms and how the tunneling activities can impact on the wealth maximization objective of the firm. Academia: The literature emanating from this study can also of great importance for future research and researcher. Hence the findings of this study can be of importance to managers, stock holders, academia, policy makers etc. This paper is structured into four sections.

Following the introduction, section two: reviews related literature. Section three: the methodology. Section four: data analyses, conclusion and recommendations.

2. Review of Related Literature

2.1. Conceptual Framework

2.1.1. Tunneling

According to Odesa (2018) tunneling is a word used in describing the transfer of asset and profits out of firms for the benefit of those who control them. Tunneling it can take the form of controlling shareholder simply transfer resources from the firm for his own benefit through self-dealing, dilutive share issues, minority freeze-outs, insider trading, creeping acquisitions, or other financial transactions that discriminate against minorities.

2.2. Theoretical Framework

Agency Theory: One of the theoretical principles underlining the relationship between the shareholder (principal and the director (agent) is the agency theory developed by Jensen and Meckling in 1976. The proponent of the theory (agency) believes that investors have surplus funds to invest but due to technical constraints such as inadequate capital and managerial expertise to manage the funds, employ the services of managers to invest their funds in profitable ventures in other to generate good returns and the managers rewarded for their services.

This theory is related to this study as it exploits the relationship between the agent and the principal, the problem and the possible solution of the problem. The director is the agent of the shareholder but have different agenda from that of the principals this often result in tunneling of the principal resources through various means like pay and compensations, expropriation of assets etc. this may affect the level corporate performance and the choice of investment. The principal in a bid to alien the agent interest to his introduce some compensation mechanism like bonus, equity and welfare packages, which increase the total cost for the firm.

The relationship between each of the dependent variables is depicted below

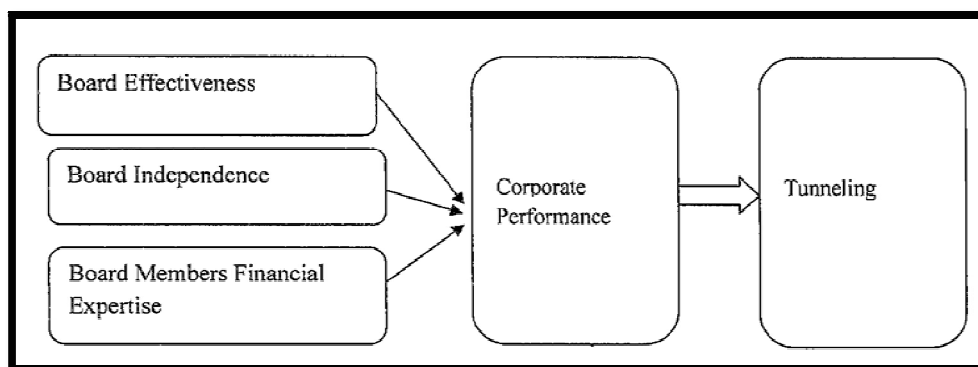


Figure 1

The diagram above shows the relationship between each of the board attributes variables, corporate performance and the tunneling. The relationship is explained low:

2.3. Firm Performance and Tunneling

Director's tunneling is the transfer of company resources out of its shareholder by the board of director members. This can be done in two ways: a controlling shareholder can transfer resources using the chief executive officers (which she is instrumental in appointing) from the firm for his own benefit through self-dealings transaction. Such transaction includes assets sales and contracts such as transfer pricing advantageous to the controlling shareholder, excessive executive compensation, loan guarantees, expropriation of corporate opportunities. Second; the controlling shareholder can increase his share in the firm without transferring any assets through dilutive share issues, right issue, minority freeze out insider trading, creeping acquisition or other financial transactions that discriminate the minority shareholder.

In high performing firms, stakeholders most often focus on the return and forget the process that produce the return, this give the executive director the needed opportunity to carry out it tunneling plans. Furthermore, chief executive officers can use their influence to help board members attain additional benefit. Thus, the directors have incentives to act on behalf of the chief executive officers. This give and take relationship between the board members is at the expense of the achievement of the owner's wealth maximization goals.

2.4. Board Members Financial Expertise and Tunneling

According to Guner, Malmendier and Tate (2008), the financial expertise on boards member can positively impact on the board monitoring capacity. Board having members who have financial knowledge, experience or financial exposure can enhance their understanding of the system and increase their ability to monitor the executive director and promote transparency in reporting. In the drive toward the maximization of shareholders value, reported that the board provides two major key functions; Firstly, the monitoring and control of principal and agent incentive conflicts; secondly, providing advice to the executive director and other non-executive directors on how to maximize firm value.

Siti and Nazhi (2011) believe that the presence of an expert on the corporate board may ensure quality reporting of a firm. Hence, board member especially those with financial experts, will tend to perform an important monitoring function that will ensure the quality of financial reporting and corporate accountability, corporate board independence and corporate board financial expertise.

According to Vo and Phan, (2013) those members with financial expertise can leads to the organization achieving a better performance with increased experience.

2.5. Board effectiveness and Tunneling

In the context of emerging markets, Gunarsih (2002), in her study, found that large domestic institutional investors tended to represent their own interests, while Khanna and Palepu(2000) found that board effectiveness provided better monitoring functions when interacting with the emerging markets in the global economy comparatively to board attribute. Khanna and Palepu (2000) also found that corporate performance was positively related to board attribute and was negatively related to board attribute.

In a company with a concentrated board attribute, the controlling shareholder could control the company's resources and implement policies that benefit them at the expense of the non- controlling shareholders (La Porta et al. 2000). Shleifer and Vishny (1997) suggested that controlling shareholders were more interested in using their control to obtain private benefits. Consequently, they may prevent organizations director from engaging in opportunistic behaviors like tunneling. Empirically, Shan (2013) found a negative relationship between board effectiveness and tunneling. Lam et al. (2012) also showed that board effectiveness decreases asset appropriation. Accordingly, we expect a negative relationship between board effectiveness and tunneling.

2.6. Board Independence and Tunneling

The independence of the board is considered important in discharging their monitoring responsibilities as the non-executive directors are expected to have positive behavioural motivations to prevent expropriation of minority shareholders (Shan 2013). In addition, independent directors on the board are expected to reduce inefficiencies (Liu 2015) and promote better governance practices in areas including related party transactions (Shan 2013). Despite these theoretical arguments, both a negative (Shan 2013) and a positive (Liu 2015) association between board independence and tunneling has been reported by literature. Accordingly, we do not make an a priori assessment of the relationship between board independence and tunneling. Among various corporate government mechanisms, the independent director policy is aimed at monitoring controlling shareholders and protecting investors' interests. Independent directors have powers to prevent tunneling behavior by controlling shareholders. However, evidence on their success in fulfilling this role is mixed. The study of Gao (2006), and Huang and Pan (2010) find that independent directors have no effect on tunneling behavior by controlling shareholders, whereas Tang (2005) and Ye (2007) find that they have a positive effect. The proportion of independent directors can increase their monitoring role and reduce the tunneling.

3. Methodology

3.1. Research Design

The study used panel data and was based on ex-post facto research design. The panel data were collected from the published financial report of all quoted pharmaceutical firms in the Nigeria Stock Exchange between 2015 and 2019 financial years. In analysing the data, the study adopted multiple regressions, however, some preliminary analysis such as descriptive statistics and correlation analysis.

3.2 Operationalization of Variable Description

The study used a panel data collected from the quoted pharmaceutical companies in Nigeria within the period covering 2015 2019. The study proxy tunneling using the intercompany loan value of allowances. This is the items disclose by organizations in Nigeria. The variables were operationalized as follow.

| Variable | Measures/Proxy | Authors |
|------------------------------------|--|---|
| Dependent variable | | |
| Tunneling (TUNNEL) | Log of intercompany loan | Odesa (2018) |
| Independent variables | | |
| Board of independence (BODCOM) | Proportion of non-executive director to the total number of members in the board. | Christopher (2009) |
| Firm performance | Return on assets (RCA): Earnings after tax/ Total assets | Allam Adel and Sameh (2013) |
| Board effectiveness (BODEFF) | Number of board meeting held within the periods. | Richard (2014) |
| Board financial expertise (BODEXP) | Proportion of board members with accounting, financial knowledge or experience to the total number of board members. | Allam Adel and Sameh (2013) Christopher (2009) |

Table 1: Operationalization of Variable Description

3.3. Model Specification

The model for the study is premised on the main objective and anchored on the specific. The model used was adopted from the work of Mohammed, Nur, Fares, Nur, and Mohamad (2018). The model will be modified to suit our objective as follow

$$TUNNEL = f(BODEFF*ROA, BODIN*ROA, BODEXP*ROA).....2$$

Equation I is the linear regression model used in testing the null hypotheses.

Where: ROA Return on assets; TUNNEL Tunneling; BODEFF = Audit composition;

BODIN = Audit committee independence; BODEXP = Audit committee financial expertise.

4. Data Presentation, Analysis and Interpretation

This study used panel data and adopted the 'panel regressions analysis to identify the possible effects of firm characteristics on the liquidity management of quoted pharmaceutical companies in Nigeria. The study conducted some preliminary analysis such as descriptive statistics and correction analysis to ascertain the normality of the data and check for the presence of multi-collinearity.

4.1. Descriptive Statistics

The descriptive statistics result shows the mean (average) for each of the variables, their maximum values, minimum values, standard deviation and the Jarque-Bera (JB) statistics (normality test). Table 2 below, is the descriptive statistics result of the data covering the period of ten years (2015 2019) of the quoted companies in used for the study.

| | TUNNEL | BODEXP | BODIN | ROA | BODEFF |
|--------------|-----------|----------|-----------|-----------|----------|
| Mean | 6.544667 | 0.456889 | 0.441111 | 0.593778 | 4.422222 |
| Median | 7.580000 | 0.400000 | 0.500000 | 0.590000 | 4.000000 |
| Maximum | 11.850000 | 0.750000 | 0.500000 | 0.830000 | 6.000000 |
| Minimum | 0.880000 | 0.250000 | 0.330000 | 0.270000 | 3.000000 |
| Std. Dev. | 3.234979 | 0.139199 | 0.068165 | 0.144494 | 0.621175 |
| Skewness | -0.615336 | 0.857795 | -0.375650 | -0.081998 | 0.585679 |
| Kurtosis | 2.275335 | 3.038392 | 1.369397 | 2.226840 | 2.981024 |
| Jarque-Bera | 3.824428 | 5.521360 | 6.043721 | 1.171259 | 9.573322 |
| Probability | 0.147753 | 0.063249 | 0.048711 | 0.556755 | 0.002769 |
| Sum | 294.5100 | 20.56000 | 19.85000 | 26.72000 | 199.0000 |
| Sum Sq. Dev. | 460.4639 | 0.852564 | 0.204444 | 0.918658 | 16.97778 |
| Observations | 45 | 45 | 45 | 45 | 45 |

Table 2: Descriptive Statistics Result

Source: Researcher's (2020)

The study observed from the descriptive statistics result that some organizations have higher level of tunneling activities than others. The study observed that all the organizations have activities tunneling however, the value of tunneling differs greatly among the organizations. The Board independence shows the proportion of the members of the board director which are non-executive director to the total number of the director in the board. The result shows that on the average, 44% of the board members are non-executive directors. The study also observed that some firm maintain 44% of the board members are non-executive directors, this reveals the extent of independence of the board. in carrying

out their overseeing and control function. The result of the board effectiveness shows that most of the board held the required number of meeting in within the accounting period. The corporate governance rule advice all board to meet between 4- 6 time every year except. The board effectiveness result shows that on the average, each member attends meeting above four times in a year. The study observed that on the average, board of pharmaceutical organizations maintains about 46% of members who have financial and financial related experience. Some maintain as high as 75% members with financial and financial related knowledge or experience. This can reflect the extent to which the firm can evaluate the decision of the executive director in terms of their cost and benefit to the firm.

Lastly, in checking the normality of the data using the Jarque-Bera (JB), shows that tunneling, board member experience, board independence, board effectiveness is normally distributed and. the distribution is significance at 1% and 10% level. The result means that all the explanatory variables are normally distributed, hence no presence of outlier.

In examining the relationship among the variables, the study employed the Pearson correlation analysis, the results are presented in table 4.2

| | <i>TUNNEL</i> | <i>BODEFF</i> | <i>BODEXP</i> | <i>BODIN</i> | <i>ROA</i> |
|---------------|---------------|---------------|---------------|--------------|------------|
| <i>TUNNEL</i> | 1.000000 | | | | |
| <i>BODEFF</i> | -0.121906 | 1.000000 | | | |
| <i>BODEXP</i> | 0.203808 | -0.005490 | 1.000000 | | |
| <i>BODIN</i> | -0.021132 | -0.242134 | -0.047053 | 1.000000 | |
| <i>ROA</i> | 0.163810 | -0.162505 | -0.211155 | 0.215082 | 1.000000 |

Table 3: Correlation Analysis
Source: Researchers Summary (2019)

The finding from the correlation analysis table, shows that tunneling has negative association (-0.12) with board effectiveness. This shows that the more effective the board is, the lower the level of tunneling activities among pharmaceutical firm. The result also shows that tunneling has strong positive association (0.20) with board members financial expertise/ experience, this reveals that the more board members are financially knowledgeable, the higher the level of tunneling activities among pharmaceutical organizations. The result also reveals that tunneling has negative association (0.02) with board independence. Thus, a well composed board with more independent director will be able to reduce the level of tunneling activities among pharmaceutical. The study observed from the result that no two variables is perfectly associated (having above 75% association level). This indicates the absence of multicollinearity problem in the model used for the analysis, this shows that the ordinary least square can be used to capture the relationship between the explanatory and response variable.

4.2. Hausman Effect Test

The summary result of multiple regression analysis is presented below. However, the study takes into cognizance the heterogeneity nature of the pharmaceutical organizations data, hence the need for testing its effect on the data. The study therefore used Hausman effect test to select between fixed and random effect that is best to be adopted in the study. Below is the summary of the Hausman test result, details of the result are presented in table 4 under the appendix.

| Correlated Random Effects - Hausman Test | | | | |
|--|-------------------|--------------|------------|--------|
| Equation: Untitled | | | | |
| Test cross-section random effects | | | | |
| Test Summary | Chi-Sq. Statistic | Chi-Sq. d.f. | Prob. | |
| Cross-section random | 1.979966 | 4 | 0.7394 | |
| Cross-section random effects test comparisons: | | | | |
| Variable | Fixed | Random | Var(Diff.) | Prob. |
| BODEXP | 0.080838 | 0.203041 | 0.105148 | 0.7063 |
| BODEFF | -4.226563 | -1.094783 | 21.388774 | 0.4983 |
| BODCOM | 2.139184 | -0.493916 | 4.184442 | 0.1980 |

Table 4: Hausman Effect Test
Source: Researcher Summary of Regression Analysis Result Using E-View 8

The Hausman test result shows a chi-square value of 1.98 and probability value 0.739, the chi-square probability value is above 0. Based on the result, study accepts the random effect and rejects the fixed effect, hence we use the random effect to correct the problem of heterogeneity in the data used for the study and the random effect regression result is presented below. Table 4.4 below is the summary of the regression result adjusted for fixed effect (details of the result are presented in table 4 under the appendix).

| Regression Analysis | | | | |
|---|-------------|--------------------|-------------|--------|
| Dependent Variable: TUNNEL | | | | |
| Method: Panel EGLS (Cross-section random effects) | | | | |
| Date: 09/09/20 Time: 01:35 | | | | |
| Sample: 2015 2019 | | | | |
| Periods included: 5 | | | | |
| Cross-sections included: 9 | | | | |
| Total panel (balanced) observations: 45 | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 7.935044 | 8.372426 | 0.947759 | 0.3488 |
| BODIFF*ROA | -0.611860 | 0.686288 | -0.891551 | 0.3778 |
| BODIN*ROA | -1.900059 | 0.999431 | -1.901140 | 0.0548 |
| BODEXP*ROA | 4.713492 | 6.927600 | 0.680393 | 0.5001 |
| Weighted Statistics | | | | |
| R-squared | 0.381541 | Mean dependent var | 2.391244 | |
| Adjusted R-squared | 0.339322 | S.D. dependent var | 2.356430 | |
| S.E. of regression | 2.402313 | Sum squared resid | 236.6154 | |
| F-statistic | 21.45098 | Durbin-Watson stat | 1.764994 | |
| Prob(F-statistic) | 0.000622 | | | |

Table 5: Regression Analysis

Source: Researcher Summary of Regression Analysis from E-View 8

4.3. Interpretation of Regression Analysis Result

In table 4.4 above, the study observed from the result the R. squared value of 0.47 (47%) and R-squared (dj) 0.403 (40%), this indicates that the moderating role of firm performance on corporate board variables used jointly explain about 4.0% of the variation in tunneling of the sampled pharmaceutical organizations. Thus about 40% of the tunneling activities of pharmaceutical organizations can be attributable to board attribute variables used in the study. The F-statistics value of 21.04 and its probability value of 0.000 shows that the model formulated is appropriate and statistically significant at 1% levels.

4.4. Discussion of Findings

The findings from the analysis result indicate that board attributes positively affect the level of tunneling in pharmaceutical organizations in Nigeria. The study also finds that firm performance has a significant moderating effect on the relationship that exists between corporate board and director tunneling. The findings in line with the specific objective of the study are:

- The study finds that the moderating role of corporate performance on board independence has negative significant effect on the level of tunneling activities among pharmaceutical organizations in Nigeria. The finding shows that in high performing firm with board independence can significantly reduce drive major changes in the level of tunneling activities among pharmaceutical organizations in Nigeria. I ugh performing Pharmaceutical firm with independence board can lower the level of tunneling than high performing pharmaceutical firm with low level of board independence.
- The moderating role of corporate performance on board effectiveness has negative insignificant effect on tunneling activities among pharmaceutical organizations. The result indicates that though the corporate performance on board effectiveness negatively affects the level of tunneling activities among pharmaceutical organizations, the effect of the moderating role of corporate performance on board effectiveness is not strong to drive a major change. This reveals that although corporate performance on board effectiveness negatively drives tunneling activities among pharmaceutical organizations, the extent is not statistically significant.
- The moderating role of corporate performance on board members expertise has no significant effect on tunneling activities of pharmaceutical organizations in Nigeria. Thus, board members expertise has insignificant effect on tunneling activities among pharmaceutical organizations in Nigeria.

4.5. Conclusion and Recommendations

The study finds that firm performance has positive moderating effect on the relationship that exists between corporate board and tunneling activities among pharmaceutical organizations in Nigeria. This reveals that the extent to which board attributes affect the tunneling activities among pharmaceutical organizations is highly moderated by the level of performance. Thus, the extent which corporate board can affect the tunneling activities depends on the performance of such firm. Boards of high performing organizations are likely to negatively affect the tunneling activities.

The study recommends that policy maker among pharmaceutical organizations should pay close attention to the performance of their organizations when formulating policy that will be geared toward enhancing board monitoring and control role toward reducing the possibility of corporate tunneling.

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