Effect of Director’s Tunneling on Assets Utilization: Evidence from Corporate Organizations in Nigeria

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Authors’ contributions

This work was carried out in collaboration among all authors. Author NIA designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Author OOOJ managed the analyses of the study. Author NNJ managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

This study evaluates the effect of director’s tunnelling on asset utilization of companies in consumer goods sector in Nigeria using a panel data collected from annual financial report of thirty listed consumer goods firm in Nigeria between 2011 and 2016. The study was based on ex-post-facto research design and the data collected were analysed using descriptive statistics, correlation analysis and multiple regression. The study finds that the director’s pay and equity holding varies widely among consumer goods firms. Chairman’s pay and director’s equity holding have a statistically significant effect on asset utilization at 5% level. While the director’s pay policy has no statistically significant effect on asset utilization. The finding shows pay, chairman’s pay and
director’s equity holding are three major avenues used for tunnelling as they have a significant effect on tunnelling. The study recommends that policymaker should formulate a policy that will reduce the tunnelling tendency of directors and board chairman.

Keywords: Director’s tunnelling; director’s pay; asset utilization; chairman’s pay and director’s equity holding.

1. INTRODUCTION

The competitive business environment has placed a greater responsibility on manager’s which require the use of professional skill, experience and discretion taking some decision especially those relating to operations of the firm. This privilege most times enhances the manager’s investment opportunity set which contributes to positively toward increasing the information asymmetry problems between executives and shareholders [1]. Elijah et al. [2] observed that in such an atmosphere, a greater degree of managerial discretion will be required and there is no assurance that the self-interested behaviour of directors will conform to the expectations of shareholders thereby reducing agency problems. In an attempt to reduce and ensure the conformity of executive interest to that of a shareholder, corporate governance and incentives package has been used as the alignment for both interest.

Asset utilization is a tool used in indentifying asset opportunity gap. It measures the difference between what an asset is capable of producing and what it actually produces. The opportunity gap if properly measured can be used as a metric for focusing reliability efforts or planning and performance enhancement. The non-directors and executive directors’ compensation are based on the performance of the firm. A director like the chief executive officer has an incentive for a good performance. Hence the maximum utilization of asset is of great importance to the management like another organizational goal due to its interest in performance-based incentives. According to Weisbach [3], executive directors have the incentive to keep their jobs and they can provide additional benefit to non executive directors in many different ways. This gives the non executive directors the incentives to act on behalf of the executive directors. This give and take the relationship between the executive directors and the non executive directors has made the director’s tunnelling come under increased public scrutiny especially in most developed countries. The performance of every organization depends on how effective and efficient they are able to utilize the assets available. directors compensation increases when the performance of the organization is high compared to when it is low especially when the company operates a fractional compensation (when director bonuses is a percentage of the profit). This compensation system encourages the executive director to work harder and it also aliens the interest of both the shareholder to that of the executive director. Such a system can reduce tunnelling tendencies [3].

Various studies have been carried out on the effect of director’s tunnelling on the performance of firms those studies include; [4,5,6,7,8,9,10,11] most of those studies were carried out in developed countries whose legal and business environment differs from developing nation like Nigeria and they evaluate the nexus between tunnelling and performance. There is a need to evaluate this relationship under the Nigeria context. Thus the main objective of the study is to evaluate the effect of director’s tunnelling on asset utilization of companies in the consumer goods sector of Nigeria. Its specific objectives include:

i. Ascertain the effect of Director’s pay on assets utilization of firms in Nigeria.
ii. Examine the effect of Chairman’s pay on assets utilization of firms in Nigeria.
iii. Determine the effect of Director’s Equity Holding on assets utilization of firms in Nigeria.

2. LITERATURE REVIEW

2.1 Conceptual Framework

The term tunnelling was coined originally to characterize the expropriation of minority shareholders in the Czech Republic to describe the transfer of assets and profits out of firms for the benefit of those who control them [12]. Director’s tunnelling is the transfer of company resources out of its shareholder reach for personal use and gain. This may come in two ways: A controlling shareholder can transfer resources using the executive director (which his appointment and continuation of the office can be
majorly determined by him) from the firm for his own benefit through insider dealings and transactions. Such transaction includes theft or fraud which is illegal, it can also use assets sales (below market value) and contracts such as transfer pricing advantageous to the controlling shareholder, excessive executive compensation, loan guarantees, expropriation of corporate opportunities. Secondly, 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.

The main conditions enabling such fraud are weak law against conflict of interest, non-existent legal liability of managers for leading their employer towards bankruptcy, and incompetence of financial authorities. In tunnelling assets, profits, or corporate opportunities, the controlling shareholder can expropriate minority shareholders through financial transactions, such as diluting their stakes through a closed subscription to new shares. Dwinanto [1] examine the effect of insider director on tunnelling activities using a cross-section of 395 firms listed in Indonesia stock exchange in 2009. The finding reveals that firms with a high level of insider director are highly prone to resource tunnelling than firms with lower insider director. Guohua et al. [4] examine tunnelling in China, using inter-corporate loans as a measure of tunnelling. The made use of selected listed firms in Shanghai stock exchange between 1996 and 2006. The data collected were analysed using panel regression approach. The finding reveals that the director’s incentives to tunnel firms resources diminish as controlling shareholder ownership increase.

2.2 Theoretical Literature

2.2.1 Director’s expropriation, tunneling, and shareholders of quoted firms

Expropriation is an action taken by controlling shareholders with the intention to benefit through either legal or illegal methods [13]. When the flow of benefits that are enjoyed by the controlling shareholders is clearly perceptible, it can be identified as moving in one of two directions: from the subsidiary to the parent company or from the parent company to its subsidiary. Johnson et al. [14] argue that the term of tunnelling refers to the expropriation activity conducted by the controlling shareholders of a company in the lower level (e.g., subsidiary) to the higher level (parent company). The term “propping” leads to the opposite condition in which the controlling shareholders drain either funds or resources from the parent company to a subsidiary.

The exploitation of minority shareholders by controlling shareholders has attracted the attention of researchers. For instance, [15] find that when the majority shareholders control the company, the agency problem is no longer about the conflict of interest between management and shareholders but about how to prevent controlling shareholders from exploiting minority shareholders. Tunnelling is not only detrimental to the interests of minority shareholders but also seriously precludes the development of the capital market [16,17].

2.2.2 Director’s tunneling and asset utilization

Asset utilization can be used as a tool used to identify the asset opportunity gap and it could be measured the difference between what an asset is capable of producing and what it actually produces. The director can approve the sales of asset which they underutilize to another company which the major shareholder has interest in. The underutilization of the asset is to show that the asset is absolute or not functioning properly. They also support the transfer pricing scheme which favours the other firm which the major shareholder has interest in. The diversion of resources using such scheme favour’s the majority shareholder at the expense of the minority shareholder and can be successfully done with the collaboration of the board of director which the majority shareholder control through its agent in the board. Tunnelling can be done through high compensation scheme to the board members. The resulting concerns have led to demands for greater transparency in executive stock option programs and, possibly, the elimination of the programs altogether. Since additional incentives are tied to performance, executive directors tries all within their reach to improve and increase their performance, this have direct impact on the level of asset utilization.

2.3 Theoretical Framework

2.3.1 The agency theory

This study is anchored on the agency theory as propounded by Jensen and Meckling [18]. The
agency theory mainly explains the relationship between the principal (shareholders) and the agent (Managers) of the principal and how it relates to the investment decisions of the firm. They postulated that due to a continuous devaluation of equity ownership of large corporations, ownership and control became more separated. This situation gives directors the opportunity to pursue their interest at the expense of that of the shareholders as this goes a long way in explaining the tunnelling decisions of directors and what they stand to gain.

2.3.2 Empirical review


In another related study carried out by Ridwan et al. [9] on the director’s tunnelling: using firms quoted in Indonesia stock exchange using 277 listed firms between 2005 and 2012. The study used board size, outsider’s directors, group ownership and big five ownership. The finding reveals that firms with family and state ownership experience more tunnelling activities than others. The study also finds that family, state and leverage ownership structure has a positive effect on tunnelling. A related study was carried out in the USA between 1992 and 1993 by Elijah et al. [2], abnormal accrual was used as a measure for the director’s tunnelling. The study finds that firm’s with majority independent director to minority independent director structure experience a large increase in abnormal accrual than other with minority independent director.

Kun and Xing [8] examine controlling shareholder tunnelling and executive compensation of 6,670 quoted firms from China between 1999 and 2005. The finding shows that if the director's incentives scheme are adopted, controlling shareholders who obtain private benefit from companies will have less incentive to do so. In another study by Chrisostomos and Aydin [19] on the impact of managerial entrenchment using firm quoted in UK stock exchange. The study finds a negative relationship between asset turnover ratio (an inverse proxy for agency cost) and managerial entrenchment. The finding also reveals that managerial incentives positively moderate managerial entrenchment and asset turnover.

3. METHODOLOGY

The study used longitudinal data and was based on ex-post-facto research design. The longitudinal data used were collected from the financial statement of quoted consumer goods firms in the Nigeria Stock Exchange between 2007 and 2016. The longitudinal data were collected from all the quoted consumer goods companies in Nigeria within the period of ten years. The variables and their proxy were operationalization of variables are follow.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Proxy/ Measurement</th>
<th>Authority’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent variable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mediating variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Director pay (DAY)</td>
<td>Director’s pay / Operating expenses</td>
<td>Thomas (2007) Kelvin et al. (2003)</td>
</tr>
<tr>
<td>Chairman pay (CHPAY)</td>
<td>Chairman pay / Staff cost</td>
<td>Imam and Dewi [21]</td>
</tr>
<tr>
<td>Director’s equity holding (DEQH)</td>
<td>Director’s equity holding/ Total equity</td>
<td>Kun and Xing [8]</td>
</tr>
<tr>
<td>Covariate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm performance</td>
<td>Return on Assets = net earnings / Total asset</td>
<td>Ifurueze et al. (2013)</td>
</tr>
<tr>
<td>Firm size (SIZE)</td>
<td>Log of total assets</td>
<td>Ifurueze et al. (2013)</td>
</tr>
</tbody>
</table>
Model Specification

The model for this study is premised on the main objective and was adopted from the work of [8] and modified to suit the variables used in this study.

The model for the study is anchored on the objective.

\[
\text{ASUT} = f(\text{DPAY, CHPAY, DEQH, ROA, SIZE})
\]

This can be econometrically express as

\[
\text{ASUT}_i = d_0 + d_1\text{DPAY}_i + d_2\text{CHPAY}_i + d_3\text{DEQH}_i + d_4\text{DIVP}_i + d_5\text{ROA}_i + d_6\text{SIZE}_i + \mu_i
\]

Equation 1 is the linear regression model used in testing the null hypotheses.

Where:

\[
\text{ASUT} = \text{Asset utilization; DPAY = Director's pay; CHPAY = Chairman Pay; DEQH = Director's equity holding; ROA = return on asset; SIZE = Firm size; } d_0 = \text{Constant; } d_1,... d_6 = \text{are the coefficient of the regression equation. } \mu = \text{Error term; } i = \text{is the cross section of firms used; } t = \text{is year (time series); } \log = \text{Logarithm.}
\]

3.1 Data Analysis and Discussion of Findings

In analyzing the data, the study adopted multiple regressions. However, some preliminary analysis such as descriptive statistics, correlation matrix and diagnostic test like normality test, multi-collinearity and autocorrelation test were done to ascertain the nature, characteristics and normality of the data used in the study. The variables for this study included firm financial performance metric like assets utilization (ASUT), as the response variable while the explanatory variables are the director’s pay, chairman pay, and director’s equity holding. Firm size and firm performance were used as covariate variable.

3.2 Descriptive Statistics

The descriptive statistics result shows the mean (average) for each of the variables, their maximum values, minimum values, standard deviation and the Ryan-joiner test (normality test). Descriptive Statistics Table 1.

3.3 Correlation Analysis

In examining the relationship between the variables, the study employed the Pearson correlation coefficient.
The use of a correlation matrix is to check for multi-collinearity and to explore the relationship between the explanatory variable and the dependent variable.

The findings from the correlation analysis table show that asset utilization has a negative relationship with the director’s pay, director’s shareholding, chairman’s pay, return on asset. But has a positive relationship with firm size. This shows that large firms have a high asset utilization ratio than smaller firms and the higher the director’s pay, director’s shareholding, chairman’s pay, the less the firm utilizes their assets. Director’s pay has a positive relationship with the chairman’s pay, director’s shareholding, firm’s size and returns on asset, this reveals the give and takes politics of the board. When the director’s pay increases, chairman pay tend to increase also, this increases the wealth of the director with which they increase their shareholding. Chairman’s pay has a strong positive relationship with director’s equity holding, return on asset and weak relationship with firm size. The strong relationship between the chairman’s pay and director’s equity holding shows the influence of director’s in fixing the chairman pay.

In checking for multi-collinearity the study noticed that no two explanatory variables were perfectly correlated. This indicates the absence of multi-collinearity problem in the model used for the analysis and justifies the use of the ordinary least square.

Table 1. Pearson correlation analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Max</th>
<th>Min</th>
<th>Std Dev</th>
<th>Ryan-Joiner (RJ)</th>
<th>RJ (P-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASUT</td>
<td>1.1142</td>
<td>2.3899</td>
<td>0.1224</td>
<td>0.4688</td>
<td>0.078</td>
<td>0.130</td>
</tr>
<tr>
<td>DPAY</td>
<td>0.1644</td>
<td>0.4909</td>
<td>0.0700</td>
<td>0.0673</td>
<td>0.896</td>
<td>0.010*</td>
</tr>
<tr>
<td>DEQH</td>
<td>0.3484</td>
<td>0.5600</td>
<td>0.1820</td>
<td>0.0783</td>
<td>0.983</td>
<td>0.017*</td>
</tr>
<tr>
<td>CHPAY</td>
<td>0.1325</td>
<td>0.1889</td>
<td>0.1000</td>
<td>0.1701</td>
<td>0.896</td>
<td>0.010*</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.3589</td>
<td>0.9570</td>
<td>0.1388</td>
<td>0.1812</td>
<td>0.898</td>
<td>0.001*</td>
</tr>
<tr>
<td>ROA</td>
<td>7.1065</td>
<td>8.1438</td>
<td>5.6314</td>
<td>0.6350</td>
<td>0.977</td>
<td>0.010*</td>
</tr>
</tbody>
</table>

No of cross section - 37

Source: Researcher’s (2017) summary of descriptive statistics from Minitab 16; Note: *1% level of significance 5% level of significance

Table 2. Summary of regression analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>ASUT</th>
<th>DPAY</th>
<th>DEQH</th>
<th>CHPAY</th>
<th>SIZE</th>
<th>ROA</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPAY</td>
<td>0.5459</td>
<td>2.5778</td>
<td>1.5959</td>
<td>0.439</td>
<td>2.47</td>
<td>0.020</td>
</tr>
<tr>
<td>T-value</td>
<td>0.78</td>
<td>0.014</td>
<td>-2.36</td>
<td>0.114</td>
<td>0.002</td>
<td>0.7146</td>
</tr>
<tr>
<td>P- value</td>
<td>59.5</td>
<td>54.2</td>
<td>3.71</td>
<td>1.7146</td>
<td>0.002</td>
<td></td>
</tr>
</tbody>
</table>

Source: Researchers summary of OLS regression Analysis from E-view 9.5
3.4 Regression Analysis

The above table report, the OLS regression result. The OLS result follows the assumption of homogeneity hence there is the absence of heteroscedasticity. In the table above, the study observed from the result the R. sq value of 59.50 and R-sq(adj) 54.2(54.2%) this indicates that all the independent variables jointly explain about 54.2% of the variation in asset utilization of the sampled firms. Hence about 54.2% of the asset utilization level of consumer goods firms can be attributable to the director’s tunnelling. The F-statistics value of 3.71 and its probability value of 0.002 shows that director’s tunnelling has an effect on asset utilization and the effect is statistically at 1% level. The Durbin Watson statistics result was 1.7146 can be approximated into two, this indicates the absence of autocorrelation in our model hence the model used is appropriate for the study.

1: Board of Director’s pay does not have a significant effect on the asset utilization of companies in the consumer goods sector in Nigeria. The analysis result showed a coefficient value of 0.5459, t-value of 0.78 and a P-value of 0.439. The coefficient value which reveals the degree of variation caused by the individual independent variable to the dependent shows a positive value of 0.5459, this reveals that directors pay positively influences the asset utilization of firms. The t-value of 0.78 shows that directors pay has a positive effect on the asset utilization of firms (though the effect is small). The probability value of 0.439 shows that the effect of directors pay on asset utilization of firms is not statistically significant.

2: Chairman’s pay does not have significant effects on the asset utilization of firm in the consumer goods sector in Nigeria. The result of the regression analysis of the effect of Chairman’s pay on asset utilization showed a coefficient value of 2.5778, t-value of 2.47 and a P-value of 0.014. The coefficient value of 2.5778 indicates that a 1 unit increase in chairman pay may lead to about 2.58% positive increase in the asset utilization of firm in Nigeria. The t-value of 2.47 reveals that the changes in chairman pay have a strong effect on the asset utilization of firms in Nigeria. The probability value of 0.014 reveals that the effect of chairman pay on the asset utilization of firms in Nigeria is statistically significant at 1% level.

3: Director’s equity holding has no significant effect on asset utilization of companies in the consumer goods sector in Nigeria. The analysis result showed a coefficient value of 1.5959, t-value of -2.36 and a P-value of 0.020. The coefficient value which reveals the degree of influence/variation caused by the Director’s equity holding to the dependent shows a positive value of 1.5959, this reveals that Director’s equity holding positively influence the asset utilization of consumer goods firms. The t-value of 2.36 (above absolute 2) reveals that the director’s shareholding has a positive effect on the asset utilization of firms in Nigeria. The probability value of 0.020 reveals that the effect of director’s shareholding on asset utilization is statistically significant.

3.5 Discussion of Finding

The analysis result shows that the director’s pay and director’s equity holding varies widely among consumer goods firms. The dividend policy of consumer goods firm also varies widely within the period under review. The result (correlation) shows that asset utilization is negatively related to the director’s pay, chairman pay and director’s equity holding, thus the higher the tunnelling the lower the asset utilization. The strong positive relationship between director’s pay and director’s equity reveals that director tunnel firms using pay and other incentives scheme. The regression analysis reveals that the chairman’s pay and director’s equity holding are statistically significant. Hence the director’s pay, chairman’s pay and director’s equity holding are three major avenues for director’s tunnelling. The more the director’s tunnel the firm’s resources the less they tend to be in their asset utilization.

The result also reveals that the director’s equity holding and board chairman pay has a positive influence and effect on asset utilization of consumer goods firms. This finding is in line with that several author [21,7], but contrary to that of Guohua et al. [4]. While director’s pay and dividend policy has an effect but the effect is not statistically significant on the asset utilization of consumer goods firms in Nigeria this finding is in line with the study of several author [5] and [19].

4. CONCLUSION

The result provides useful information insight for managers, shareholder and policymaker which can aid them in planning and formulating policy that can curtail the tunnelling activities of directors. A well-motivated employee can achieve much with little hence the welfare of the
director should be of most importance to shareholding but the give and take politics of the board has bred a moister on his wing tunnelling strive.

5. RECOMMENDATION

Based on the findings, the study recommends that relevant Regulatory agency should formulate a policy that increases and regulates director equity holding as this will reduce the incentive to tunnel. Also, the chairman (non-executive director) allowances should not be fixed by the executive directors rather it should be fixed by the entire shareholder during the annual general meeting to reduce the influence of the executive directors and the give and take politics of the board. Furthermore, a joint committee comprising of members of the board of director and selected shareholder be set up to review the proposed non-executive directors allowances before the final approval by the entire members during the annual general meeting.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES


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