The Impacts of Ownership Structure on Capital Structure and Firm’s Performance in Nigeria

Dr Ben Ukaegbu1  Dr Isaiah Oino2  Felix Babatunde Dada 3*
1.  Department of Finance and Accounting, London Metropolitan University, London
2.  Greenwich School of Management (GSM), Greenwich, London
3. University of Wales, GSM PhD Programme, London
* E-mail of corresponding author: felixdada66@gmail.com

Abstract

This research is aimed at determining the relationship between corporate governance and capital structure while the impact of this relationship on value of the firm using the panel data of selected Nigerian large non-financial firms was also investigated. A contrasting relationship was observed between capital structure and the firm’s performance while Nigerian firm’s capital structure was dominated by short term leverage. Leverage was negatively related to return on assets, number of board meetings and the board size while it was positively related to board composition. It was also observed that firm’s performance was positively related to leverage, number of board meetings and board size while it was negatively related to board composition.

Key words: Capital structure, Value of the firm, Leverage, Corporate governance.

1.0  Introduction

This research was aimed at investigating the relationship between capital structure and the ownership structure of large industrial firms in Nigeria with special interest on the effect of this relationship on the firm’s performance for the period between 2008 and 2012. The pecking order theory assumed that the manager tend to protect the investor with the use of debt that could lead to increase in the firm’s value. On this premise, there is therefore a need to investigate the impact of corporate governance on the performance of the firm.

The concept of Capital structure explained how the firm’s activities are financed using the combinations of debt and equity to optimise the value of the firm. The controversy relating to the concept of capital structure and the value of the firm was triggered by the paper presented by Modigliani and Miller (1958) that was entitled “the cost of capital, corporate finance and the theory of investment” however they concluded that the value of the firm is irrelevant to the determination of the value of the firm, though this conclusion was based on an unrealistic assumption of perfect financial market conditions. The academic discourse and controversy generated from the work of Modigliani and Miller (1958,1963) lead to the developments of the main theories of capital structure, prominent among these theories were , Trade- off theory of Kraus and Litzenberger (1973) , Pecking order theory of Myers and Majluf (1984) , Agency theory of Jenson and Meckling (1976) and the Market timing theory of graham and Harvey (2001).

The performance of the firm could determine the investor’s interest in the firm, and corporate governance also could play a moderating role on the Managers and their activities. As a result of the importance of corporate governance, it can play a role in the protection of the interest of the stakeholders and the best that of the firm. Rocca (2007) observed that capital structure could motivate corporate governance efficiency while the firm’s ability to create value is also protected, she concluded that corporate governance has a mediation role between the capital structure and the value of the firm.

There has been abundance of studies on capital structure in the developed economies with little done in developing countries generally and in particular Africa. The few research work done in this area in Nigeria was concentrated on the static capital structure of the trade-off theory, therefore there is need to adopt a more robust and complex dynamic capital structure research that will help the investors and other stake holders to appreciate the impact of corporate governance on the performance of the firm.

The major research on capital structure in Nigeria was done by Salawu (2007) using a panel data of 50 non-financial companies, though the methodology was a positivist approach but the attention was on the static trade-off theory, while other studies by Salawu and Agboola (2008), Akinyemi and Olagunju (2013) also examined how the capital structure determinants was explained by trade –off theory. Equally, Ajeigbe et al (2013) also tested the trade off theory of manufacturing firms in Nigeria. In view of the focus of the previous studies, we observed that the important relationship between capital structure and ownership structure, on one hand and the effect of this relation on the performance of the firm on the other hands, have not been given particular attention, hence the necessity for the current study.
Next section state the objective of the study, section three is the review of existing literature to establish the theoretical basis of the study, section four is the review of the research strategy used and model formulation, section five of the study is the analysis based on the formulated model while the last section is the conclusion.

2.0 Statement of Research Objectives
This research study was based on the following objectives;

- To evaluate the relationship between capital structure and the ownership structure of industrial firms in Nigeria.
- To determine the effect of ownership structure on the value of the firm

3.0 Literature Review
Modigliani and Miller (M&M) (1958) seminar paper triggered the controversy and research interest that lead to the level of academic discussions on the subject of capital structure, this groundbreaking study marked a major challenge to the traditional school’s opinion about the impact of cost of capital on leverage. They concluded that based on the assumption of perfect market for financial services the market value of the firm is independent of the leverage, that means the capital structure does not affect the firms value and that the value of the firm remain constant over various level of leverage.

As a result of controversy generated by the M&M proposition and the critical academic evaluation that followed, especially the assumption of perfect financial market and that the tax effect was not relevant to the effect of the leverage level on the value of the firm, with due consideration for the academic critic and evaluation of their earlier work, Modigliani and Miller however published the corrected version of this research paper in 1963. Modigliani and Miller (1963) realised that some of the conditions upon which their proposition was based could be unrealistic therefore they tried to relax some of the assumptions, particularly the assumption of free and competitive financial market, they observed that the debt financing do have tax advantage since debt servicing is tax deductible which could lead to a drastic decrease in the cost of capital, they however concluded that firm should not take the tax advantage to the extreme because too high debt could have a negative impact on the value of the firm in the long run, therefore the use of retained earnings was believed to be relevant especially when the limitations imposed by lenders that affect cost is taken into consideration.

Maghyereh (2005) reviewed the historical perspective of the capital structure and the academic critic that follow the presentation of Modigliani and Miller that the value of the firm is constant at different leverage level which means that the value of the firm is not affected by the choice of finance, Maghyereh however disagree with the M&M hypothesis as irrelevant to the real life situation and that the assumptions were unrealistic and wrong, he then concluded that the M&M conclusion is not consistent with today’s reality as there can not be an existence of a perfect market, he then concluded that the value of the firm is significantly influenced by the leverage level and the capital structure, this conclusion was based partly on the observation that the banks are not willing to lend to firms with high proportion of debt in their capital structure due to the high risk that is associated with the high geared firms.

Carpentier (2006) critically evaluated the M&M hypothesis, the study was based on the proposition that the changes in leverage level does not influence the value of the firm, he however used the pecking order theory to determine the long-run effect of leverage level changes, in support of M&M hypothesis he observed that the relationship between the leverage level and the value of the firm was not significant enough to reject the null hypothesis. It was observed that the samples used for this research comprises of firms of different stages either moving away from or moving toward the target or optimal capital structure, this could lead to increase in the level of bias in the research process and the assumption of static equilibrium that the target capital structure is constant, this indicates that changes in the target leverage level was ignored contrary to the findings of Hovakimian et al (2001) and Frank and Goyal (2003) that asserted that value of the firm depends on the firm’s stage, whether the firm’s moving away from the target capital or moving toward optimal level, this was supported by the research findings of kaya (2011).

Booth et al (2001) discovered that there are conflicts between the stakeholders in a firm, the manager in term of their expected benefits, they observed that there is agency cost of the manager’s choice of finance between the use of debt financing or equity financing, the use of debt financing could have the consequence of a debt overhang, this was consistent with the work of Jenson and Mecking (1976).

The study of capital structure have become scientific with the shift of emphasis to the more systemic and behavioural view of the firm and the use of positivist approach for the study of the capital structure dynamics. Rocca (2007) observed that the character of the firm is a factor that must be seriously considered as determinants of the capital structure, the importance of the firm’s characteristics was however supported by Sheikh and wang (2008), Makherjee and Mahakud (2010) and Oded et al (2011).
A recent development is the examination of the relationship between the capital structure and ownership structure with the associating impact on corporate governance and the value of the firm this is a major deviation from the traditional finance field of capital structure.

Rocca (2007) asserted that there is an important link between the firm’s capital structure and the value of the firm, he then stated that corporate governance is a major determinant of capital structure, that corporate governance played a mediating role between the leverage level and the value of the firm, he emphasised that efficient corporate governance could be motivated by the capital structure, that the choice of financing is influenced by corporate governance, he concluded that firm make corporate governance decision that is aimed at using financing to reduce the information asymmetry problem.

A major development was when Al-Najjar and Taylor (2008) extended the relationship between the capital structure and corporate governance to the emerging economies of sub Saharan Africa, to test the efficiency of the result of research conducted in western developed economies in an emerging economy of Africa, they however observed that the Jordanian firm demonstrated the same relationships as with what is obtained in the western developed countries, they discovered that capital structure is determined by profitability, growth rate, firm size, tangibility and liquidity.

Driffield et al (2005) observed the existence of a strong relationship between the capital structure and the ownership structure, they argued that irrespective of whether this is family owned or not, an increase in ownership concentration is associated with increase in leverage level of the firm. This result was supported by the findings of Cespedes et al (2010) when they observed a positive relationship between leverage and ownership concentration.

Margaritis and Psillaki (2010) observed that the leverage level of a firm increased with the outside owners and that these group of investors promote the use of debt finance, in other word the use of leverage rather than equity, this result was supported by the results of Poyry and Maury (2012), Pindado and Ganguli (2012) Zeitum (2014) in the study of the effect of ownership concentration on performance of the firm in 5 GCC countries (Qatar, Kuwait, Saudi Arabia, Bahrain and Oman) observed that ownership structure have some impact on the performance of the firm, that ownership structure affect performance positively and significantly, a firm’s capital structure has no effect on performance while the age and size of the firm have positive and significant effect on performance.

Masood (2014) emphasised the importance of the capital structure decision when he argued that such decisions has serious repercussions not only on the stakeholders of the firm but also for the survival of the firm in the face of the increasing competitive business environments. He noted however, that despite various theories and research studies on capital structure the issue of capital structure remain unresolved. He then suggested some control structures that could optimised the value of the firm:

1. The use of debt in the capital structure to control and curtail the sumptuous use of managerial incentives
2. The use of managerial equity ownership to align the interest of the managers with the external owner’s interest.
3. External block holders could be used as a pressure group to check the managerial excesses.

Rajangan et al (2014) in a recent study of the impacts of corporate governance in Malaysia discovered that ownership structure and board size have impacts on the profitability and gearing while they concluded that the executive directors and independent directors have an impact on the gearing of the firm, and that the non-independent and non-executive directors seems not related with the performance indicators of the firm.

4.0 Research Strategies

Leverage is a major concept that is used to measure the capital structure, several scholars have attempted to define what leverage should be, however this study was based on Rajan and Zingales (1995) determination of leverage, therefore leverage will be defined as the proportion of total asset to total capital while total capital will be defined as the addition of total debt and the total equity of the firm at a particular period.

This research involved the construction of an empirical framework for the study of the target capital using OSL to evaluate the basic relationship between leverage and the ownership structure based on panel data of Nigerian manufacturing industry.

The research was based on the data from all the active non financial companies listed in the NSE 30, which is the biggest 30 firms listed in Nigerian Stock Exchange (NSE), to reduce the level of bias with the research process only companies with continuous data for the period covered in the research was included, firms that do not have annual report and financial statement for the period under investigation was excluded from this study.
The analysis was done using the econometric tool of Eviews, while the research period was 2008 to 2012, the period 2008 was picked to avoid the structural break the 2008 financial recession could bring to the research process.

The empirical framework for the critical examination of the capital structure and ownership structure on one hand and the firm’s performance, the fixed effect target capital model will be constructed based on the Myer(1984), Rajan and Zingales (1995) Shyam-Sunder and Myers (1998) and Cotei (2011). The fixed effect model is used to determine the target leverage that will optimize the value of the firm.

\[ \text{LEV}_{it} = a_i + R\text{Xi}_{t-1} \quad \ldots \ldots \ldots \ldots \ldots (1) \]

\[ \text{ROA}_{it} = a_i + R\text{Xi}_{t-1} \quad \ldots \ldots \ldots \ldots \ldots (2) \]

Where \( X_{i,t-1} \) is the vector of observed firm characteristics, that is the independent variables, the total debt will be regressed against the firm characteristics based on the trade-off theory.

**Model 1**

\[ \text{LEV}_{it} = \alpha_i + \beta_1\text{ROA}_{t-1} + \beta_2\text{Bsize}_{t-1} + \beta_3\text{Bcomp}_{t-1} + \beta_4\text{Bmeet}_{t-1} + \text{E}_t \quad \ldots \ldots (3) \]

**Model 2**

\[ \text{ROA}_{it} = \alpha_i + \beta_1\text{LEV}_{t-1} + \beta_2\text{Bsize}_{t-1} + \beta_3\text{Bcomp}_{t-1} + \beta_4\text{Bmeet}_{t-1} + \text{E}_t \quad \ldots \ldots (4) \]

Where:
- LEV is the total leverage which is the measure of the firm’s capital structure
- ROA is return on assets, these is the measure of firm’s performance
- Bsize is the Board size, measured by the total number of directors of the firm
- Bcomp is board composition, measured by the percentage of independent directors to the total board directors of the firm.
- Bmeet is number of board meetings measured by number of times the board meet during the year.

### 4.0 Analysis and Findings

This research analysis was base on the adoption of fixed and the partial adjustment model to illustrate the relation between the tested variables, a single definition of total leverage was used for the measurement of capital structure while two dependent variables; Leverage and Return on Assets were used and regressed with the independent variables for the determination of the relations that subsist between the variables using the formulated models.

<table>
<thead>
<tr>
<th></th>
<th>LEV</th>
<th>LEVLT</th>
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<td>0.537788</td>
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<td>0.443658</td>
<td>0.538000</td>
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<td>0.898602</td>
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<td>3.000000</td>
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<td>0.163227</td>
<td>0.192077</td>
<td>0.793067</td>
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<td>2.920538</td>
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<td>2.920538</td>
<td>2.466913</td>
<td>2.741545</td>
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</table>

Observations: 80
Table 1: Descriptive statistics of the variables

Table 1 is the descriptive statistics of the observed variables, leverage has a mean of 0.63 with the median of 0.64 which indicates that leverage has a fair distribution and that leverage is an important component of capital structure in Nigeria. However the mean of ROA is 0.15 while the median is 0.13 which also show fair distribution. The gap between the maximum and minimum for both leverage and ROA are high but acceptable considering the distribution. The test of normality was done using the Skewness and Kurtosis. It was also observed that leverage was largely dominated with the short term leverage which could be as a result of the stage of financial market development that could make it difficult for firms to raise long term fund hence the firms mostly financed their activities using short term finance.

Dependent Variable: LEV
Method: Least Squares
Date: 05/31/14   Time: 20:28
Sample: 2008 2012
Included observations: 80

<table>
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<th>Variable</th>
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<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
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<td>-0.720612</td>
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R-squared 0.586941  Mean dependent var 0.634590
Adjusted R-squared 0.438244  S.D. dependent var 0.154994
S.E. of regression 0.152001  Akaike info criterion -0.869400
Sum squared resid 1.732818  Schwarz criterion -0.720524
Log likelihood 3.977602  Hannan-Quinn criter. -0.809712
F-statistic 1.785362  Durbin-Watson stat 1.891655
Prob(F-statistic) 0.140652

Table 2 illustrating the relation between leverage and the ownership structure of the firm

Table 2 above is the regression analysis of the relation between the dependent and independent variables, leverage is negatively related with return on asset, number of board meetings and the board size while there is a positive regression between leverage and board composition. This result is statistically significant based on the value of probabilities and F-statistics. However this finding is accepted as valid based on the 0.58 value of R².
This result is contrary to the findings of Ganguli (2012) while the observed negative relation between leverage and return on asset supported the proposition of the trade off theory and the findings of Rajangan et al (2014)

Dependent Variable: ROA
Method: Least Squares
Date: 06/18/14 Time: 19:23
Sample: 2008 2012
Included observations: 80

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R-squared 0.510750
Mean dependent var 0.159997
Adjusted R-squared 0.475648
S.D. dependent var 0.160693
S.E. of regression 0.154496
Akaike info criterion -0.848595
Schwarz criterion -0.729494
Log likelihood 3.794380
Hannan-Quinn criter. -0.800844
Durbin-Watson stat 1.870394

Table 3 illustrating the relation between firm's ownership structure and the financial performance of the firm

Table 3 show that return on asset is positively related to leverage, number of board meeting and the board size, while return on asset is negatively related to the board composition, this result could be considered valid based on the values of the probabilities, F-statistics and $R^2$. This result agree with the definition of corporate governance given by Gillan and Starks (1998) while it also support the findings of Rajangan et al (2014) and Zeitum (2014)

5.0 Conclusion
The result of this research study that the firm’s financial performance is positively related to leverage, the number of board meeting and board size while it is negatively related to the composition of the board indicate that corporate governance have impact on the financial performance of the firm. This was consistent with the findings of Zeitum (2014) and Rajangan et at (2014). However it was observed that there was a substantial relation between capital structure and the corporate governance with its implications on the agency cost problems that is faced by the firm.

A contrast relation was discovered between capital structure and the firms performance, while firm’s performance affect the capital structure negatively, interestingly capital structure affect firm’s performance positively therefore each of the two variables is a determinant of each other.

It was observed that most firms that was selected for the study did not perceive corporate governance as described by Shleifer and Vshny (1997) and Gillan and Starks (1998), these firms considered corporate governance as mere statutory requirements therefore they only provide corporate governance information to meet legal requirements of corporate governance minimum disclosure and not because of the benefit of such information.

Firms should therefore take the issue of corporate governance more seriously and not just a requirement of the law but based on proper understanding of the importance of corporate governance as a way of protecting the interest of the firm’s stakeholders and the overall best interest of the firm.

This research was limited to the sixteen large non-financial firms listed in the Nigerian Stock exchange, there is need for a more embracing study that will include all the non-financial firms that is listed in the Nigerian Stock Exchange to reduce the problem of bias that is associated with generalisation of findings. There is also the need to exploit the use of Tobin’s Q as a measure of firms performance in Nigeria.

Bibliography


Correlation

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