Effect of Gearing on Shareholders’ Wealth in Quoted Manufacturing Companies in Nigeria

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Abstract
The research work examined the effect of gearing on shareholders’ wealth in quoted manufacturing companies in Nigeria. The objective of the study was to examine how gearing affects shareholders’ wealth of quoted manufacturing companies in Nigeria. This study is based on the stakeholder’s theory and agency theory. The secondary data source was explored in presenting the facts of the study. The secondary data were obtained from relevant literature, journals, and annual reports of selected manufacturing companies in Nigeria for the years 2012 to 2018 (6 years). Data were tested using the Panel Least Square Regression model. The findings showed clearly that, collectively, the endogenous variables (board size, firm size, and leverage) were significantly associated with the dependent variable (return on equity). Thus, these independent variables strongly have impact on shareholders’ wealth in quoted manufacturing companies in Nigeria measured by return on equity. As a result, the study concluded that gearing is a good source of finance to firms as it enables firms to carry out capital projects with positive net present values and also reduce the tax payable by the firms. The study recommended among others that, since the major goal of a firm is to maximize profits, the management of quoted manufacturing firms should ensure that gearing levels are maintained at a minimum level.

Keywords: Board Size, Firm Size, Leverage, Manufacturing Firms, Return on Equity

1.0 Introduction
The capital structure involves the decision about the combination of the various sources of funds a firm uses to finance its operations and capital investments. A major importance of capital structure is that it is lightly related to the ability of forms to fulfill the needs of various stakeholders. Financial constraints have been a major factor affecting corporate firm’s performance in developing countries especially Nigeria (Uddin & Chowdhury, 2005).

A firm’s leverage (Gearing) refers to the mix of its financial liabilities. Gearing refers to the level of a company’s debt related to its equity capital. It is the measure of a company’s financial leverage and shows the extent to which its operations are funded by lenders versus shareholders. In particular, the role of gearing as a potential means of contributing to funding performance in the long or short run remains unclear (Aregbeyen & Mbadiugha, 2011).

Azeem and Kouser, (2011) opined that as financial capital is an uncertain but critical resource for all firms, suppliers of finance are able to exert control over firms. In the quest to optimize organization’s objective, which hinges primarily on quantifiable performance, financial managers have adopted various capital structures as a means to that goal. The basis for the determination of the optimal capital structure of corporate sectors in Nigeria is the widening and deepening of various financial markets.

Some management researchers such as Merilkas, Merilkas, and Prasad (2013), have viewed capital structure decisions arising from the preferences of various stakeholders such as managers, board of directors and institutional investors. The nature and extent of relationship between capital structure and financial performance of firms have attracted the attention of many researchers. While these studies have definitely contributed to some understanding of the linkages between firm performance and capital structure, they have largely ignored some basic issues confronting researchers and managers alike namely: Does it matter how firms finance their assets? And or do different means of financing make a difference. There has been an ongoing debate in the finance world on the issue of capital structure and financial performance of firms. In reality, the optimal capital structure of a firm is difficult to determine.

According to Emekewu (2005), financial leverage is very critical in the process of arriving at an appropriate capital structure of the firm. An important financing decision that firms must take is to decide the proportion of debt and equity that will constitute their capital structure. Moreover, despite the research on financial leverage (gearing) has been conducted in the advanced countries using non-financial listed
firms. A firm has to issue various securities in a countless mixture to come across particular combinations that can maximize its overall value which means optimal capital structure.

Optimal capital structure means with a minimum weighted-average cost of capital, the value of a firm is maximized. Failure to put considerations on capital structure might lead to low profitability, bankruptcy, failure to invest in high returns project and ultimately decrease in the value of the firm (Gordon, 1962). Modigliani and Miller, (1961) capital structure irrelevance theorem, the determination of optimal capital structure has been very controversial in Financial Economics Based on these contending views and the resultant conspicuous gap in empirical research on capital structure of manufacturing firms in Nigeria and the appropriate financing means of firm’s operations, corporate managers are faced with a problem of which means of finance and at what level in terms of magnitude will bring about the efficient performance of a firm.

Many studies have been carried out on financial leverage and firms’ performance; however, these studies have failed to reach an agreement that is applicable to firms in all circumstance (Akande, 2013). This study is an attempt to fill this gap in knowledge; consequently, the problem of this study is to assess the relationship between gearing and financial performance of listed banks in the Nigeria Stock Exchange.

2.0 Literature Review
2.1 Conceptual Clarifications

Investors and potential investors will be compelled to invest their hard-earned savings in an organization that promised to make a return that will change their wealth position at a particular point in time. Someone has to decide an appropriate level of borrowing for a firm given its equity capital base. To assist this decision, it would be useful to know if it is possible to increase shareholder wealth by changing the gearing level (Paramasivan & Subramanian, 2012).

The essence of capital structure decision is to ensure the right combination of financing resources that will yield maximum return without necessarily hampering the interest of stakeholders. There are risks involved in using debt financing; such risk is described as a financial risk. Financial risk is the type of specific risk that encompasses the many types of risk related to the company’s capital structure financing and the finance industry; this risk can be used to assess both the business and financial structure of a firm (Karnawi, 2017).

2.1.2 Concept of Gearing

Jiraporn (2011) defined as the level of the company’s debt related to its equity capital. The term ‘gearing’ also refers to the ratio between a company’s stock price and the price of its warrants. However, RosikahDwi, Dzulfikri, Muh, and Miswar, (2018) and Pike & Neale, (2009) opined that there are three usual perspectives of gearing which are: operating gearing; financial gearing and combined gearing. Other perspectives are capital gearing and income gearing.

- **Operating Gearing**
  This refers to the use of fixed operating costs such as depreciation, insurance of assets, repairs and maintenance, property taxes, etc. in the operations of a firm. But it does not include interest on debt capital. This is a situation whereby a firm increases its revenue from sales without proportionate increase in operating expenses. Furthermore, the variability of earnings before interest and tax has two components of sales and expenses. Operating leverage is the ability of a firm to use fixed operating cost to magnify effects of changes in sales on its earnings before interest and tax.

- **Financial Gearing**
  This is primarily concerned with the financial activities which involve raising of funds from the source for which a firm has to bear fixed charges such as interest expense s, loan fees, etc. long term debt capital carries a contractual fixed rate of interest and its payment is obligatory irrespective of the fact whether the firm earns a profit or not. Financial gearing is the ability of a firm to use fixed financial charges to magnify the effects of changes EBIT on firm earnings per share. In other words, financial leverage involves the use of funds obtained at a fixed cost in hope of increasing the return to the equity shareholders. Favourable or positive financial leverage occurs when a firm earns more on the investment of the assets purchased with the fund than the fixed cost of their use. Unfavourable or negative leverage occurs when the firm does not earn as much as the funds cost. Financial gearing is also called “Trading in Equity.”

- **Combined Gearing**
  Operating gearing shows the operating risk and is measured by the percentage change in EBIT due to percentage change in sales. The financial gearing shows the financial risk and is measured by the percentage
change in EPS due to a percentage change in EBIT. Both operating and financial gearing are closely concerned with ascertaining the firm’s ability to cover fixed costs or fixed rate of interest obligation if it is combined the result is total gearing and the risk involved with combined leverage is known as total risk.

- **Capital Gearing**
  Capital gearing focuses on the extent to which a firm’s total capital is in the form of debt. There are alternative measures of the extent to which the capital structure consists of debt. One popular approach is the ratio of long term debt to shareholders funds (the debt to equity ratio). The long-term debt is usually taken as the statement of financial position item ‘amounts falling due after more than one year, and shareholders’ funds are the net asset (or net worth) in the statement of financial position.

- **Income Gearing**
  Income gearing is concerned with the proportion of the annual income stream (that is pre-interest profits) which is devoted to the prior claims of debt holders, in other words, what proportion of profits is taken by interest charge. The capital gearing measures rely on the appropriate valuation of net assets either in the statement of financial position or in a revaluation exercise.

2.1.3 **Conceptual framework of Gearing on Shareholders’ Wealth in Quoted Manufacturing Companies in Nigeria**

2.2 **Theoretical Framework**

2.2.1 **Stakeholder’s Theory**

One of the assumptions behind much financial theory is that the only goal of a company is to maximise its value and thus maximise the wealth of the shareholders. This assumption implicitly states that shareholders are only interested in increasing their personal wealth. Any action was taken by management that does not result in increased wealth is, therefore, not in their interest. If management does not act according to the owners’ preferences an agency problem occurs. Stakeholder theory holds that maximising the value of one’s stakeholders will also maximise the value of the whole company. This was the original thought of Freeman (1984), but there is still some doubt whether this is, in fact, true. So far the evidence linking stakeholder theory with improved financial performance is limited, and only a few have attempted a thorough analysis of the relationship.

Jensen (1986) emphasises that management should only focus on maximising the total value of the company. By total value he refers not only to the value of the equity but also the value of all other financial claims such as debt and preferred stock. He argued further that, for management to be effective, the objective function of the company must contain only one objective. More objectives will require trade-offs...
between the competing interests, and that management will not be able to make these trade-offs efficiently, thus preventing them from making purposeful decisions.

2.2.2 Agency Theory

Agency relationship is defined as a situation where one party (principal) appoints another (agent) to perform services on their behalf and delegates decision making authority to them. The underlying premise of this theory is that those individuals tasked with the representation of others should ultimately commit the corporate resources to value maximization for those they represent (Beckett, & Cheryl, 2002).

According to Otley, (1980), the normative agency theory, also named the Principal-Agent Model, has as objective to issue optimal agreements between partners and to explain their behaviour as soon as an agency relationship begins. An agency relationship is an agreement in which one or more persons, called principal(s), engages another person, called agent, to perform some service on their behalf which involves delegating some decision-making authority to the agent. The agency theory assumes that the interests of principal and agent diverge.

In a company, there are many agency relationships: between shareholders (principal) and managers (agent); between a creditor (principal) and shareholders and managers (agents); between an employer (principal) and employee (agent), etc. The firm can be perceived as an assembly of principal-agent relationships, more or less ranked, in which the agents can also exercise the principal function in other relationships. Every stakeholder or group of stakeholders will attempt to act in order to satisfy its own interests: For the principal, the issue is to determine appropriate incentives for the agent and optimal control procedures designed to limit opportunistic action by the agent; For the agent, the issue is to relate the effort with the information depending on which the primary judgment from the principal will be made; a great effort that cannot be reported to the principal will be useless but, on the opposite, a small effort will not be well seen. A company’s behaviour is comparable to the market’s one, meaning that is the result of a complex balancing process (Donaldson & Davis, 1991).

2.3 Review of Empirical Studies

The reviews of theoretical literature on financial leverage provide different views on the relationship between gearing and financial performance. While some theories predict a positive relationship between gearing and firm’s performance, others predict negative relationship and the Modigliani and Miller proposition predicts the irrelevance of debt-equity choice on the value of a firm. This section is therefore devoted to reviewing empirical studies on gearing and firms’ performance conducted around the world in order to validate theoretical predictions.

Margaritis and Psillaki, (2007) considered a similar relationship for a sample of New Zealand small and medium sized enterprises using distance functions as a measure of firm performance, and also found that financial leverage has a significant positive relationship with firm performance.

Mwangi, Makau, and Kosimbei, (2014) investigated the relationship between capital structure and performance of 42 non-financial companies listed in the Nairobi Securities Exchange, Kenya. The study used secondary panel data contained in the annual reports and financial statements of the sampled listed firms and employs panel data models (random effects) and feasible generalized least square (FGLS). The results show that financial leverage is statistically negatively related to performance measured by return on assets and return on equity.

Fosberg and Ghosh, (2006) in their research conducted on 1022 companies in the New York Stock Exchange (NYSE) and 244 companies in the America Stock Exchange (AMEX) concluded that the relationship between total debt and financial performance is negative.

Maina and Ishmail (2014) examined the relationship between capital structure and financial performance of all the firms listed at Nairobi Securities Exchange from 2002 to 2011. The result generated from the output of Gretl statistical software indicated a negative relationship between total debt to total assets and financial performance. Laurent (2002) studied the relationship between leverage and corporate performance in France, Germany, and Italy. The multiple regression techniques were adopted on the study variables (leverage, tangibility, short-term liabilities, inventory, and size). The study found mixed evidence depending on the country; while
a negative relationship was reported in Italy, the relationship between leverage and corporate performance is significantly positive in France and Germany. Thaddeus and Chigbu (2012) studied the effect of financial leverage on bank performance using 6 banks from Nigeria. The study utilized secondary data from Nigerian Stock Exchange factbook and the financial statements of the sampled banks. Debt-equity and coverage ratios were taken as proxies for financial leverage, and these constitute the independent variables while earning per share (EPS) representing performance is the dependent variable. Multiple regression techniques were used to establish whether relationship exists between financial leverage and performance of sampled banks. The findings show mixed results. While some banks report positive relationship between leverage and performance, others revealed negative relationship between leverage and performance. Onaolapo & Kajola (2010) investigate the effect of capital structure on the financial performance of companies listed on the Nigerian Stock Exchange. This study was performed using 30 non-financial companies in 15 industry sectors in a 7-year period from 2001 to 2007. The results showed that financial leverage (debt ratio) has a significant negative effect on financial performance (ROA and ROE) of sampled firms. David and Olorunfemi (2010) studied the impact of capital structure on corporate performance of firms in the Nigerian petroleum industry for the period 1999-2005. The study employed panel data analysis using fixed-effect estimation, random-effect estimation, and maximum likelihood estimation. The study found that there is a positive relationship between leverage and firm performance surrogated by earning per share and dividend per share for leverage and performance.

3.0 Methodology
This study made use of secondary data obtained from annual financial statements of five listed manufacturing firms in Nigeria for six years from the period of 2012 to 2017. A multiple panel regression technique was used for the estimation in this study. This is because the data used in this study involves panel data of selected variables and have elements of time series. Ordinary Least Square technique, i.e., Regression analysis was adopted to obtain interpretable findings. The relationship between gearing indicators; Leverage (LEV), Firm Size (Fz), Board Size (Bz) and shareholders’ wealth represented by Return on Equity (ROE) were examined using linear regression model.

3.1 Model Specification
The following mathematical models were developed to analyse the relationship between gearing and shareholders’ wealth of manufacturing companies in Nigeria using Leverage (LEV), Firm Size (Fz) and Board Size (Bz) as the independent variables and regressed against the dependent variable Return on Equity (ROE) used as proxy for shareholders’ wealth.
This study employed the model specified below:

\[ Y_{lt} = \alpha + \beta_1 LEV_{lt} + \beta_2 Fz_{lt} + \beta_3 Bz_{lt} + \epsilon_{lt} \] .................................3.1

Where Y represents the shareholders’ wealth of firms in Nigeria measured by ROE
\( \alpha \) = the constant term
LEV = Leverage
Fz = Firm Size
Bz = Board Size
\( \epsilon \) = Error Term
In this study, the model will be modified as follows:

\[ ROE_{lt} = f(LEV_{lt}, Fz_{lt}, Bz_{lt}) \] ..........................................................3.2

\[ ROE_{lt} = \alpha_{lt} + \beta_1 LEV_{lt} + \beta_2 Fz_{lt} + \beta_3 Bz_{lt} + \epsilon_{lt} \] ..........................................................3.3

4.0 Results and Discussion of Findings
4.1 Descriptive Statistics
The table below shows a summary of the descriptive statistics of the variables that were obtained from the analysis.
Table 4.1: Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>Statistic</td>
<td>Statistic</td>
<td>Statistic</td>
<td>Statistic</td>
<td>Statistic</td>
<td>Std. Error</td>
<td>Statistic</td>
</tr>
<tr>
<td>LEV</td>
<td>30</td>
<td>.01</td>
<td>1.24</td>
<td>.4297</td>
<td>.20893</td>
<td>.044</td>
<td>1.005</td>
<td>.254</td>
</tr>
<tr>
<td>BZ</td>
<td>30</td>
<td>10.00</td>
<td>28.00</td>
<td>14.722</td>
<td>2.96810</td>
<td>8.810</td>
<td>.723</td>
<td>.254</td>
</tr>
<tr>
<td>FZ</td>
<td>30</td>
<td>2.00</td>
<td>2.00</td>
<td>2.0000</td>
<td>.0000</td>
<td>.000</td>
<td>. .</td>
<td>. .</td>
</tr>
<tr>
<td>ROE</td>
<td>30</td>
<td>15.00</td>
<td>95.91</td>
<td>24.1863</td>
<td>14.51273</td>
<td>210.619</td>
<td>3.785</td>
<td>.254</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher’s E-Views Output, (2019)

The descriptive statistics above show that over the study period, shareholder’s wealth measured through Return on equity (ROE) had a mean of 24.18 with a standard deviation of 14.5. The number of meetings (NOM) had a mean of 5.97 and standard deviation of 1.40. The board size had a mean of 14.72 and a standard deviation of 2.96, the minimum value and the maximum value was 28.00 and 10. 00. The mean value of the board composition was 2.00 with minimum and maximum value of 2.00 and 2.00; this implies that the board composition has no significant relationship with the financial performance with a constant value of 2.00 for the mean, maximum and minimum values. The peakedness of each variable is given by the kurtosis statistics, the symmetric nature of the series given by the skewness value. From the table it was observed that all the variables except firm size showed values of skewness. Also, the variables are skewed to the right, given the corresponding positive skewness statistics. The kurtosis statistics revealed that all the variables were platykurtic (i.e., positive kurtosis values less than 3).

4.2 Test of Hypothesis

H0: Gearing has a significant effect on shareholder’s wealth of manufacturing companies in Nigeria

Table 4.2 Results of Ordinary Least Square Regression

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bz</td>
<td>0.007196</td>
<td>0.016864</td>
<td>0.426696</td>
<td>0.6757</td>
</tr>
<tr>
<td>Fz</td>
<td>-0.005416</td>
<td>0.006157</td>
<td>-0.879642</td>
<td>0.3929</td>
</tr>
<tr>
<td>LEV</td>
<td>0.007889</td>
<td>0.030433</td>
<td>0.259223</td>
<td>0.7990</td>
</tr>
<tr>
<td>C</td>
<td>-1.72E-05</td>
<td>1.47E-05</td>
<td>-1.167729</td>
<td>0.2611</td>
</tr>
</tbody>
</table>

Source: Researcher’s Computer Output, E-views 7.

Findings from the time series regression analysis using ordinary least square model for table 4.2 indicated that $R^2$ (coefficient of determination) of the variables was 0.2190. As a measure of the overall fitness of the model, the $R^2$ indicated that, the model was capable of explaining 21.9% of the variation in the dependent variable which could be traced to the independent variables and that about 78.1 percent of the variations in turnover ratio was accounted for by other factors not captured by the model.

Similarly, findings from the F-Statistic which is proof of the validity of the estimated model presented a p-value of (0.014138) less than 0.05. This suggested clearly that collectively, the endogenous variables (board size, firm size, and leverage) were significantly associated with the dependent variable (return on equity).
Thus, these independent variables strongly have an impact on shareholders’ wealth quoted manufacturing companies in Nigeria measured by return on equity. Also, the analysis revealed a Durbin-Watson statistic value of 2.386828. The Durbin-Watson statistic will always have a value between 0 and 4. Values from 0 to less than 2.0 indicate positive autocorrelation and values form 2 to 4 indicate negative autocorrelation. Thus, the result (1.386828) showed that the independent variables were positively autocorrelated.

5.0 Conclusion
The study centred on the relationship between gearing indicators and shareholders’ wealth in quoted manufacturing companies in Nigeria. It was found out that there is a strong impact of gearing on shareholders’ wealth measured through return on equity (ROE) of quoted manufacturing firms on the Nigeria stock exchange market. Thus, gearing is a good source of finance to firms as it enables firms to carry out capital projects with positive net present values and also reduce the tax payable by the firm. It has also been discovered that a large amount of debt (high gearing) have a negative effect on firms that makes low profit as these firms pay more on interest on the debt. Thus the investors may receive little or no earnings (dividend). Investors’ faith in both the companies and the capital market is shaken leading to the decline in the corporate value of firms. This study has however established that there is a relationship between gearing and shareholders’ wealth of manufacturing companies and also financial leverage has an effect on firms’ value, both positive and negative effects. Since the major goal of a firm is to maximize profits, the manufacturing firms’ management should ensure that gearing levels are maintained at a minimum level. This is because high debt levels result in high interest expenses which reduce operating income thereby reducing profitability. Therefore, to maximize performance, management of companies should develop strategies on how to increase the firm size (total assets).

References


