Ownership Structure On The Value Of Firms In Nigeria

Peter E. Ayunku
Department of Banking and Finance, Niger Delta University, Wilberforce Island, Bayelsa State, Nigeria.

Ekokeme Tamaroukro Timipere
University of Africa, Toru-Orua, Sagbama, Bayelsa State, Nigeria
Corresponding Email Address: timiwealthy@yahoo.com

DOI: 10.29322/IJSRP.9.09.2019.p9399
http://dx.doi.org/10.29322/IJSRP.9.09.2019.p9399

Abstract
The paper examined the ownership structure on the value of listed firms in Nigeria. The objective of the study was to ascertain whether debt to equity ratio and debt to asset ratio has a significant impact and relationship with returns on equity of corporations in Nigeria. The ex-post facto research design was adopted to observe the study variables in retrospect. To achieve this, the study collated data from ninety-four corporations, spanning 2007 to 2017. Descriptive statistics and panel regression techniques were used to analyse and estimate the dataset for the study. The results reveal that debt to equity ratio has a significant positive relationship with returns on equity. This implies that debt to equity ratio is a significant positive determinant to the value of corporations in Nigeria. It also emerged that debt to asset ratio has a significant negative relationship with returns on equity. This means that debt to asset ratio is an insignificant negative determinant of the financial performance of corporations in Nigeria. The study recommends the optimization of the ownership structure of corporations so as to maximize the value of the firm and minimize the overall cost of capital of corporations.

Key words: Ownership structure, listed firms, value, Nigeria

1. Introduction
The nature and magnitude of relationship between capital structure and financial performance of firms have attracted plethora of attention in finance literature (Dahiru, 2016). Capital structure involves the decision about the combination of the various sources of funds a firm uses to finance its operations and capital investments. These sources include the use of long-term debt finance called debt financing, as well as preferred stock and common stock also called equity financing. One of the most important goals of financial managers is to maximize shareholders fund through determination of the best combination of financial resources for a company to maximize the value of the company’s by determining where to invest their resources.

Capital structure as the various means of financing a firm, that is, the proportionate relationship between debt and equity (Pandey, 2010). The capital structure of a firm is a significant managerial decision because it influences the shareholder’s return and risk as the market value of the share may be affected by the capital structure decisions. Consequent on this, according to Pandey (2010), managers are expected to answer the following questions: how should the investment project be financed; does the way in which the investment projects are financed matter; how does financing affect the shareholders’ risk, return and value; does there exist an optimum financing mix in terms of the maximum value to the firm’s shareholders; can the optimum financing mix be determined in practice for a company; and what factors in practice should a company consider in designing its financing policy?

Studies on capital structure dates back to several decades ago by Modigliani and Miller (1958). They proved that, under certain assumptions (existence of perfect market and the absence of taxes and transaction costs),
costs of capital does not affect capital structure. That is; debt in a firm’s capital structure does not affect the firm’s value. Later, Modigliani and Miller (1963) modified the irrelevant theory by presenting proof that cost of capital affect capital structure and thus the value of the firm when the assumptions that there are no taxes or transaction cost were removed. They then opined that borrowing give a tax advantage, where the tax deducted from the interest results in tax shields, which in turn reduces the cost of borrowing and maximizes the firm performance (Miller, 1977). This requires the firm to make a trade-off between the cost of debt and the benefits of using debt.

Combinations of equity and debt in firms’ capital structures have been identified by scholars to affect current and future financial operations of the firm (Adesina, Nwidobie, & Adesina, 2015). Debt, a tax deductible expense, seems cheap when minimal as the after-tax cost is lower than equity improving earnings per share and dividend per share. Increasing levels of debt in a firm’s capital structure increases its after-tax cost, negatively, thus affecting corporate financial performance. Empirical findings on the relationship between the value of a firm the ownership structure of a firm has been inconclusive. For instances, total debt to total assets has a significant negative relationship with the value of a firm (Maina & Ishmail, 2014; Almustapha, 2014). The following study by Rafiu, Taiwo and Dauda (2012) and Idode Adeleke, Ogunlowore, and Ashogbon (2014) found total debt to total assets and financial performance to have a strong positive relationship. Consequently, this gives credence to further examine the relationship between capital structure and the value of firms in Nigeria. This study therefore attempts to contribute to literature in this regard.

2. Theoretical Framework

The study draws theoretical credence from the following theories;

Modigliani and Miller theory of capital structure: this theory was founded in the year 1958 and later refined to include corporate tax in 1963. The theorem states that in perfect market – were there are no taxes, transaction costs and free flow of information; the market value of a company is determined by its earning power and risk of its underlying assets and that its value is independent of the way it finances investments or distribute dividends. This implies that the value of a corporation is determined by real assets and not the securities it issues. Thus the theory holds that capital structure is irrelevant. In 1963, Modigliani and Miller incorporated corporate tax into the original theorem and posit that interest charges on debt are tax deductible and that this tax advantage has an impact on the weighted average cost of capital and that the value of an unlevered firm. The theory further stated that with taxes, the market value of the firm will increase while the cost capital will decrease with leverage.

Traditional theory of capital structure: this theory states that the capital structure is relevant in determining the market value of the firm. The theorem posits that the market value can be increased or the cost capital can be reduced by the proportion of debt capital and equity. The theory holds that cost of capital declines with leverage up to a point where it is at its minimum and then starts to rise.

Net operating income theory of capital structure: this theory holds that capital structure is irrelevant in the determination of the market value of a firm. It holds that the market value is the capitalized value of the net operating income. That is, the cost of capital divided by the net operating income. The theory states that cost of equity and leverage are linearly related. That is, an increase in leverage leads to increase cost of equity. The theory holds that when cost of capital is constant, all other capital structure is optimum.

Pecking order theory: this theory was originated by Myers and Majluf (1984) who demonstrate that a share issue is generally perceived negatively by investors. This is because managers tend to issue shares when they are overpriced. Stated in simple terms, the pecking order theory suggests that in order to avoid the information effects of new share issues, a firm is more likely to issue debt than equity. This prediction is conditional on the managers’ belief that their firm’s securities are under-priced. The pecking order theory
implies that managers will follow the path of least resistance, and that they will work down a pecking order by opting to issue the cheapest form of financing.

Market timing theory: market timing theory is a recent development and refers to the firms’ practice of issuing equity at a high price and repurchasing it at a lower price. The theory is premised on the assumption that managers base their financing decision on conditions on the capital markets. If conditions on the market are unfavourable, managers may consider delaying investments. Such conditions preclude the idea of the existence of a target capital structure. Rather, the corporate capital structure appears as the aggregate of managers’ efforts to synchronise with the capital market.

3. Review of Empirical Literature

Dahiru (2016) investigated the impact of capital structure on financial performance of listed manufacturing firms in Nigeria. The study formulated four hypotheses and used generalized least square multiple regression to analyze the secondary data extracted from the annual reports and accounts of the 31 sampled firms for the period 2009 to 2014. The study found that total debt, long-term debt and short-term debt have significant impact on the financial performance of listed manufacturing firms in Nigeria. The study also found that total debt to total equity has no significant effect on the financial performance of the firms.

Adesina et al., (2015) examined the impact of post-consolidation capital structure on the financial performance of Nigeria quoted banks. The study used profit before tax as a dependent variable and two capital structure variables (equity and debt) as independent variables. The sample for the study consists of ten (10) Nigerian banks quoted on the Nigerian Stock exchange (NSE) and period of eight (8) years from 2005 to 2012. Ordinary least square regression analysis shows that capital structure has a significant positive relationship with the financial performance of Nigeria quoted banks.

Antwi, Mills, and Zhao (2012) examined the impact of capital structure on a firm’s value. The analysis was implemented on all the 34 companies quoted on the Ghana Stock Exchange (GSE) for 2010. The ordinary least squares method of regression was employed in carrying out this analysis. The result of the study reveals that in an emerging economy like Ghana, equity capital as a component of capital structure is relevant to the value of a firm, and Long-term-debt was also found to be the major determinant of a firm’s value.

Lawal (2014) examined the factor that magnifies the value of a firm using data sourced from Nigerian commercial banks between the periods 2007 to 2012. The used OLS technique and White-HAC heteroskedasticty test to infer the relationship between capital structure and the value of a firm in Nigeria. It was observed that debt instrument play significant role in magnifying the value of Nigerian banking firms, while equity role is partially significant. We suggest that bank managers as well as regulators adopt measures that will promote leverage usage so as to maximise the overall value of the firm.

IbrahimKaraye, Nasidi, Amos, & Ibrahim (2015) study focused at examining the determinant of capital structure decision of 11 listed food/beverages and tobacco firms in Nigerian capital market. The study reveals that tangibility, firm growth, profitability has a significant positive effect on determinant of capital structure decision of listed food/beverages and Tobacco firms in Nigeria. The findings further reveals that, firm size is positively correlated and significant to the value of the firm.

Richard (2016) examined the effect of capital structure on performance of public listed companies in DSE Tanzania using a panel data of six companies during the 5 year period, from 2009 to 2013. Panel data for the selected companies were generated and analyzed using fixed effect regression statistical technique to test the relationship between capital structure variables and return on asset and random effect used to test the relationship between capital structure variables and return on equity. The results of the study revealed the mixed results, a negative relationship revealed between debt to equity ratios and return on equity while debt to asset ratios indicated a positive relationship with return on equity. The overall results revealed that capital structure has a

positive impact on company profitability while some of capital structure variables with combination of debt to equity indicated a negative relationship with company profit.

Saeed, Gull, and Rasheed (2013), using multiple regression models, studied the impact of capital structure on performance of Pakistani banks. They utilized data of banks listed on Karachi Stock exchange for the period 2007 to 2011. Performance was measured by return on assets, return on equity and earnings per shares and determinants of capital structure include long – term debt to capital ratio, short – term debt to capital ratio and total debt to capital ratio. Their result indicated that there is a positive relationship between determinants of capital structure and performance of the banking industry.

Yinusa, Adelopo, Rodionova, and Samuel (2019) examined the impact of capital structure on firm performance in Nigeria as well as test the possibility of non-monotonic relationship between capital structure and firm performance based on the prediction of the agency cost theory of capital structure when firm use debt financing excessively. The study used dynamic panel model on panel data of 115 listed non-financial firms in Nigeria. Specifically, the paper employed the two step generalized method of moments (GMM) estimation method that recognizes the persistence of the dependent variable by including its lag value as an explanatory variable in the regression model. The major findings indicate statistical significant relationship exist between capital structure and firm performance particularly when debt financing is moderately employed. However, the paper found evidence of non-monotonic relationship between capital structure and firm performance when firms in Nigeria employed excessive debt financing which impinged on the performance of firms.

Ogebe, Ogebe, and Alewi (2013) investigated the impact of capital structure on firm performance in Nigeria from 2000 to 2010. The study considered the impact of some key macroeconomic variables (gross domestic product and inflation) on firm performance. The traditional theory of capital structure was employed to determine the significance of leverage and macroeconomic variables on firm’s performance. The study makes a comparative analysis of the selected firms which are classified into highly and lowly geared firms setting a leverage threshold of above 10% as being highly geared. Using fixed effect regression estimation model, a relationship was established between performance (proxied by return on investment) and leverage of the firms over a period of ten years. A significant negative relationship is established between leverage and performance.

Aziz and Abbas (2019) attempts to examine the association of different debt financing on firm’s performance in 14 sectors of Pakistan. Secondary data was collected from 14 different sectors in Pakistan Stock Exchange, for the time period of 9 years (2006 to 2014). The results of the study indicated that debt financing have negative but also significant impact on firm performance in Pakistan.

Chechet and Olayiwola (2014) examined capital structure and profitability of the Nigerian 70 listed firms for a period of ten (10) years: 2000 - 2009. Panel data for the firms are generated and analyzed using fixed-effects, random-effects and Hausman Chi Square estimations. Two independent variables which served as surrogate for capital structure were used in the study: debt ratio and equity while profitability as the only dependent variable. The results show that debit ratio is negatively related with profitability, but equity was found to have a direct relationship with profitability.

Ukaegbu, Oino, and Dada (2014) examined 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 nonbank 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.

Olokoyo (2013) examined the impact of leverage (debt’s ratio) on firms’ performance. Empirical results based on 2003 to 2007 accounting and marketing data for 101 quoted firms in Nigeria. The study employed panel data analysis by using fixed-effect estimation, random-effect estimation and a pooled regression model. The usual identification tests and Hausman’s Chi-square statistics for testing whether the fixed effects model estimator is an appropriate alternative to the random effects model were also computed for each model. It also emerged that leverage measures have a positive and highly significant relationship with the market performance measure (Tobin’s Q). The study further reveals a salient fact that Nigerian firms are either majorly financed by equity capital or a mix of equity capital or short-term financing.

Uremadu and Onyekachi (2018) examined the impact of capital structure on corporate performance in Nigeria with special focus on consumer goods firm sector. The ordinary least square technique was used to analyse the data. The results from the study showed a negative and insignificant impact of capital structure on corporate performance of the consumer goods sector of Nigeria. That long-term debt ratio to total asset had a negative and insignificant impact on returns on assets, while total debt ratio to equity also had a negative and insignificant impact on returns on assets. The study concludes that capital structure is not a major determinant of firm performance.

Iavorskyi (2013) investigated the relationship between the capital structure and firm performance. The main hypothesis is that financial leverage positively affects firm activity through disciplining managers, tax shield and signalling effects. Using the sample of 16.5 thousand Ukrainian firms over 2001-2010. The study found that relationship between the leverage and firm performance is actually negative.

Alalade, Oguntodu, and Adelakun (2015) examined the relationship between firms’ capital structure and its strength in improving profitability of firms. The study specifically seeks to investigate the effect of gearing on ROA, ROE and ROCE on selected food product companies in Nigeria between the periods 2009 to 2013. The findings revealed that gearing has no significant effect on ROA, ROE and ROCE.

Cyril (2016) investigated the effect of Nigerian banks’ capital structure on the performance of firms quoted on the floor of the Nigerian stock exchange from 2011 to 2015. Four dependent variables such as return on assets, ratio (ROA), return on equity ratio (ROE), assets turnover ratio (AT) and earnings per share whereas the independent variable is financial leverage. Descriptive statistics and the pooled ordinary least square (POLS) regression analytical method were used for data analysis. The study finds that capital structure has effect on both return on assets and asset turnover of the conglomerates but no effect on return on equity and earnings per share of the firms.

Leon (2013) empirically investigated the relationship between capital structure and the financial performance of listed manufacturing firms in Sri Lanka from 2008 to 2012. Financial performance was measured in terms of accounting profitability by return on equity (ROE) and return on assets (ROA). 30 listed manufacturing firms were selected as sample. The data were analyzed and hypotheses were tested through correlation and regression analysis. The findings revealed that, there was a significant negative relationship between leverage and return on equity. It also emerged that there was no significance relationship between leverage and return on assets.

Akeem, Edwin, Kiyanjui, and Kayode (2014) examined the effect of capital structure on firm’s performance of manufacturing companies in Nigeria from 2003 to 2012. Descriptive and regression research technique was employed to consider the impact of some key variables such as returns on asset, returns on equity total debt to total asset total debt to equity ratio on firm performance. Secondary data was employed using data derived from ten (10) manufacturing companies. Findings reveal that capital structure measures (total debt and debt to equity ratio) are negatively related to firm performance.

Abubakar and Olowe (2019) examined the impact of ownership structure on financial performance of 10 selected quoted firms in Nigeria spanning 2012 to 2018. The data was estimated using multiple regressions. The study reveals that short term debt, long term debt and debt equity showed a positive significant impact.

http://dx.doi.org/10.29322/IJSRP.9.09.2019.p9399

www.ijsrp.org
on performance of the sampled firms in Nigeria. The study concludes that short term, long term debt and debt equity influences performance of firms in Nigeria.

Dada and Ghazali (2016) investigated the capital structure and firm performance of 100 non-financial firms of listed Nigerian companies in the Nigerian Stock Exchange for a period of 2010 to 2014. Data was collated from the financial reports of firms and estimated following panel regression technique. Tobin’s Q and returns on asset are used as measures of firm performance. Results show that assets turnover and, tangible have a positive and significant relationship with Tobin’s Q. Also, risk maintains negative and significant relations with Tobin’s. Moreover, the age of a firm has negative and significant with return on asset and sales growth maintains positive and significant with returns on asset.

Hossain, Khan and Khalid (2019) empirically examined the relationship between capital structure and IT firm’s financial performance in Dhaka stock market, the national exchange of Bangladesh spanning 2013 to 2017. The data was estimated using the panel regression procedure. Findings indicate that capital structure has positive and significant impact on return on asset. Debt and equity ratio exerted uniform impact on the return on asset. The study also found that ownership structure exerted an insignificant impact on return on equity and earning per share.

Salawu, Lawal, Adetunji and Inua (2018) examined the capital structure on the value of 29 listed insurance firms in Nigeria between 2006 and 2014. Historical data was extracted from the Nigerian Stock Exchange factbook and the audited annual report of the selected insurance companies. The data was estimated using panel regression technique. The study found high debt to equity leads to poor performance of the insurance company in Nigeria. The study concludes that to improve the level of financial performance, the debt components of the capital structure should be reduced.

Chechet, Garba and Odudu (2013) examined the determinants of capital structure in Nigerian chemical and paint corporations listed in Nigeria spanning 2005 to 2009. Historical data was extracted from the Nigerian Stock Exchange (NSE) factbook. The data was estimated using the ordinary least square technique. The study reveals tangibility and profitability have significant impact on leverage, while size, growth and age have insignificant impact on leverage. It also shows that tangibility and profitably is negative in Nigerian chemical and paints sector. The effect of tangibility on capital structure suggests a negative relationship between tangibility in the Nigerian chemical plant sector.

Nwude and Anyalechi (2018) evaluated the influence of financing mix on the performance of commercial banks, and the causal link between debt-equity ratio. Data collated were analysed using correlation analysis, pooled OLS regression analysis, fixed effect panel analysis, random effect panel analysis, granger causality analysis, as well as post estimation test such as restricted f-test of heterogeneity and Hausman test. The findings show that debt finance exerted negative and significant impact on return on asset; the debt-equity ratio has positive and significant influence on return on equity. There was neither unidirectional nor bidirectional relationship between capital structure and performance of commercial banks in Nigeria.

Ekwueme and Atu (2018) examined the capital structure and firm’s performance in Nigeria 22 quoted insurance companies spanning 2002 to 2016. The time series data was obtained from annual report and account for the period. The correlation estimates indicate that there is a weak relationship between return on equity and the capital structure of insurance companies in Nigeria. This is the case for return on assets or equity. Also, the firm’s capital structure is significant in determining changes in the firms return on equity value.

Oladele, Omotosho and Adeniyi (2017) investigated the effect of capital structure on the performance of Nigerian listed manufacturing firms spanning 2004 to 2013. This is to determine the overall impact of capital structure on corporate performance of Nigerian quoted firms by establishing the relationship that exists between the capital structure choices of firms in Nigeria and their return on assets, return on equity, sales growth and earnings per share (as proxies to measure corporate performance). Secondary data obtained from the Nigerian stock exchange fact book were utilized. Multiple regression were used as a tool of data

http://dx.doi.org/10.29322/IJSRP.9.09.2019.p9399

www.ijsrp.org
analysis and result of the findings revealed that, capital structure has no significant effect on return on equity but has significant effect on return on assets, earnings per share and sales growth of listed manufacturing firms in Nigeria.

Olajide, Funmi and Olayemi (2017) examined the relationship between capital structure and firm performance Sub Saharan Africa. The Generalized Method of Moments (GMM) for its analysis. Secondary data was collated from using data from Nigerian Stock Exchange fact book from 1996 to 2014. The data was estimated using the Generalized Method of Moments (GMM). The results indicate return on assets, returns on equity, earnings per share and Tobin’s Q show that these explanatory variables has a negative significant relationship debt ratio, the measure of capital structure in Sub Sahara Africa.

Muritala (2012) examined the optimum level of capital structure through which a firm can increase its financial performance using annual data of ten firms spanning a 5 years. The results from the panel regression results provide evidence of a negative and significant relationship between asset tangibility and return on asset as a measure of performance in the model.

Mehmood, Hunjra and Chani (2019) examined the impact of corporate diversification and financial structure on the firms’ financial performance. Data was collated from 520 manufacturing firms from Pakistan, India, Sri Lanka, and Bangladesh. Panel data of 14 years from 2004–2017 estimated. The study found that product diversification and geographic diversification significantly affected the firms’ financial performance. We further found that dividend policy and capital structure had a significant impact on the firm’s financial performance.

Uwuigbe and Olusanmi (2012) examined the relationship between ownership structure and the financial performance of listed firms in the financial sector of the Nigerian economy. To achieve the objective of this study, a total of 31 selected listed firms in the Nigerian stock exchange market were used. Also, the corporate annual reports for the period 2006-2010 were analysed. The study that institutional ownership has a significant positive impact on the performance of the selected listed firms in Nigeria. In addition, the study also revealed that that there is a significant positive relationship between foreign ownership and the firm performance in Nigeria.

Gugong, Arugu and Dandago (2014) examined the impact of ownership structure on the financial performance of 17 listed insurance firms in Nigeria. The study uses panel data for seventeen firms for the period 2001 – 2010. Findings indicate that there is a positive significant relationship between ownership structure and firm’s performance as measured by return on asset and equity.

4. Methodology

4.1 Research Design

The study adopted the Ex-post facto research design to explain the impact of the explanatory variables on the dependent variable in retrospect.

4.2 Source and Type of Data

Historical data was collated from surveying published annual financial reports of corporations. The numeric values collated were time series and cross sectional data.

4.3 Sample of the Study

The sample size of the study is 94 firms that cut across industries in the Nigerian Stock Exchange (NSE). The time scope of the study is a 10-year period, 2007 to 2017.

4.4 Methods of Data Analysis

The panel regression technique was adopted to determine the impact of ownership structure on the financial value of the firm. This technique was used due to the combination of time series and the cross section data. Furthermore, the Hausman specification was used to determine the appropriateness of the fixed effect model or the random effect model estimates.

4.5 Model Specification

The study adopted the model built by Antwi et al., (2012), which is expressed as; firm value = f(equity, debt). This model is slightly modified to capture the equity to debit ratio, the size of the corporation and the returns on equity as a proxy for the value of the firm. The modified model is expressed as follows;

$$ROE = f(DER, DTAR)$$

This is expressed econometrically as;

$$ROE_{it} = a + b_1 DER_{it} + b_2 DTAR_{it} + u_{it}$$

Where;

- ROE = Returns on equity. Dependent variable
- DER = Debt to equity ratio. Independent variable
- DTAR = Debt to total asset ratio. Independent variable
- a = intercept
- b1 & b2 = Coefficients of the explanatory variables
- u = error term
- i = number of subjects
- t = number of observations

5. Data Analysis and Results

Table 5.1: Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>ROE</th>
<th>DER</th>
<th>DTAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>4.32184</td>
<td>62.27233</td>
<td>16.78869</td>
</tr>
<tr>
<td>Median</td>
<td>5.630000</td>
<td>61.69500</td>
<td>16.44000</td>
</tr>
<tr>
<td>Maximum</td>
<td>196.8000</td>
<td>202.9900</td>
<td>22.45000</td>
</tr>
<tr>
<td>Minimum</td>
<td>-696.4300</td>
<td>8.300000</td>
<td>11.43000</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>39.19145</td>
<td>23.93568</td>
<td>2.127748</td>
</tr>
<tr>
<td>Skewness</td>
<td>-11.54350</td>
<td>0.755034</td>
<td>0.469988</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>203.2869</td>
<td>5.892239</td>
<td>2.958490</td>
</tr>
<tr>
<td>Jarque-Bera</td>
<td>1730921.</td>
<td>453.3146</td>
<td>37.69807</td>
</tr>
<tr>
<td>Probability</td>
<td>0.000000</td>
<td>0.000000</td>
<td>0.000000</td>
</tr>
<tr>
<td>Sum</td>
<td>4416.930</td>
<td>63642.32</td>
<td>17158.04</td>
</tr>
<tr>
<td>Sum Sq. Dev.</td>
<td>1568225.</td>
<td>584947.8</td>
<td>4622.385</td>
</tr>
<tr>
<td>Observations</td>
<td>1022</td>
<td>1022</td>
<td>1022</td>
</tr>
</tbody>
</table>

The descriptive statistics indicate that all the observations are equal. The mean values for the variables are – ROE (4.32184), DER (62.27233) and DTAR (16.78869). The Jarque-Bera statistics predict that the variables are not normally distributed. This means that the corporations are distinct and have different corporate profile. The standard deviation figures indicate that ROE is dispersed above the mean and median values respectively, whereas, DER and DTAR are dispersed below and around the centre of the mean and the median values.

http://dx.doi.org/10.29322/IJSRP.9.09.2019.p9399
Table 5.2: Hausman Specification Test Results
Correlated Random Effects - Hausman Test
Test cross-section random effects

<table>
<thead>
<tr>
<th>Test Summary</th>
<th>Chi-Sq. Statistic</th>
<th>Chi-Sq. d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>12.825230</td>
<td>2</td>
<td>0.0016</td>
</tr>
</tbody>
</table>

Cross-section random effects test comparisons:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Fixed</th>
<th>Random</th>
<th>Var(Diff.)</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DER</td>
<td>-0.678596</td>
<td>-0.587628</td>
<td>0.001444</td>
<td>0.0167</td>
</tr>
<tr>
<td>DTAR</td>
<td>-2.347452</td>
<td>3.974635</td>
<td>4.728166</td>
<td>0.0036</td>
</tr>
</tbody>
</table>

The Hausman specification test results indicate that the fixed effect estimates are more appropriate in explaining the impact of capital structure on the value of the firms sampled in this study. This is the case because the chi-square probability value is less than the 5% significance level.

Table 5.3: The Fixed Effect Estimates
Dependent Variable: ROE
Method: Panel Least Squares
Date: 06/17/32  Time: 23:35
Sample: 2007 2017
Periods included: 11
Cross-sections included: 94
Total panel (unbalanced) observations: 1022

<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>DER</td>
<td>0.678596</td>
<td>0.069790</td>
<td>9.723462</td>
<td>0.0000</td>
</tr>
<tr>
<td>DTAR</td>
<td>-2.347452</td>
<td>2.338122</td>
<td>-1.003990</td>
<td>0.3156</td>
</tr>
<tr>
<td>C</td>
<td>85.99021</td>
<td>39.48042</td>
<td>2.178047</td>
<td>0.0297</td>
</tr>
</tbody>
</table>

| R-squared | 0.434466 | Mean dependent var | 4.321849 |
| Adjusted R-squared | 0.366188 | S.D. dependent var | 39.19145 |
| S.E. of regression | 33.57252 | Akaike info criterion | 9.954517 |
| Sum squared resid | 1043707. | Schwarz criterion | 10.41756 |
| Log likelihood | -4990.758 | Hannan-Quinn criter. | 10.13032 |
| F-statistic | 4.898565 | Durbin-Watson stat | 1.889636 |
| Prob(F-statistic) | 0.000000 |                      |         |

The fixed effect estimates indicate that that the adjusted coefficient of determination explained changes in the dependent variable by 0.366188. This means that the explanatory variables of debt to equity ratio and debt to asset ratio caused a 37% variation in the dependent variable. This implies that the model is a good fit. Similarly, the f-statistics validate the goodness of fit of the model since the overall model is statistically significant, as indicated by the f-statistic of 4.898565 with a probability value that is statistical zero. The Durbin-Watson statistics indicate the absence of first order serial autocorrelation.

In addition, the results also indicate that the debt to equity ratio (DER) has an estimated coefficient of 0.678596, t-statistics of 9.723462 and p-value of 0.0000. This connotes that there is a statistically significant impact and relationship between the ratio of debt to equity and the explained variable, returns on equity. This implies that a unit change in debt to equity ratio would cause a 0.678596% significant change in returns on equity of corporations in Nigeria. Similarly, Chechet and Olayiwola (2014) found this variable to have a significant impact on the value of a corporation. The studies by Cyril (2016) and Alalade et al., (2015) this relationship to be insignificant. The empirical findings on this variable follows closely with the traditional approach to capital structure which posit that the ownership structure of a firm is relevant in determining the value of a firm.

The estimates of the second expalantory variable indicate debt to asset ratio (DTAR) having a coefficient of -2.347452, t-statistics of -1.003990 and a p-value of 0.3156. This connotes that debt to asset ratio has a statistically insignificant negative impact and relationship with the returns on equity of corporations in Nigeria. This is the case because the p-value is greater than the 5% tolerable level of significance. The implication of this result is that debt to asset ratio does not determine the value of corporations in Nigeria. Richard (2016) found that this this variable has a positive significant relationship with the value of a firm.

6. Conclusion

The paper examined the ownership structure on the value of firms in Nigeria. More precisely, the objective of the study is to ascertain whether debt to equity ratio and debt to asset ratio has a significant impact and relationship with returns on equity of corporations in Nigeria. To achieve this, the study collated data from ninety-four corporations, spanning 2007 to 2017. Descriptive statistics and panel regression (following the fixed effect model) techniques were used to analyse and estimate the dataset for the study. The results reveal that debt to equity ratio has a significant positive relationship with returns on equity. This implies that debt to equity ratio is a significant positive determinant to the value of corporations in Nigeria. It also emerged that debt to asset ratio has a significant negative relationship with returns on equity. This means that debt to asset ratio is an insignificant negative determinant of the financial performance of corporations in Nigeria. The study recommends the optimization of the ownership structure of corporations so as to maximize the value of the firm and minimize the overall cost of capital.

References


