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Analysis of Debt Financing on Corporate Financial Performance

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Abstract
Series of efforts by managers and finance providers have focused on an appropriate mixture of debt and equity as a wrong mix which would impact on the performance and ultimate survival of the company. This study therefore, investigates the impact of debt financing on the performance of non-financial companies listed in the Nigerian Securities Exchange (NSE). To achieve this objective, secondary data from the annual reports and financial statements of 41 non-financial listed companies for the period of 2015-2018 were used. Panel data regression results revealed that debt financing represented by Total debt ratio has opposing significant impact on performance of companies as measured by ROCE and EPS. The results also revealed that although a negative relationship exists between total debt ratio and performance measures of ROCE and EPS, the relationship with EPS is an insignificant one. The study concludes that debt financing has a significant impact on the financial performance of non-financial companies in Nigeria. The study therefore recommends that managers of listed non-financial companies should reduce the reliance on long term debt as a source of finance in order to enhance performance. Also effective financial management should be put in place by managers which should identify viable investment opportunities, implement and adequately allocate long term debt finance among the competing opportunities. Continuous monitoring is essential to ensure that the financial objective (ROCE) of the company is achieved which in turn would lead to an increase in the value of the company (EPS).

Keywords: Debt Financing, Performance, Manufacturing Companies
JEL Classification: F34, G32, H63, L6

1. Introduction

The importance of financing decisions cannot be over emphasised since many of the factors that contribute to business failure can be addressed using strategies and financial decisions that drive growth and the achievement of organizational objectives. The finance factor is the main cause of financial distress hence, the need for effective financial management which involves the planning and control of the financial affairs of the organization to ensure that it achieves its objectives (particularly its financial objectives).Effective financial management decision involves; how much finance the business needs for its day-to-day operations (working capital financing) and for longer-term investment project (capital investments); where the finance would be obtained from (debt or equity) and whether it should be long term (debentures, loan stocks or finance lease) or short term (Bank overdrafts, trade supplies, operating lease)(Mwangi, Makau&Kosimbei, 2017).

How an organization is financed is of paramount importance to both the managers of the firms and providers of funds. This is because if a wrong mix of finance is employed, the performance and survival of the business enterprise may be seriously affected (Osuji&Odita, 2015).

Capital structure decision is a crucial decision in corporate finance for almost all enterprises in the world. It consists of debt and equities with proportions that differ between firms based on many factors and variables which includes market forces, type of industry, internal policies of the firm, size of the firm, the amount needed, cost of capital, duration, flexibility, repayment, profitability, tax implication of such capital, and impact on financial performance. Both types of financing are associated to varying degree of costs, risk, control and benefits (Gharaibeh, 2018). Advantages in using debt vary; it provides a deduction on corporate tax returns (at least in jurisdictions in which corporate taxes are levied) on the interest paid; it is not dilutive from shareholders standpoint; the cost of debt is generally less than that of equity to the firm. However, using debt financing increases corporate risk level (financing risk). Additionally, the borrowing firm has to meet loan covenants and assets may be held as collateral by creditors. Finally, agency costs between creditors and shareholders may increase.

The risk to shareholders is generally more than that to lenders as payment of debt takes precedence over payment of equity in law in the context of liquidation. More prosaically, bankers collect interest and amortized return of capital before shareholders can get a distribution of net income (if any). Payment of debt is required by law regardless of a company's profit margins. (Mwangi, 2017). Financial managers as well as some other stakeholders (investors and policy-makers) of all firms around the globe conceivably will want to know the proper mix of debt and equity (capital structure) that maximizes a firm's performance. In particular, they need to identify the relationships between financing decisions and company performance. This may vary by country, by business environment, by sector, by company, or even by time.

From the foregoing, it is therefore important to understand how firm's financing choice affects their performance. It is evidently clear that both internal (firm specific) factors and external (macroeconomic) factors could be very important in explaining the performance of firms in an economy and ultimately its survival. While determinants of the choice between debt and equity are well documented and, to a large extent long established, paucity of research exists on the impact of various debt sources on firm value and performance. Thus, theneed to examine the impact of debt financing on the financial performance of listed Nigerian companies. Specifically, the study (i) examined the relationship between the gearing ratio and financial performance of companies in Nigeria and (ii)examined the impact of Interest coverage ratio on the financial performance of companies in Nigeria. The study hypothesized that:

H_O1: There is no significant relationship between Gearing ratio and financial performance of companiesin Nigeria;

H_O2: Interest coverage ratio does not have any significant impact on the financial performance of companies in Nigeria.

The next section is literature review. This is followed by methodology and discussions of findings. The last section covers the conclusion and recommendations of the study.

2. Literature Review

2.1 Conceptual Issues

The term "debt finance" according to Davydov (2017) is used to describe finance where the borrower receives capital, either for a specific period of time (redeemable debt) or possibly in

perpetuity (irredeemable debt); the borrower acknowledges an obligation to pay interest on the debt for as long as the debt remains outstanding; and the borrower agrees to repay the amount borrowed when the debt matures (reaches the end of the borrowing period).Debt financing might be secured against assets of the borrower. When a debt is secured, the lender has the right to seek repayment of the outstanding debt out of the secured asset or assets, in the event that the borrower fails to make payments of interest and repayment of capital on schedule. The secured assets provide a second source of repayment if the first source fails. When a debt is unsecured, the lender does not have this second source of repayment in an event of default by the borrower.

For both secured and unsecured debt, the borrower is usually required to give certain undertakings or 'covenants' to the lender, including an undertaking to make interest payments in full and on time. The borrower will be in default for any breach of covenant, and the lenders will then have the right to take legal action against the borrower to recover the debt.

Debt financing has both advantages and disadvantages on the growth of corporations and for their strategic investments (Nyamita, 2017). The benefits of debt financing include the tax reliefs on interest payments and the reduction of free cash flow problems. However, it can also be a risky form of finance for a company, as Lenders have a prior right to payment, before the right of shareholders to a dividend. If a company has low profit before interest and a large amount of debt, the profits available for dividends could be very small which could result in agency conflicts between shareholders and debt holders and there is always a risk that the borrower will fail to meet interest payments or the repayment of debt principal on schedule. If a borrower is late with a payment, or misses a payment, there is a default on the loan. A default gives the lender the right to take action against the borrower to recover the loan. Therefore, in making debt financing decisions, managers try to create a balance between the corporate tax advantages of debt financing and the costs of financial distress that arise from bankruptcy risks and agency costs (Ebaid, 2012).

Extensive research has been done, trying to give an explanation on how to create the best level of debt financing that takes into account the advantages and the risks, but none has come up with a conclusive theory so far (Nyamita, 2017). However, financial management literature has accepted some conditional theories of debt financing. One of the first researches about the role of debt financing is that of Modigliani and Miller (1958). They claim that owners of the firms are indifferent about their capital structure, because the value of the firm does not depend on debt-to-equity ratio. They considered "an ideal world" without taxes and any transaction costs. However in 1963, Modigliani and Miller (1963) introduced taxes into their model and show that the value of a firm increases with more debt due to the tax shield. Several theory on corporate finance (Agency Theory, static trade-off, Pecking Order Theory, Market timing theory, Signalling Theory, etc.) now exists which embrace this argument.

2.2 Factors Influencing Debt Financing

The factors that influence debt-financing choice remain indefinite despite much theoretical literature and the reassurance of decades of empirical tests (Micah, 2017). Factors that influence debt financing can be categorised into corporation specific factors or macroeconomic factors or country specific factors. Corporation specific factors are those factors which are distinct and peculiar to each individual corporation, while macroeconomic factors are economic factors of the country which have a common effect to all the corporations within the country (Micah, 2017).

Corporation specific factors have remained the main focus of debt financing from the second proposition of Modigliani and Miller (1963) to the current studies (Majumdar, 2015;Jõeveer,

2016 &Micah, 2017). The corporation specific factors influencing debt financing from the above studies, include corporation profitability, corporation size and growth, nature of assets, non-debt tax shields, liquidity and probability of bankruptcy. Other corporation factors, like corporation tax rates, business risk, access to capital markets, the finance manager's gender and the composition of the board of directors, are also considered to have influence on debt financing (Jõeveer, 2016).

Macroeconomic factors are regional or national economic factors which externally influence the corporation's financial strategies, including debt financing decisions. Financial management literature recognizes the important role that macroeconomic factors play in the determination of capital structure decisions of firms (Micah, 2017)

Gross domestic product (GDP), inflation rate, interest rate, financial institutions' activities and industry median has been identified by various researchers as the common macroeconomic factors which have an influence on the debt-financing decisions of corporations (Jõeveer, 2016; Micah, 2017).

2.3 Types of Debt Financing within Corporations

Generally, the investments of corporations can be financed by either internal or external sources of funds. Internal financing is the use of funds that are generated within a corporation, rather than from external sources, for example, undistributed profits and the tax liability savings that result from depreciation. On the other hand, external financing involves getting funds from an outside source without giving goods or services in return. The major source of external finance is debt financing, compared to equity external funds (Nyamita, 2017).

Classification of sources of debt financing can be varied depending on the characteristics of the provider and the debt's maturity period. It can be categorised into public or arm's-length debt (monitored debt) (Nyamita, 2017). Chen, Cheng and Lo (2016), reviewing the same categories, referred to them as public versus private debt.

Public debt financing is the process of obtaining funds from the securities markets by issuing different types of debt stocks of corporations. The debt stock of corporations is currently referred to as bonds or notes, in general. However, in advanced securities markets, such as in America and Europe, the corporation can raise funds through different kinds of bonds or notes depending on the corporation's needs. The common bonds or notes used in these markets are either domestic or international (foreign). Domestic bonds or notes are those issued by the corporation in their local stock markets, while, international bonds or notes, are those issued in the foreign stock markets. Another kind of a public bond can arise through the issuance of a preferred stock, which has similar characteristics as equity stock, but their holders have no voting rights or ownership rights. The bonds issue has not been very prominent in Nigeria, with very few corporations, including state-owned corporations, using this kind of debt financing (Benmelech and Dvir, 2016). Public debt which matures within one year is referred to as either a commercial paper or a discount note. The American stock markets use the term discount note, while, in Europe, Asia and Africa, the term commercial paper is common. Just like the bonds or the notes, the discount notes or commercial papers can be issued by a corporation either in a domestic or a foreign stock market (Nyamita, 2017).

The monitored debt or private debt is that which is provided by the creditor who often demands access to non-public information about the corporation, closely monitors investment decisions, and more efficiently decides whether to liquidate or refinance the corporation during financial distress (Chen, Cheng and Lo 2016). The private debt is, therefore, made up of bank loans and

amounts payable to suppliers of goods and services. In the developed and developing economies, the other common types of the private debt are the derivative financial instruments. The derivative financial instruments common in America, Europe, Asia and part of Africa, are the swaps, options and forward contracts, which are mostly used by the corporations in foreign exchange risk hedging (Nyamita, 2017).

In the debt maturity term perspective, Benmelech and Dvir (2016) have classified debt-financing sources as either long-term debt or short-term debt. Long-term debt is a type of debt which a corporation has an obligation to pay off within a period longer than the corporation's accounting period. On the other hand, short-term debt refers to debt whose holders expect to be repaid within a short run, normally a period less than the corporation's accounting period. Berglöf and Von Thadden (1994) quoted in Nyamita (2017) argued that the principal reason for the kind of separation is that "if the firm is doing well in the short run, the short-termcreditor is repaid, and long-term claim-holders receive all future returns". "If the firm isunable to repay in the short run, the short-term creditor forces the firm to transfer or sellpart of its assets". "The maturity of her remaining claims is extended at the expense of some(not necessarily all) junior long-term claim-holders".This type of classification is also adopted by the International Financial Reporting Standards (IFRS), in reporting the outstanding debt in the corporation's statement of financial position (Nyamita, 2017).

There are some other special types of debt arrangements like lease financing, provisions and deferred tax liability. Lease financing, is a contractual agreement in which a lender, identified on the contract as the lesser, grants the individual (corporation) or group of individuals leasing the product/equipment, identified on the contract as the lessee, the ability to operate the equipment for a given amount of time, identified as the term of leasing, while making specific monthly payments to the lesser or leasing company.

Provision is an amount from profits that has been put aside in a corporation's accounts to cover a future liability, for example, employees' retirement benefit. These funds are always available within the corporations and can be used to finance the activities of the corporation before the actual payments are made. Deferred tax liability is an account on a corporation's balance sheet that is a result of temporary differences between the anticipated and enacted income tax amount, and estimated taxes payable for the current year (Nyamita, 2017). This liability may or may not be realized during any given year, which makes the deferred status appropriate and a way of financing the corporation's assets before it is cleared for the accounts.

2.4 Debt Financing and Financial Performance of Companies

Debt-financing strategy should be designed to increase the rate of return on investment of owners by generating a greater return on borrowed funds than the cost of using the funds. This debt-financing strategy is referred to as financial leverage (Nyamita, 2017). The financial leverage increases the potential reward to shareholders (financial performance) and also increases the potential for financial distress and business failure. Therefore, debt-financing strategy will have a positive effect if return on assets (ROA) is greater than the before-tax interest rate paid on debt. A negative effect will occur when a corporation generates a return on assets (ROA) that is less than the before-tax interest on debt. Studies on the relationship between corporations' financing choice and their performance often conclude that debt financing either hurts or boosts performance (Nyamita, 2017).

A study on corporations in the USA and other countries revealed that debt financing potentially increases the value of corporations through the tax deductibility of interest (Nyamita, 2017). The

use of debt, therefore, reduces the amount of tax to be paid by the firm and increases the return to shareholders, whilst the use of equity does not enjoy such a benefit. In addition to the tax advantage, the cost of debt is generally low as compared to equity due to the lower risk associated with debt, as debt holders have the first claim in the case of insolvency (Nyamita, 2017). Debt also makes planning easy because interest cost on debt is usually fixed, which allows efficient planning as the cost will be known. As long as the interest on debt is lower than the return that can be earned on the funds supplied by lenders, this excess return accrues to the owners of the corporation as their benefit for using debt. Though debt has its fair portion of benefits, it does not come without costs. The major costs associated with debt, as discussed, include bankruptcy, agency costs and loss of flexibility.

2.5 Theoretical Framework

In an attempt to provide a sound theoretical background for this study, this study is anchored on the Static Trade-Off and Pecking Order theories

2.5.1 Static Trade-Off Theory

Static trade-off theory argues that for each company there is an optimal capital structure, with an optimal level of gearing. There is a trade-off between the benefits of taking on more debt and the cost of higher indebtedness. The benefits of taking on debt (rather than equity) are mainly in the tax relief that is obtained on debt interest(Berger and Bonaccorsi di Patti 2009; Tudose 2015). Modigliani and Miller have argued that although the cost of equity rises as gearing increases, the tax relief on debt means that the company's weighted average cost of capital falls as gearing rises. It is therefore beneficial to take in more debt and increase gearing up to the point where the marginal costs of extra debt start to exceed the marginal benefits of extra debt. The marginal costs of extra debt are related to the greater risks from 'financial distress.' If lenders perceive that a company with high levels of debt could be in financial distress (and in danger of failing to make payments of interest and repayments of loan capital on schedule), it becomes much more difficult to raise extra debt finance. The cost of debt might therefore increase substantially to compensate a lender for the high credit risk. The optimal gearing level for a company is reached at a point where the marginal benefits of taking on additional debt capital equals the marginal costs of taking on the extra debt (Lemmon and Zender, 2010). Therefore a very profitable company can take on higher gearing because the marginal costs of financial distress will not become significant until the gearing level is very high.

Thus, according to trade-off theory a positive relationship could be expected between debt level and firm's performance. Some previous studies provide empirical evidence supporting this relationship (Nyamita, 2014).

2.5.2 Pecking Order Theory

Pecking order theory takes a different view of gearing and methods of financing new investments. It was put forward by Myers in 1984 as a challenge to the static trade-off theory. This theory states that companies show preferences for the source of finance that they use. There is an order of preference or 'pecking order'. The source of finance that is preferred most is retained earnings; debt capital is the source of finance second in the order of preference while new equity capital (an issue of new shares) is the least preferred source of finance for investment. The theory basically states that the corporation will use debt financing, rather than issuing equity, when internal cash flow is not sufficient to finance investment expenditure (Myers 2001). The reasons for the pecking order of preferences for sources of finance can be explained by practical considerations. Using retained earnings is convenient. If a company wants to finance a new

investment with equity, it is much simpler and cheaper to use retained earnings than to arrange a new share issue. Retained earnings are also much more convenient than new borrowing. Where a company cannot finance an investment with retained earnings, it will prefer new borrowing to a new issue of shares because borrowing is cheaper. It is cheaper to arrange a loan than to issue new shares. The cost of debt is also less because of the tax relief on interest payments.

Pecking order theory states that the gearing of a company is the result of a series of financing decisions based on these preferences for sources of finance. An optimal level of gearing does not exist, and companies do not try to achieve an optimal gearing level (ACCA, 2015).

2.6 Empirical Studies

Ebaid (2009) carried out a study to establish the relationship between debt level and financial performance of companies listed on the Egyptian stock exchange. The study used return on assets, return on equity and gross profit margin as dependent variables and short-term debt, long-term debt and total debt as independent variables. The results from the study showed that there was a negative impact of short-term debt and total debt on return on assets (ROA). The study also concluded that there was no significant relationship between long-term debt-financing and ROA. Ebaid (2009) also concluded that there was insignificant relationship between total debt, short-term debt and long-term debt and financial performance measured by gross profit margin and ROE.

Ong and Teh (2011) investigated on the capital structure and firms performance of construction companies for a period of four years (2005-2008) in Malaysia. Long term debt to capital, debt to asset, debt to equity market value, debt to common equity, long term debt to common equity were used as proxies as the independent variables (capital structure) while returns on capital, return on equity, earnings per share, operating margin, net margin were used to proxy the corporate performance. The result shows that there is relationship between capital structure and corporate performance.

Amin & Gerald (2014) investigated the impact of debt structure on production efficiency and financial performance of Broadacre farms in Western Australia Using a 10 year unbalanced panel of Broadacre farms in Western Australia. The study relates the impact of long-term debt, short-term debt and tax liability on farm performance measured by input-oriented technical efficiency and return on assets. The study found that farm technical efficiency is positively related to short-term debt, tax liability and capital investment, but negatively related to off-farm income generating activities. Long-term debt has no effect on production efficiency and return on assets. These results are robust to both parametric and nonparametric methods of estimation.

Hlupeko (2013) investigated the impact of debt financing on the operations of SMEs in Masvingo, Zimbabwe. Both qualitative and quantitative research designs were used in the study. The study used a sample of 80 SMEs. Primary data was collected by means of a survey. Secondary data from SMEs records was used in the study. The data was analysed using SPSS 19. The results from the study showed that debt finance had a positive impact on productivity of SMEs. The study also established that firms which received adequate funding from banks improved their productivity. Another finding of the study was that the cost of borrowing was too high to enable firms to borrow adequate amount of required finance investment. The study concluded that a reasonable level of debt in the capital structure of the SMEs helped to improve their productivity.

Khalaf (2013) studied the impact of debt financing on performance of manufacturing companies using a sample of 45 manufacturing companies listed on the Amman Stock Exchange were used

for this study which covers a period of five (5) years from 2005-2009. Multiple regression analysis was applied on performance indicators such as Return on Asset

(ROA) and Profit Margin (PM) as well as Short-term debt to Total assets (STDTA), Long term debt to Total assets (LTDTA) and Total debt to Equity (TDE) as capital structure variables. The results show that there is a negative and insignificant relationship between STDTA and LTDTA, and ROA and PM; while TDE is positively related with ROA and negatively related with PM. STDTA is significant using ROA while LTDTA is significant using PM. The study concludes that statistically, debt financing is not a major determinant of firm performance. It recommends that managers of manufacturing companies should exercise caution while choosing the amount of debt to use in their capital structure as it affects their performance negatively.

Ogebe, Ogebe and Alewi, (2013) investigated the impact of capital structure on corporate performance in Nigeria from 2000 to 2010.The study paid particular attention to macroeconomic variables (Gross Domestic Product and inflation) on firm performance. The study concluded that there was a strong relationship between leverage and corporate performance. The study concluded that there was a significant negative relationship between capital structure and corporate performance.

Akinmulegun (2012) examines the effect of financial leverage on selected indicators of corporate performance in Nigeria. The study employed the econometric technique of Vector Auto Regression (VAR) model. The findings revealed that Leverage shocks exert substantially on corporate performance in Nigeria. In addition, Earnings per Share (EPS) depends more on feedback shock and less on leverage shock. Leverage shocks on Earnings per Share indirectly affect the Net Assets per Share of firms as the bulk of the shocks on the Net Assets per Share were received from Earnings perShare of the firms. Leverage therefore significantly affects corporate performance in Nigeria.

2.7 Research Gap

Majority of the studies reviewed issectorial focused; such as the study of Ong and Teh (2011) which focused on construction companies in Malaysia,Khalaf (2013) focused on manufacturing industries of Nigeria, Hlupeko (2013) concentrated on SMEs in Zimbabwe,Amin & Gerald (2014) focused on agro-based companies in Australia. The findings of the foreign studies are very vital only that the differences in their political and economic situation among the nations may hinder their finding from being applicable to Nigeria and nonetheless, all of the studies reviewed on debt financing in Nigeria has its earliest year as 2011 and most of the studies observed companies with periods of 2000-2011 as their year of assessment. Therefore these study aim to expand the scope of other studies by examining the impact of debt financing on the financial performance of 34 listed companies covering all but the financial sector in Nigeria for a 5 year period from years 2011-2015 to make it more current and relevant in academic discourse.

3. Methodology

This study examined the impact of debt financing on firm's performance in Nigeria. This study used a secondary data; data was collected from the company's annual reports and financial statements. Information relating to companies performance (ROCE and EPS) and Financing decisions variables (long term debt to capital employed ratio and interest) was collected from the sampled company's annual reports and financial statements.The population for this study compriseall 188 companies listed on the Nigerian Stock Exchange (NSE) at 2014. However, the sample size for this study is limited to 34 companies listed on the Nigerian Stock Exchange Market (NSEM). These companies are selected because of the availability of their financial

statements for the periodsof 2011- 2015. Furthermore, financial sector was excluded because of the special regulatory environment in which they operate.For the purpose of empirical analysis, the descriptive statistics, Pearson correlation analysis and the panel data regression technique were used in analysing the relationship between debt financing and companies' financial performance. Haussmann specification test was employed to choose between Random and Fixed Effects models.

The model used established a relationship between debt financing and firm performance in Nigeria. Thus, the model is presented as follows:

FPERF= *f* (GEARING, INTEREST) 1

Equation (i) is re-specified in the form of panel stochastic form model to fit both fixed and random effects models as follows:

ROCE*it*= $\alpha + \beta_1$GEARING*it*, + β_2INTEREST*it*+ ε_{it} 2
EPS*it*= $\alpha + \beta_1$GEARING*it*, + β_2INTEREST*it* + ε_{it}..... 3

Where:
FPERF= Financial Performance
GEARING*it*= Gearing ratio of company *i* at time *t*
INTEREST*it*= Interest cover ratio of company *i* at time *t*
ROCEit= Return on Capital employed of company *i* over time *t*
EPSit= Earnings per share of company *i* over time *t*
$\varepsilon it = v_i + \mu_t$
Where:
εit= Total error term
v_i = Individual effect
μ_t= Time effect
α= Intercept
β= Coefficient to be estimated
i= No of Firms (34 firms)
t= Time period (2011- 2015)

The a priori expectation of the study is that Performance of companies improves as debt financing in the capital structure of the company increases.

4. Result

Table 1: Summary Statistics

Variable	Mean	Maximum	Minimum	Observation
EPS	2.93	28.08	-1.21	170
ROCE	18.31	122.39	-324.06	170
GEARING	27.38	122.62	-62.79	170
INTEREST	32.60	276.62	-11.56	170

Source: Author's Computation, 2018

Table 1 shows the descriptive features of both dependent and independent variables used in the study. It can be seen from the table that the average values of earnings per share (EPS) and return on capital employed (ROCE) recorded by 34 quoted non-financial companies is N2.93 and 18.31% respectively for the periods 2011 to 2015.

During the same periods, the companies obtained an average of 27.38% and 32.60% for gearing ratio (GEARING), and interest coverage ratio (INTEREST) respectively. The minimum and maximum values of all the variables within the five (5) year period are as tshown in the table.

Table 2: Pairwise Correlation

	EPS	ROCE	GEARING	INTEREST
EPS	1.0000			
ROCE	0.1681	1.0000		
GEARING	0.2765	-0.2748	1.0000	
INTEREST	-0.0017	0.0480	-0.0841	1.0000

Source: Author's Computation, 2018

In Table 2, different pairs of relationship between the variables are presented. The table reveals that the level of correlations between variables especially the explanatory variables is low. This shows absence of perfect linear relationship between the explanatory variables. It means that there is no multicollinearity.

Table 3: Haussmann Test

Model	Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f	Prob.
One	Cross-section random	57.43	3	0.0000
Two	Cross-section random	13.59	3	0.0035

Source: Author's Computation, 2018

Table 3 shows the results of Hausman test conducted to choose between the estimates of Fixed Effects and Random Effects techniques. Generally, Random Effects estimates would be preferred in case the null hypothesis that the differences in the estimates of the two methods were not significant. Since the p-value in each of the models indicates significant level at 1%, the underlying null hypothesis could not be accepted. Therefore, we are inclined to conclude that estimates of Fixed Effects technique are suitable and are adopted for the study.

Table 4 Regression Results: Impact of debt financing on return on capital employed (ROCE)

ROCE	Coefficient	Std. Error	t-statistics	Prob.
Constant	-132.2244	25.9804	-5.09	0.000
GEARING	-0.8450	0.1767	-4.78	0.000
INTEREST	0.0008	0.0013	0.63	0.529
R-Squared	0.80			
Adj R-Squared	0.67			
F-statistic	31.83			
Prob(F-statistic)	0.0000			

Source: Author's Computation, 2018

Table 4 shows the results of Fixed Effects Model (FEM) estimated to examine the effect of debt financing on return on capital employed (ROCE). According to the results, a significant although negative relationship is found to exist between ROCE and Gearing ratio which means that a 1% increase in gearing ratio will reduce Companies performance (ROCE) by approximately 85% and this is against the a priori theoretical expectation. Interest Coverage Ratio (.00080) as shown in the table is not statistically significant.

The table shows R^2 of approximately 80% which means that 80% variation in the dependent variable are explained by the independent variables while the remaining 20% is captured by the disturbance variable (Error term). The F-statistics of 31.83 explain the overall goodness of fit of

the model and this shows that the model is of good fit, this is shown through the probability of F-statistics (0.0000). Thus, debt financing has significant impact on return on capital employed (ROCE) of companies in Nigeria.

Table 5 Regression Result: Influence of debt financing on earnings per share (EPS)

EPS	Coefficient	Std. Error	t-statistics	Prob.
Constant	7.9222	1.6315	4.86	0.000
GEARING	-0.0172	0.0111	-1.55	0.124
INTEREST	0.0000	0.0001	0.00	0.771
R-Squared	0.91			
Adj R-Squared	0.72			
F-statistic	25.49			
Prob(F-statistic)	0.0000			

Source: Author's Computation, 2018

Table 5 above shows the results of Fixed Effects Model (FEM) estimated to examine the impact of debt financing on earnings per share (EPS). According to the results, gearing ratio and company performance has a negative but insignificant relationship which means that a 1% increase in gearing ratio will reduce Companies performance (EPS) by approximately 2units and this is against the a priori theoretical expectation. Further, the coefficients of interest coverage ratio (INTEREST) are not statistically significant.

The table shows R^2 of approximately 91% which means that 91% variation in the dependent variable are explained by the independent variables while the remaining 9% is captured by the disturbance variable (Error term).

The F-statistics of 25.49 explain the overall goodness of fit of the model and this shows that the model is of good fit, this is shown through the probability of F-statistics (0.0000). Thus, debt financing has significant impact on earnings per share (EPS) of companies in Nigeria.

4.2 Discussion of Findings

The chapter carried out inferential analysis to establish the impact that debt financing has on financial performance of Nigerian companies. The study results reveals that the independent variables of debt financing (gearing ratio and interest cover ratio) explain and can predict financial performance of the Nigerian companies as measured by ROCE and EPS. The study indicates that gearing ratio has a negative but significant relationship with performance as measured by ROCE, it also has a negative impact on Earnings per share (EPS) albeit an insignificant one.

Interest cover ratio, a proxy of debt financing does not have any significant relationship with the financial performance (ROCE & EPS) of listed companies in Nigeria.

The findings show that the level of long term debt financing within Nigeria non-financial companies has a negative influence on their financial performance. This implies that companies in Nigeria with high financial performance use less of debt financing and more of either internally-generated funds or more of equity. It may also imply that more use of debt financing in Nigerian companies reduces financial performance either through high costs of borrowings or failure of managers to either identify viable investment opportunities in which to combine and allocate such funds to or inability to plan, organize, direct and control the resources (debt financing) for the purpose of producing output.

The findings of this study is in line with the work of Akinmulegun (2012), Ogebe, Ogebe, and Alewi (2013), Mwangi, Makau, and Kosimbei (2014) and Nyamita(2014) which supports the notion that debt financing has a statistical significant relationship with financial performance. The findings also meets prior expectation that debt financing impact significantly on the financial performance of Companies in Nigeria. It also showed a strong support for the pecking ordertheory which suggests that corporations with high financial performance generate more earnings that are used for self-financing, enabling them to go for less debt financing (Lemmon and Zender 2010). This implies that companies in Nigeria with better financial performance have less debt levels, since they use self-generated resources to finance their investments.

5. Conclusion and Recommendation

The study concludes that debt financing as measured by gearing ratio has a significant impact on financial performance as measured by Return on capital employed (ROCE) and Earnings per share (EPS). On the whole, it can be concluded that debt financing has significant impact on the financial performance of listed companies on the Nigerian Stock Exchange (NSE).Therefore, based on the study findings, the following recommendations are made: Government should regulate the financial sector through various monetary and fiscal policies in order to reduce the cost of borrowing so that profitable companies that want to expand or diversify and in need of additional funds can assess affordable loans; Corporate managers should reduce financial leverage in order to enhance performance; Effective financial management should be put in place by managers which would identify viable investment opportunities; plan, control and adequately implement and allocate long term debt finance among the competing opportunities; and Continuous monitoring is essential to ensure that the financial objective (ROCE) of the company is achieved which in turn would lead to an increase in the value of the company (EPS).

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