Effect of Debt-Equity Financing on Firms Performance in Nigeria

Akaji Orji
Department of Accountancy,
Faculty of Management Sciences,
Chukwuemeka Odumegwu Ojukwu University,
Igbariam Campus

Nwadialor E. O. Ph.D
Department of Accountancy,
Faculty of Management Sciences,
Chuwkuemeka Odumegwu Ojukwu University,
Igbariam Campus'

Agubata, N. Ph.D
Department of Accountancy,
Faculty of Management Sciences,
Chuwkuemeka Odumegwu Ojukwu University,
Igbariam Campus.

Abstract
The study examines the effect of Debt Equity Financing on Performance of Firms in Nigeria. The study measured debt equity financing using the variables of equity financing(EF) and debt equity financing (DEF) while Firms Performance on the other hand was measured using Return on equity (ROE). Two hypotheses were formulated to guide the investigation and the statistical test of parameter estimates was conducted using OLS Regression Model. The research design used is Ex Post Facto design and data for the study were obtained from the NSE Factbook, Annual Reports and Accounts. The findings of the study show that Debt Equity Financing has significant and positive effect on Firms Performance in Nigeria at 5% level of significance. The study concludes that debt-equity financing improves firm's performance over the years. Based on the findings of the study, it was recommended that Firms should try to finance their investment activities with debts and equity and consider either debt or equity as a last option. Thus implies that, the study strongly recommends that corporate firms in Nigeria should use more of debt equity capital than either debt or equity capital in financing their business activities.

Keywords: *Debt Equity Financing, Equity Financing, Return on Equity*

1.1 Introduction

The importance of capital structure decision as it concerns growing a company's value cannot be overemphasized. Capital structure is the mix used by a company in financing its business operations. It is very crucial for the survival of any firm and the financial managers of such firms are responsible for the capital structure mix decision (Ohaka, Edori & Ekweozor, 2020).

As cited in Omaliko and Okpala (2020), financing mix is one of the hotly debated finance topics or theories among the studies of researchers and scholars. Its importance derives from the fact that capital structure is closely related to the ability of firms to fulfill the needs of various stakeholders. Financing mix represents the major claims on firm's assets. This includes the different types of both equities and liabilities.

It has been a traditional concept to divide the capital structure between debt and equity. How much debt and how much of equity thus constitutes the critical question for financial managers. It seems certain factors need to be examined before deciding the structure of capital for any organization. The structure could change over time but at any given point, adjustment may be made depending on whether the weight of debt is low or high. More debt could increase shareholders risk but when the conditions are right, it could increase their returns substantially. If debt-equity is well structured, the cost of capital could increase which will lead to increase in the value of the firm (Aziz & Abbas, 2019).

Despite active theoretical and empirical research, what determines corporate performance in regards to companies financing mix remains an empirical question in corporate finance. Thus, theory provides conflicting predictions on whether debt or equity or optimal use of both promotes firm performance which calls for further investigation and clarifications and more importantly, no study had concentrated on health care sector of Nigerian Stock Exchange.

This in indeed a problem considering the volatile economic conditions and environment the Nigerian companies are made to deal with. Furthermore, if the choice of debt and equity is not critically considered by the manager, using a wrong choice can easily lead the firm to insolvency and liquidity. Therefore the problem of this study is to determine the optimum capital structure that will enable Nigerian companies work more efficiently. Furthermore, most of the previous related studies carried out had flaws as we shall see in the course of reviewing relevant literature. As a result of this, the studies give conflicting results as regards the impact of the debt equity mix on corporate performance. Thus, this study is an attempt to finally put to rest this debate and determine categorically the extent of this impact.

Based on these observations, the present study is established to examine the impact of debt-equity financing on firm's performance in the Oil & Gas Sector, Health Care Sector and ICT Sector of Nigerian stock Exchange through the use of current data.

1.2 Objective of the Study

The aim of this study is to examine the effect of debt-equity financing on firms performance in Nigeria. The specific objectives include; to

1. Determine the effect of debt Equity Financing on Firms Performance in Nigeria.
2. Examine the effect of Equity Financing on Firms Performance in Nigeria.

1.3 Research Questions

The research questions that are set to this paper include to:

1. What is the effect of Debt Equity Financing on Firms Performance in Nigeria?
2. To what extent does Equity Financing influence Firms Performance in Nigeria?

1.4 Research Hypothesis

In order to direct the direct flow of this study, the following hypothesis were formulated in line with objectives of the study

H_0: Debt Equity Financing has no significant effect on Firms' Performance in Nigeria.

H_0: Equity Financing has no significant effect on Firms' Performance in Nigeria.

2.0 Review of Related Literature

2.1.1 Debt Equity Financing

Debt to equity ratio refers to the measure of long term solvency of an organization. This ratio is a financial and liquidity estimate which shows the percentage of the firm's fund that come from creditors and investors (Nzotta, 2018). It also estimates the strength of the organization to meet its long term business obligations as it comes to time. The debt to equity ratio can be defined mathematically as debt measured by equity.

According to Omaliko and Okpala (2020), a firm's debt equity financing refers to the mix of its financial liabilities. It has been an important issue from the strategic management standpoint since it is linked with a firm's ability to meet the demands of various stakeholders as stated elsewhere already in this work. Financing mix is the most significant discipline of company's operations. It's a decision is a vital decision with great implication for the firm's sustainability

2.1.2 Equity Financing

Equity capital represents the shareholders' interest in the firm's assets after liabilities are deducted and can take the form of common stock (share capital), preferred stock, share premium, revenues reserves, capital surplus, retained earnings and reserves in financial statements (Choi, 2014). Share capital refers to funds raised by a firm through issuance of shares in exchange for cash or other consideration and consists of ordinary shares and preferred stock (Uremadu & Efobi, 2012).

Pandey (2009) observed that a company should plan its capital structure to maximize the use of funds and to be able to adapt more easily to the changing conditions. It is therefore important that as the modern companies embrace themselves in conducting their business in a highly complex and competitive business environment, they should consider what impact capital structure decision will have on the overall profitability of their respective companies. Mesquita and Lara (2003), in their study found that the relationship between rates of return and debt indicates a negative relationship for long-term financing.

2.1.3 Firms Performance

Performance is the most imperative measure for profitable of a company (Matar & Eneizan, 2018). Financial performance predominantly shows the sector of a business outcome as well as results, showing the overall financial health condition of the business sector over a particular time period (Naz, Ijaz & Naqvi, 2016).

According to Omaliko, Okeke and Obiora (2021) performance is usually represented by different financial ratios such as total asset growth, loan growth rate and earnings growth rate. The performance of management is habitually a narrative expression through subjective evaluation of management systems, organizational discipline, control system, quality of staff and many more.

2.2 Theoretical Framework

Agency Cost Theory

Jensen and Meckling (1976) built on the work Miller and Modigliani (1958) by developing agency costs theory. They assume that agency problems arise when shareholders (principals) and managers agents) have divergent objectives or conflict of interest. That is, managers not accommodating the interests of shareholders. To monitor managers and constrain their excesses, shareholders may incur certain costs, called agency costs. Agency costs are costs meant to justify whether managers act consistently in line with contractual agreement of firm with the shareholders (Jensen & Mackling, 1976). For an optimal debt level in the capital structure to be achieved, agency costs arising from the different interests of managers, debt holders and shareholders should be minimized (Jensen & Mackling, 1976).

2.3 Empirical Review

Bassey, Aniekan, Ikpe and Udo (2013), on effect of debt equity financing on firms performance explored test tool of Ordinary Least Square regression and descriptive statistics and revealed that only growth and educational level of firms owners were significant determinants of both long and short term debt ratios, assets structure, age of the firms, gender of owners and export status impacted significantly on long term debt ratios, while business risk, size and profitability of firms were major determinants of short term debt ratio for the firms under investigation.

Simon-Oke and Afolabi (2011) employed the panel data regression model and revealed in their study a positive relationship between firms' performance and equity financing as well as between firms' performance and debt-equity ratio. There is also a negative relationship that exists between firm's performance and debt financing due to high cost of borrowing in the country. The study used Debt financing, equity financing, debt equity ratio as a proxy for capital structure and profitability index as measures of performance.

Ahmad (2012) investigated the impact of medium-term debt on firm performance by analyzing the relationship between operating performance of Malaysian firms, measured by return on asset (ROA) and return on equity (ROE) with short-term debt (STD), long-term debt (LTD) and total debt (TD). Four variables found by most literatures to have influence on firm operating performance, namely, size, asset grow, sales grow and efficiency, are used as control variables. This study covers two major sectors in Malaysian equity market which are the consumers and industrials sectors. 58 firms were identified as the sample firms and financial data from the year 2005 through 2010 are used as observations for this study, resulting in a total numbers of observations of 358. A series of regression analysis were executed for each model. Lag values for the proxies were also used to replace the non-lag values in order to ensure that any extended effect of capital structure on firm performance is also examined. The study finds that only STD and TD have significant relationship with ROA while ROE has significant on each of debt level. However, the analysis with lagged values shows that none of lagged values for STD, TD and LTD has significant relationship with performance.

Specifically, Nasiru (2012) study twenty-eight companies listed on the Palestinian Stock Exchange between 2006 to 2010 through the use of accounting and market performance measures (ROE, ROA, EPS, Market value to book value of equity and Tobin's Q) and four capital structure measures (STD, LTD, Total debt to total assets and Total debt to total equity). The results showed a positive significant relationship between firm's capital structure and their performance.

Dadson and Jamil (2012) examined the relationship between capital structure and performance of listed banks in Ghana from 2000 to 2010. The results revealed that banks listed on the Ghana Stock Exchange are highly geared and this is negatively related to the banks' performance. The regression result also revealed that capital structure is inversely related to performance of the listed banks in term of ROE and Tobin's Q.

This findings is also similar to that of Cheng (2019) evaluates the effects of debt and equity financing on corporate performance among the Chinese listed firms' revealing that capital structure have significantly negative consequence on corporate performance. Henceforth, the study shows that it is risky for companies to depend entirely on either debt or equity for raising capital but it is far better to raise capital by both methods, with each employed together, at the same time. This method is better as it affords the benefit of one method offsetting the problems of the other and vice versa.

On the other side, some empirical studies have shown no significant relationship or mixed evidence between capital structure and firm performance. For instance, Chury (2010) examined the impact of capital structure on the value of firm using 77 nonfinancial firms from four different key sectors of Bangladesh capital market. The study conclude that the best use of wealth of shareholders needs a perfect mixture of debt and equity, while cost of capital has a negative correlation in this decision and it has to be as minimum as possible. It was further seen that by changing the capital structure composition a firm can increase its value in the market.

Similar results were documented by Abudul (2012) on effect of financing mix on firms performance of listed firms in Bangladesh. The study used ROE, ROA, EPS, market value to book value of equity and Tobin's Q performance measures using OLS show positive and significant relationship with firms capital structure

The study of Raheem (2016) in China used regression model and found significant positive relationship with capital structure while ROA and ROE has no significant relationship with capital structure.

In addition, Patrick (2013) also attempted to investigate the impact of capital structure on firm performance in Nigeria, particularly to examine whether private sector firms of Nigeria apply the traditional theory of capital structure in the determination of their capital structure. The results of the regression revealed that leverage is negatively correlated to firm's performance (ROI). Strong evidence was found in support of the traditional theory of capital structure which asserts that leverage is a significant determinant of firms' performance. However, surprisingly inconsistent to the traditional theory of capital structure, it was found that the optimal amount of debt employed in the capital structure of selected has a negative effect on firm's performance. They believe that the reason for the negative effect of optimal amount of debt on firm's performance is because of the compounding nature of interest rates on debt of Nigerian private sector firms. The study also makes a comparative analysis by classified firms into highly and lowly geared firms setting a leverage threshold of above 10% as being highly geared. The result of the comparative analysis shows that high gearing has a larger impact on firm's performance compared to low gearing. In the highly geared firms a 100 percent increase in leverage reduces firm's performance by 17%, but for the lowly geared firms it reduces firm's performance by 15 percent. This indicates higher levels of debt are correlated with lower firm performance. However, it was found that highly geared firms have better performance in terms of value than the lowly geared firms, and the authors believe as it is probably because of the size of firm's investment.

Similarly, Osuala (2010) used OLS and found that capital structure has a significant and negative relation with performance among Nigerian firms.

Pouraghajan (2012), carried out a study of the impact of capital structure on the financial performance of companies listed on the Tehran Stock Exchange. For this purpose, they tested a sample of 400 firm-years among Companies Listed on the Tehran Stock Exchange in the form of 12 industrial groups during the years 2006 to 2010. Variables used to measure the financial performance of companies are return on assets ratio (ROA) and return on equity ratio (ROE). They discovered, from the results, that there is a significant negative relationship between debt ratio and financial performance of companies, and a significant positive relationship between asset turnover, firm size, asset tangibility ratio, and growth opportunities with financial performance measures. However, the relationship between ROA and ROE measures with the firm age is not significant. In addition, the research results show that by reducing debt ratio, management can increase the company's profitability and thus the amount of the company's financial performance measures and can also increase shareholder wealth Based on the differing conclusions of the various researchers above, this topic, capital structure and firm performance will continue to attract attention of scholars and researchers as no definite conclusion has been reached concerning the impact of capital structure on firm performance.

Abdul and Badmus (2017) assessed the relationship between leverage (equity) and debt ratio on return on assets of chemicals and paints firms quoted in the Nigerian stock exchange using the ordinary least square (OLS) on a sample of three firms from 2000 – 2009. They concluded that the equity finance had a significant and positive impact on ROA while the DR reported a negative and insignificant relationship on the performance measures. Therefore, firms in the sector should employ more equity finance and avoid more debt.

Rehman (2013) studied the relationship between financial leverage and financial performance of quoted sugar companies in Pakistan. The results revealed a positive relationship between the debt-equity ratio on the ROA and sales growth while it was negative with the earning per share, net profit margin and return on equity. This negative relationship between debt equity ratio and earnings per share (EPS) support the fact that as debt increases, the interest payment will also rise, so that EPS will decrease.

3.0 Methodology

The research design used is Ex Post Facto Design. Ex Post Facto Design was used in the study in order to examine the effect of debt-equity financing on firms performance in Nigeria with reference to Oil and Gas Sector, Health Care Sector and ICT Sector of NSE.
Out of 31 firms that formed our sample size, 5 firms have empty financial information within the period under study (*MTN Nigeria Comm Plc, Airtel Africa Plc, Omatek Ventures Plc, Evans Medical Plc, Juli Plc, and Nigerian German Chemical Plc)* which was removed. Based on this, a total of 26 firms formed our sample size with 208 observations with data spanning from 2013-2020.
Data for the study were obtained from the NSE Factbook and annual reports and accounts of the firms. The collected data was analyzed using OLS Regression operated with SPSS V.20

3.1 Operationalization and Measurement of Variables

The dependent variable in this study is liquidity and profitability and it were proxy using the variables as shown on the table below:

Table 1: Variable Measurements

S/N	VARIABLES	FORMULA	Apriori Expectations
	Independent		
1	Debt Equity Financing	**DEF:** Debts/ Equity	Omaliko and Okpala (2020).
2	Equity Financing	**EF:** Equity/ Assets	Nwude and Anyalechi (2018).
	Dependent		
1	Performance	**PERF: ROE**	Omaliko, Nwadialor & Nweze (2020)

Source: Empirical Review (2021).

3.2 Model Specification

In line with the previous researches, the researcher borrowed and adopted the Model of Nwude and Anyalechi (2018) in determining the effect of debt-equity financing on performance of firms in Nigeria. This is shown below as thus:
Nwude and Anyalechi (2018): ROE = $\beta_0 + \beta_1 EF + \beta_1 DEF + \mu$

Where:
ROE: Return on Equity
EF: Equity Financing
DEF: Debt Equity Financing

4.1: Test of Hypotheses

OLS Regression Model was developed to test the linear relationship between the dependent and independent variables. It was operated using SPSS version 20 as shown in the table 2 below:

Table 2: Result on Effect of Debt-Equity Financing on Firms Performance in Nigeria.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	452.672	2	226.336	38.499	.015[b]
	Residual	1205.307	205	5.879		
	Total	205.979	207			

a. Dependent Variable: ROE

b. Predictors: (Constant), DEF, EF

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.889	.082		2.300	.022		
	EF	.700	.000	.057	3.807	.040	.974	1.026
	DEF	.673	.012	.019	4.265	.021	.974	1.026

a. Dependent Variable: ROE

4.2: Discussion of Findings

The result of the analysis of the study using OLS Regression Model operated with SPSS version 20 is expressed as follows:

H_{01}: Debt Equity Financing has no significant effect on Firms Performance in Nigeria.

In view of the above analysis as shown on table 2, the result shows that there is a significant and positive relationship between Debt Equity Financing and Firms Performance in Nigeria with a p-value of 0.021. This could be verified with the coefficient of correlation of 67.3% which indicates that increase in Firms debt equity financing as other variables is constant increases firms return on equity by 67.3%.

Based on this, we rejected the null hypothesis and accepted alternate hypothesis which contends that Debt Equity Financing has significant effect on Firms Performance in Nigeria.

This agrees with the apriori expectations of bassey et al (2013), Simon-Oke and Afolabi (2011) and Nasiru (2012) who found significant and positive relation between debt equity financing and firms performance.

H_{02}: Equity Financing has no significant effect on Firms Performance in Nigeria.

In view of the above analysis as shown on table 2, the result shows that there is a significant and positive relationship between Equity Financing and Firms Performance in Nigeria with a p-value of 0.040. This could be verified with the coefficient of correlation of 70% which indicates that increase in firms equity financing as other variables is constant increases firms return on equity by 70%.

Based on this, we rejected the null hypothesis and accepted alternate hypothesis which contends that Equity Financing has significant effect on Firms Performance in Nigeria.

This is in consonance with the findings of Reham (2013) and Abdul and Badmus (2017) who established a relation between equity financing and firms performance.

5.1 Conclusion

The study from the statistical analysis concludes that Debt-Equity Financing has significant and positive effect on Firms Performance in Nigeria.

5.2: Recommendation

Based on findings of the study, the following recommendations are suggested:

1. Firms should try to finance their investment activities with debts and equity and consider either debt or equity as a last option. Thus implies that, the study strongly recommends that corporate firms in Nigeria should use more of debt equity capital than either debt or equity capital in financing their business activities
2. Since positive relationship was found between the equity financing and firms performance, it was recommended that firms should be equity intensive since equity intensive firms make higher profits.

References

Abdul, J., & Badmus, O. (2017). Effect of Leverage on Firm Performance in Nigeria: A Case of Listed Chemicals and Paints Firms in Nigeria. Global Journal of Management and Business Research: Accounting and Auditing, 17 (2), 2249-4588.

Ahmad, Z. (2012). Capital structure effect on firm performance: focus on consumers and Industrial sectors on Malaysian Firms, International Review of Business Research Papers, 8(5): 137

Aziz, S. & Abbas, U. (2019). Effect of debt financing on firm performance: A study on non financial sector of Pakistan. Open Journal of Economics and Commerce, 2(1), 8-15

Bassey, C., Aniekan, B., Ikpe., & Udo, L. (2013). Effect of financing mix on financial performance of firms in Nigeria. Australasian Accounting, Business & Finance Journal, 1(4), 40-61

Cheng, J. J. (2019). Determinants of Capital Structure of Chinese Listed Companies. Journal of Business Research, 57, 1341-1351.

Choi, Y. (2014). Making the Poor Pay for the Rich: Capital Account Liberalization and Reserve
Accumulation in the Developing World. Globalizations,11(6), 809–825.

Chury, M. (2010). Capital Structure and Investment Behaviour of Malaysian Firms in the 1990s: A study of Corporate Governance Before the Crisis. Corporate Governance. An International Review, 11(1), 25–39.

Dadson, A., & Jamil, B., (2012). Capital Structure and Performance of Listed Banks in Ghana.
Global Journal of Human Social Science, 12(5),57-62.

Jensen, M.C., & Meckling, W.H. (1976), Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of Financial Economics, 3(4), 305-360.

Matar, A. & Eneizan, B. M. (2018). Determinants of financial performance in the industrial firms: Evidence from Jordan. Asian Journal of Agricultural Extension, Economics and Sociology, 22(1), 1-10

Modigliani, F. & Miller, M. (1958). The Cost of Capital, Operation Finance and Theory of Investment. American Economic Review,48, 261-297.

Nasiru, E. (2012). Capital structure and firm's performance in Palestine, Intl Journal of Management, 5(8), 1001-1011

Naz, F., Ijaz, F. & Naqvi, F. (2016). Financial performance of firms: Evidence from Paskistan cement industry. Journal of Teaching and Education, 5(1), 81-94

Nwude, E., & Anyalechi, M. (2018). Effect of capital structure on performance of firms in Nigeria, Journal of Finance, 56, 34-43

Ohaka, J., Edori, D., & Ekweozor, U. (2020). Debt financing and firms performance in Nigeria,
Account and Financial Management Journal, 5(2), 2106-2113

Omaliko, E., & Okpala, N. (2020). Effect of financing mix on financial performance of health care firms in Nigeria, International Journal of Banking and Finance Research, 6(3), 63-77

Omaliko, E., Nwadialor, E., & Nweze, A. (2020). Effect of non-financial disclosures on performance of non-financial firms in Nigeria, Journal of Accounting and Finance, 5(1), 16-38

Osuala, O.M. (2010). An empirical examination of the relationship between capital structure and the financial performance of firms in Nigeria, Euro Economica, 1(31), 57- 65

Pandey, I. M. (2009). Financial management, New Delhi, Vikas

Patrick, A. (2013). The impact of capital structure on firms' performance in Nigeria", Munich\
Personal RePEc Archive, Paper No. 45986, posted 8, 20:10 UTC.

Pouraghajan, L. (2012). Impact of capital structure on financial performance of companies listed on Tehran Stock Exchange, International Journal of Scientific Management, 23, 78-91

Raheen, M. (2016). What do we know about capital structure in China? some evidence from\ international data, Journal of Finance, (50), 1421-1460.

Rehman, S. (2013). Relationship between financial leverage and financial performance: empirical evidence of listed sugar companies of Pakistan. Global Journal of Management and Business Research Finance, 13 (8), 33- 40.

Simon-Oke, M., & Afolabi, M. (2011). Effect of capital structure on firms profitability, Journal
of Empirical Literature, 4(7), 78-84

Uremadu, S., & Efobi, R. (2012). The Impact of Capital Structure and Liquidity on Corporate Returns in Nigeria: Evidence from Manufacturing Firms. International Journal of Academic Research in Accounting, Finance and Management Sciences 3(2), 1-10.

Acknowledgement

Our appreciation goes to all the people that contributed to the success of this research. Also, all the staff of Accountancy are highly acknowledged for their contributions to this work.