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Financial Leverage and Performance of Quoted Manufacturing Firms in Nigerian Exchange Group

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Abstract
This study is on financial leverage and performance of quoted manufacturing firms in Nigerian exchange group, the broad objective of the study is to ascertain the effect of financial leverage on the financial performance of quoted manufacturing firms in Nigeria, while specifically, the study seeks to ascertain the effect of Debt-to-Equity Ratio on Return on Equity of quoted manufacturing firms in Nigeria and; and to ascertain the effect of Long-Term Debt on Return on Asset of quoted manufacturing firms in Nigeria. The study adopted ex-post facto research design. The study population is made up of five (5) selected manufacturing firms listed on Nigeria exchange group. The selected firms are Cadbury Nigeria Plc, Flour Mill Nigeria Plc, Nigerian Breweries Plc, Honeywell Nigerian Plc and Dangote Sugar Plc. Secondary data was used for the study. Linear regression analysis with the aid of SPSS 20.0 software was used to analyzed the data. The result of test of hypothesis revealed that there is a significant effect of Debt-to-Equity Ratio on Return on Equity of quoted manufacturing firms in Nigeria; and there is no significant effect of Long-Term Debt on Return on asset of quoted manufacturing firms in Nigeria. The study concludes that financial leverage when measures with debt to equity have a significant effect on financial performance of quoted manufacturing firms while financial leverage when measured with long term debt does not have significant effect on financial performance of quoted manufacturing firm in Nigeria, and recommend that manufacturing firms in Nigeria should strategically utilize debt financing alongside equity capital prudently to optimize their return on equity by ensuring that debt levels do not exceed optimal thresholds, as excessive leverage could increase financial risk and threaten the firm's long-term sustainability.
Keywords: *Financial leverage, Debt to equity, Long term debt, Return on asset, and Return on equity*

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I. Introduction

The financing decision is a critical component of corporate financial strategy, as it determines how a firm balances the use of debt and equity to fund its operations. This mix, often referred to as capital structure**,** has been a central subject in corporate finance theory for decades (Modigliani & Miller, 2019). A key element of this structure is financial leverage**,** which refers to the use of borrowed funds to increase the potential return on equity. While moderate use of debt may enhance shareholder value by providing tax advantages and disciplining management (Myers, 2001), excessive debt can expose firms to financial distress, especially in volatile economic environments like Nigeria (Salawu, 2019). The appropriate level of debt a company employs to establish an optimal capital structure significantly impacts its financial performance (Akhtar, Yusheng, Haris, Ain, & Javaid 2021). Also, the traditional capital structure encourages firms to use debt in their capital structure to a specific limit because the use of debt leads to better business performance. Additionally, using debt exposes a company to significant risk because failure to make debt payments results in the transfer of ownership from shareholders to bondholders or creditors (Sahminan, 2021).

In capital-intensive industries such as manufacturing, leverage plays an even more significant role due to the high cost of fixed asset acquisition and the need for continuous reinvestment in operations. Manufacturing firms often resort to debt financing to bridge capital gaps and exploit growth opportunities (Akintoye, 2018). However, the performance implications of financial leverage vary depending on how it is measured and managed. To understand this relationship, scholars commonly use proxies such as Debt-to-Equity Ratio (D/E)**,** Debt Ratio (DR)**,** Long-Term Debt to Total Assets (LTD/TA), and Short-Term Debt to Total Assets (STD/TA) (Uwuigbe et al., 2019). These metrics provide a more detailed view of a firm's exposure to financial risk and its capacity to manage debt obligations relative to its asset base and equity capital.

In Nigeria, the manufacturing sector remains a cornerstone of national development due to its contributions to employment, value addition, and industrialization. Nevertheless, the sector faces chronic challenges such as high interest rates, inflation, erratic power supply, exchange rate volatility, and regulatory uncertainty (Adenikinju & Oyinlola, 2020; CBN, 2023). These conditions often compel manufacturing firms to

depend on external financing, particularly debt, to meet operational and expansion needs. As a result, financial leverage becomes both a necessity and a potential risk factor affecting firm's financial performance.

A firm's financial performance is an estimation of what has been achieved by the firm over a given period of time in monetary terms. The importance of measuring a firm's financial performance is to obtain vital information for the various investors and stakeholders on its liquidity, solvency, profitability and efficiency. According to Almajali et al, (2012), the main factors that influence financial performance of an entity include liquidity, leverage, size of the firm and management's ability i.e. highly competent managerial staff. Theoretically, the relationship between financial leverage and firm performance is informed by multiple paradigms. Financial leverage can enhance a firm's financial performance by enabling it to invest in profitable ventures using borrowed capital, which would not be possible with equity alone. However, the advantages of leverage are counterbalanced by the risks it introduces. As noted by Sugumar (2023), when firms use debt financing, they must generate returns greater than the cost of the debt (interest payments), otherwise, the firm risks insolvency or bankruptcy. This aligns with the trade-off theory, which posits that there is an optimal level of leverage where the marginal benefit of debt (in terms of tax shields and growth opportunities) is equal to the marginal cost of financial distress (Farooq, Bannan, & Cherian, 2023). On the other hand, excessive leverage increases the firm's financial risk, which can negatively affect its financial performance. According to Mahmood (2023), a high debt-to-equity ratio can elevate the likelihood of financial distress, especially in volatile markets. Moreover, the pecking order theory, as outlined by Brealey et al. (2018), suggests that companies prioritize internal financing and resort to debt only when internal funds are insufficient as excessive reliance on debt can strain the company's financial stability, especially in uncertain economic environments (Hoshi, Kashyap, & Scharfstein, 2004).

The performance of Nigeria's manufacturing firms has continued to decline despite various financing interventions and policy supports. A major challenge lies in how these firms structure their finances, particularly their use of debt. In a bid to remain competitive and fund capital-intensive operations, many quoted manufacturing firms increasingly depend on debt financing. However, in a volatile economy characterized by rising interest rates, currency depreciation, and poor infrastructure, such reliance on leverage could pose significant risks to their financial health.

Although the theoretical frameworks on capital structure offer insights into the role of leverage in enhancing firm performance, empirical findings within Nigeria's manufacturing sector present a fragmented narrative. Some studies suggest that higher leverage, especially when measured using proxies like the Debt-to-Equity Ratio or Debt Ratio, enhances profitability by reducing agency costs and improving tax efficiency. Others, however, argue that excessive leverage particularly short-term and long-term debt as proportions of total assets erodes performance and increases financial vulnerability. Some studies report a positive relationship between leverage and firm performance (Abor, 2005; Akintoye, 2008), while others find a negative or non-significant effect (Ogebe et al., 2013; Uwalomwa et al., 2015), indicating that contextual variables play a vital role.

Moreover, most existing studies fail to disaggregate financial leverage using multiple proxies or overlook the different implications of short-term versus long-term debt on firm performance indicators like ROA, and ROE. This creates a significant knowledge gap in understanding how specific dimensions of financial leverage affect the performance of quoted manufacturing firms in Nigeria. This study, therefore, addresses this problem by using a multi-proxy approach to measure financial leverage and assess its effect on financial performance of quoted manufacturing firms in Nigeria.

Objective of the Study

The broad objective of the study is to ascertain the effect of financial leverage on the financial performance of quoted manufacturing firms in Nigeria, while specifically, the study seeks to

a. ascertain the effect of Debt-to-Equity Ratio on Return on Equity of quoted manufacturing firms in Nigeria and;

b. ascertain the effect of Long-Term Debt on Return on Asset of quoted manufacturing firms in Nigeria

II. Literature Review

Conceptual Review

Financial Leverage

Leverage in the financial markets occurs when a borrower uses borrowed funds to purchase an asset, expecting a larger return than the cost of the loan itself (Adenugba et al., 2016). Therefore, financial leverage is an investment strategy that promotes organization expansion and growth. Financial leverage is borrowing debt to expand one's asset base. Leverage is a way to get a higher rate of return on money that has been invested (Demiraj, Demiraj, & Dsouza, 2023). There is a higher chance of failure if too much financial leverage is used, as servicing the loan becomes more challenging. The financial leverage formula is a valuable indicator of a company's borrowing capacity as a ratio of total debt to total assets. The debt-to-assets ratio is a standard indicator of financial leverage. Financial leverage is beneficial when interest payments are less than the profits from the debt's

utilization (Nissim & Penman, 2013). Instead of selling new shares of stock to raise money, many companies use financial leverage, which can lower the value of each current shareholder's stake (Ghosh & Jain, 2010). Debt financing makes the most sense when stable cash flow is expected. This makes it much easier to budget for debt repayment. Cash flow stability is typical in markets with few competitors, considerable entry barriers, and few game-changing product innovations.

There are two main benefits to using financial leverage. It can improve a company's profit margin (Ramalho & Silva, 2009). Second, interest is tax deductible in many tax systems, lowering the borrower's debt cost (Cole, 2017). However, financial leverage also carries the risk of disproportionate losses, as the resulting interest expense can be prohibitive if the borrower cannot generate adequate returns to cover it. This becomes a severe issue when interest rates increase, or asset returns fall. A similar dilemma faces an investor considering taking on debt to boost his or her purchase of assets. An investor could lose all of their money if the security's market price drops and the lender demand repayment of the lent funds.

Long Term Debt to Equity

The long-term debt ratio will reflect the company's financing deficit; In market timing, the debt ratio is inversely proportional to the historical average market-to-book ratio (Ghosh et al, 2006). The long-term debt ratio is calculated by long-term debt divided by total assets. Long term debt is one of the debt products whose payment or repayment is given a fairly long deadline (Broyles, 2003) asserts long term debt is in the form of bonds sold publicly in financial markets or placed privately with large financial institutions, the securities of debt and publicly issued equity require higher transaction costs. Long-term debt is the main source of financing no matter the level of systematic risk, the positive relationship makes sense because the high level of systematic risk makes the company uncomfortable to increase equity financing (Bas et al., 2009). Shareholders do not like to invest in short-term projects because they are less profitable. Long-term projects that incurred long-term debt are more beneficial to creditors (Miglo, 2016).

Debt to Equity Ratio

The Debt-to-Equity Ratio is a useful tool for determining the amount of funds provided by creditors and company owners. In other words, it is the debt-to-equity ratio. When calculating this ratio, all debt, including current debt, is compared to total equity. If the company's leverage increases, it will have a negative effect on the company's profitability (Susilawati, Shavab, & Mustika, 2022). The Debt-to-Equity Ratio (DER) is a financial ratio that compares the amount of debt to equity. Both equity and debt are used for the operational needs of the company and should be in a proportional amount. Additionally, the Debt-to-Equity Ratio is also commonly referred to as a leverage ratio or leverage ratio, and it is used to measure the leverage of investments within the company (Satoto, Marjohan & Suyanto, 2023). A decrease in the Debt-to-Equity Ratio (DER) can enhance the value of Earnings Per Share (EPS). If the Debt-to-Equity Ratio (DER) decreases, it means that the company's obligations have been secured by capital with fulfilled obligations, and there is an excess of assets to manage. This will lead to higher profits, optimizing the company's earnings. This, in turn, increases investor interest in investing in stocks. With more investors investing in stocks, the Earnings Per Share (EPS) will increase (Ratnasari & Muniarty, 2020). The Debt-to-Equity Ratio is a solvency ratio used in the financial analysis of companies. This ratio provides insights into how a company funds its operations, especially to what extent it relies on debt as a source of financing, as well as the company's ability to repay its debts (Winata et al. 2023).

Financial Performance

A firm's financial performance is an estimation of what has been achieved by the firm over a given period of time in monetary terms. The importance of measuring a company's performance is to obtain vital information for the various investors and stakeholders on its liquidity, solvency, profitability and efficiency. According to Almajali et al, (2012), the main factors that influence financial performance of an entity include liquidity, leverage, size of the firm and management's ability i.e. highly competent managerial staff. Financial performance is the measure of how well a firm can use its assets from its primary business to generate revenues. Erasmus (2008) noted that financial performance measures like profitability and liquidity among others provide a valuable tool to stakeholders which aids in evaluating the past financial performance and current position of a firm. Financial performance evaluation is designed to provide answers to a broad range of important questions, some of which include whether the company has enough cash to meet all its obligations, is it generating sufficient volume of sales to justify recent investment.

Capital structure is closely linked with financial performance (Tian & Zeitun, 2007). Financial performance can be measured by variables which involve productivity, profitability, growth or, even, customer satisfaction. These measures are related among each other. Financial measurement is one of the tools which indicate the financial strengths, weaknesses, opportunities and threats. Those measurements are return on investment (ROI), residual income (RI), earning per share (EPS), dividend yield, return on assets (ROA), growth

in sales, return on equity (ROE),e.t.c (Stanford, 2009). There are various stakeholders who are interested in a company's performance due to leverage. These include the equity holders, who are owners of the firm and they carry the highest risk in the business since they are the last to be paid upon winding up of the firm after all the debt holders claims are settled. They gain through the value of their shares appreciating and through pay out of dividends. The debt holders are also interested since they gain through repayment of their principal amount with some interest. Their debt is secured by the company's assets and are first to be paid in the event that the company winds up or is unable to pay its debtors (Harris & Raviv, 1991).

Return on Equity

Return On Equity It is an important ratio or returns on equity, that tells us how many shareholders earn from the funds they provide to the company. When the ROE is high, stock prices also tend to be high; So, actions that increase the ROE generally increase the stock price. The single best accounting metric of success is ROE, which reflects the effects of all other ratios. High returns on equity are attractive to investors, and high returns on equity are associated with high stock values (Brigham & Houston, 2019). According to Parrino et al (Parrino, Kidwell, & Bates, 2012) ROE measures net income as a percentage of shareholder investment in the company. Previous research conducted (Pangestu, 2019; Zuchrinata & Yunita, 2019) states the existence of significant influence simultaneously or together from debt ratio, long-term debt to equity, and the size of the company to ROE. Return on Equity that is used to measure profitability it also shows the relationship between net profit and the value of shareholder equity (William, Beaver, Stephen, & Ryan, 2012).

Return on Asset

The return on assets is a profitability ratio used to assess the percentage of profits obtained by a company in relation to its resources or total assets. This ratio reflects the efficiency of a company in managing its assets. Return on Asset (ROA) is a ratio that measures the returns generated from the total assets employed by a company. A higher ROA indicates that a company is more efficient in generating profits from its investments and operations. Research conducted by Siregar, Nuraisah, & Simatupang, (2021) suggests that ROA is relevant in assessing corporate profitability, particularly in the context of multinational companies. ROA values approaching one indicate the company's ability to maximize asset utilization for profit generation. The higher the ROA, the better the financial performance of the company (Arief, Saratian, Nugroho, Ashshidiqy, & Kolis, 2020). Conversely, a negative ROA signifies that the company is incurring losses or its profits are insufficient to offset the investments made. Return on assets shows the relationship between firm profit and its assts. It shows how much a firm gain profit from its assets (Muhammad, 2014)

Theoretical Framework

This study adopts the Trade-Off Theory as its theoretical framework. Myers (1984) argued that firms that follow the trade-off theory set a target financial leverage ratio and then gradually move towards it. He argued further that managers may be reluctant to issue equity if they feel that it is undervalued in the market. An optimal capital structure is achieved when the marginal present value of tax shield on additional debt is equal to the marginal present value of the costs of financial distress on additional debt. Financial leverage impacts positively on firm's performance by limiting conflicts between shareholders and managers resulting from having excess cash. However, higher financial leverage implies higher costs of financial distress and higher commitment to fulfill future obligations in terms of principal and fixed interest payments (Myers, 1984). Miller (1977) argued that the cost of higher financial leverage is lower than its benefits, implying that the choice of leverage over equity is worthwhile. The trade-off theory suggests that those firms with higher level of retained earnings, i.e. profitable firms tend to have higher debt levels because they can effectively take advantage of tax shields on interest (Abubakar, 2017). In addition, since these companies have higher operating profits, the probability and costs of financial distress are also lower. Consequently, the trade-off theory predicts positive relationship between firms' leverage ratios and their performance (Abubakar, 2017).

Empirical Studies

Abubakar (2016) investigated the effect of financial leverage on the financial performance, using five companies from the Health Care Sector of the NSE over the period 2005- 2014. The study adopted the panel data framework in the form of the Fixed Effects Model (FEM). Short-term debt ratio (STDR), long-term debt ratio (LTDR), total-debt ratio (TDR) and total-debt equity ratio (TDER) were used to proxy financial leverage, while Return on Equity (ROE) was used to measure financial performance. Results from the FEM indicate that STDR and LTDR have significant positive effect on the financial performance, while TDR and TDER have significant but negative effect on the financial performance.

Abubakar (2017) examined the effect of financial-on-financial performance of 66 non-financial quoted companies in Nigeria during the period 2005- 2014. Descriptive statistics in the form of mean, median, maximum

and minimum values; and panel data technique in the form of Random Effects Model (REM) had been applied to analyze the data. Results from the REM reveal that TDER has a positive and significant effect on the financial performance surrogated by Return on Equity (ROE), while STDR, LTDR and TDR have no significant effect on the financial performance, during the period of study.

Abubakar, Maishanu, Abubakar, and Aliero, (2018) studied the effect of financial leverage on the financial performance of quoted conglomerate firms in Nigeria during the period of 2005- 2016, using Fixed Effect Model (FEM). The study measured financial performance by the return on asset (ROA). The findings revealed that short-term debt ratio (STDR) has positive effect on the financial performance, while long-term debt ratio (LTDR) and total-debt equity ratio (TDER) have significant negative effect on the financial performance.

Akingunola, Olawale and Olaniyan (2017) evaluated the effect of capital structure decisions on the performance of 22 listed non-financial firms in Nigeria spanning 2011 to 2015. The results revealed that short term debt to total asset (STDTA) and total debt to total equity (TD/TE) have significant negative effect on performance indicated by ROA, while STDTA and long-term debt to total asset (LTDTA) have significant positive effect on the ROE. The authors also found total debt to total asset (TD/TA) to be significantly positively associated with ROE.

Ashraf, Ahmad and Mehmood (2017) examined the impact of financial leverage on performance of ten (10) listed companies from the fuel and energy sector of Pakistan and found among others that debt equity ratio has a significant negative impact on ROA, ROE and return on capital employed (ROCE) using multiple regression technique.

David and Olorunfemi (2010) assessed the impact of capital structure on corporate performance using evidence from the petroleum sector of Nigeria for the period of 1999- 2005. The authors documented significant positive link between debt equity ratio and financial performance surrogated by earnings per share (EPS) and dividend per share (DPS) using fixed effects estimation, random effects estimation and maximum likelihood estimation. Applying correlation and multiple regression analysis.

Enakirerhi and Chijuka (2016) explored the determinants of capital structure of United Kingdom (UK) Financial Times Security Exchange (FTSE) 100 firms using Fixed Effects Model, and discovered significant relationship between long term debt, short term debt, total debt and return on asset. Hossain and Nguyen (2016) examined the relationship between financial leverage and performance of ten (10) US companies for a ten-year period from 2004 to 2013, and reported strong negative association between financial leverage and performance using regression analysis

In another study of Pakistani firms, Nazir (2017) measured the impact of financial leverage on financial performance of twenty-one (21) listed companies in the textile, automobile, sugar, petroleum and energy sectors of Pakistan using ordinary least squares and correlation techniques during the period 2012- 2015. The study unraveled that financial leverage measured by debt to asset ratio has significant negative effect on financial performance proxy by ROA.

Innocent, Ikechukwu and Nnagbogu (2014) studied the effect of financial leverage on the financial performance of three (3) quoted pharmaceutical firms in Nigeria over the period of 2001- 2012, utilizing descriptive statistics, Pearson correlation and multiple regression techniques. The study reported that debt ratio and debt-equity ratio have negative relationship with ROA, while interest coverage ratio is positively associated with ROA. Uwalomwa and Uadiale (2012) which was based on the data of a sample of thirty-one firms listed on Nigerian stock exchange for the period 2005-2009. The method of analysis was Ordinary Least Squares (OLS) technique. It was reported that financial performance was affected positively by short-term debt in the period of study.

Kuria and Omboi (2015) examined the relationship between capital structure and financial performance of investment and banking firms listed on the Nairobi securities exchange in Kenya over the period 2009- 2013. The study adopted both descriptive and regression analysis techniques to examine the effect of the selected variables. Results revealed that debt to equity and debt to capital ratios have a negative significant relationship with ROA, while long term debt has no significant relationship with ROA. In another model, the results also revealed that debt to equity ratio has a significant positive relationship with ROE, while debt to capital ratio has a significant negative relationship with ROE. However, just like with the ROA model, long term debt has no significant association with ROE.

Ubesie (2016) found that long term debt has insignificant negative effect on financial performance. This was the result of the consideration of capital structure on the financial performance of conglomerates quoted on the floor of the Nigerian stock exchange for the five-year period 2011-2015.

III. Research Method

This study adopted ex-post facto research design. The choice of Ex-post factor design was justified because the study relied on past data of events in the studied organization that researchers cannot manipulate. The study population is made up of five (5) selected manufacturing firms listed on Nigeria exchange group. The

selected firms are Cadbury Nigeria Plc, Flour Mill Nigeria Plc, Nigerian Breweries Plc, Honeywell Nigerian Plc and Dangote Sugar Plc. Secondary data was used for the study. The sources of secondary data used for the study was annual financial statement of the selected organizations. Linear regression analysis with the aid of SPSS 20.0 software was used to analyzed the data.

Model Specification

Financial Performance = f(firm leverage)

Explicitly, the linear regression model is as follows:

$ROA = a_0 + b_1De + \mu$ ---------- (i)

$ROE = a_0 + b_2Ltd + \mu$ ---------- (ii)

Where: ROA = Return on Asset, ROE= Return on Equity, a_0 = Intercept, b_1, b_2 = parameters to be estimated, De = Debt to Equity, Ltd = Long term debt and μ = Error term

Variables and Measurement

Concept	Variable	Indicators	Measurement
Financial Leverage	Debt to Equity	Ratio of total liability to total equity.	Total liabilities divided by total equity
	Long term debt	Ratio of long-term debt to total assets	long-term debt divide by total assets
Firm Financial Performance	Return on Asset	Ratio of profit after tax to total assets of the firm.	Profit after tax divide by total asset
	Return on Equity	Ratio of profit after tax to total assets of the equity.	Profit after tax divide by total equity

Source: Researcher's (2025)

IV. Results and Discussion

Hypothesis One

H_o1 There is no significant effect of Debt-to-Equity Ratio on Return on Equity of quoted manufacturing firms in Nigeria

Table 4.1 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.929[a]	.863	.861	.3369

a. Predictors: (Constant), Debt to Equity

Table 4.1 ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34.469	1	34.469	303.622	.000[b]
	Residual	5.449	48	.114		
	Total	39.918	49			

a. Dependent Variable: Return on Equity

b. Predictors: (Constant), Debt to Equity

Table 4.3 Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.512	.057		8.935	.000
	Debt to Equity	-.261	.015	-.929	-17.425	.000

a. Dependent Variable: Return on Equity

From Table 4.1: model summary shows that R square and the adjusted R square are .863 and .861. This implies that 86.1% variation experienced in return on equity among the studied firms was explained by the firm's debt to equity. More so, it was observed from Table 4.2 (ANOVA Table) that firm's debt to equity is statistically significant to predict return on equity since the probability value obtained (p-value), that is 0.00, is less than 0.05 ($P< 0.05$). This was further confirmed in Table 4.3 where the coefficient of firm's debt to equity indicated a negative (T -17.425) influence of debt to equity on return on equity.

Decision: Based on the result of test of hypothesis one, the alternative hypothesis is accepted while null hypothesis is rejected; which state that there is a significant effect of Debt-to-Equity Ratio on Return on Equity of quoted manufacturing firms in Nigeria.

Hypothesis Two

H_o2 There is no significant effect of Long-Term Debt on Return on Asset of quoted manufacturing firms in Nigeria

Table 4.4 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.391[a]	.153	.136	.5910

a. Predictors: (Constant), L term Debt

Table 4.5 ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3.035	1	3.035	8.688	.005[b]
	Residual	16.769	48	.349		
	Total	19.804	49			

a. Dependent Variable: Return on Asset

b. Predictors: (Constant), L term Debt

Table 4.6 Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.155	.115		1.351	.183
	L term Debt	.535	.182	.391	2.947	.005

a. Dependent Variable: Return on Asset

From Table 4.4: model summary shows that R square and the adjusted R square are .153 and .136. This implies that 13.6% variation experienced in return on asset among the sampled firms was explained by the firm's long-term debt. More so, it was observed from Table 4.5 (ANOVA Table) that firm's long-term debt is not statistically significant to predict return on asset since the probability value obtained (p-value), that is 0.05, is not less than 0.05 (P< 0.05). This was further confirmed in Table 4.6 where the coefficient of firm's long-term debt indicated a negative (T 2.947) influence of long-term debt on return on asset.

Decision: Based on the result of test of hypothesis two, the alternative hypothesis is rejected while null hypothesis is accepted; which state that there is no significant effect of Long-Term Debt on Return on asset of quoted manufacturing firms in Nigeria.

V. Discussion on Findings

The test of hypothesis one shows that there is a significant effect of Debt-to-Equity Ratio on Return on Equity of quoted manufacturing firms in Nigeria. This result reveals that debt to equity have a significant positive effect on the return on equity of manufacturing firms in Nigeria. The result is in line with the findings made by Adeniyi and Aderobaki (2021), Uwalomwa and Uadiale (2012); Abubakar (2016); Akingunola, Olawale and Olaniyan (2017) who in their studies found a positive significant relationship between debt level and financial performance.

The result from the test of hypothesis two shows that there is no significant effect of Long-Term Debt on Return on Asset of quoted manufacturing firms in Nigeria. This result reveals that Long-Term Debt does not have a significant effect on Return on Asset of quoted manufacturing firms in Nigeria. This finding is in consistent with that made by Adeniyi and Aderobaki (2021), Innocent, Ikechukwu and Nnagbogu (2014); Kuria and Omboi (2015); Ubesie (2016); Hossain and Nguyen (2016) who in their studies found that there is no significant relationship between long term debt and financial performance.

VI. Conclusion

Based on the findings from the test of hypothesis of the study which states that there is a significant effect of Debt-to-Equity Ratio on Return on Asset (ROA) of quoted manufacturing firms in Nigeria, and there is no significant effect of Long-Term Debt on Return on Equity of quoted manufacturing firms in Nigeria. The study concludes that financial leverage when measures with debt to equity have a significant effect on financial

performance of quoted manufacturing firms while financial leverage when measured with long term debt does not have significant effect on financial performance of quoted manufacturing firm in Nigeria.

Recommendations

1. Manufacturing firms in Nigeria should strategically utilize debt financing alongside equity capital prudently to optimize their return on equity by ensuring that debt levels do not exceed optimal thresholds, as excessive leverage could increase financial risk and threaten the firm's long-term sustainability. Managers should also invest borrowed funds in high-yield projects capable of generating returns above the cost of debt.
2. Managers of manufacturing firms should avoid overreliance on long-term debt as a means of improving asset profitability. Instead, managers should focus on improving operational efficiency, reducing wastage, and ensuring that assets are effectively utilized to generate higher returns.

References

[1]. Abor, J. (2005). The effect of capital structure on profitability: An empirical analysis of listed firms in Ghana. The Journal of Risk Finance, 6(5), 438–445. https://doi.org/10.1108/15265940510633505

[2]. Abor, J. (2015). The effect of capital structure on profitability. Lambert Academic Publishing.

[3]. Abubakar, A. (2016). Financial leverage and financial performance: Evidence from the health care sector of the Nigerian stock exchange from 2005- 2014. ADSU Journal of Economics and Interrelated Disciplines, 1 (2), 45- 64.

[4]. Abubakar, A., Maishanu, M. M., Abubakar, M. Y., & Aliero, H. M. (2018). Financial leverage and financial performance of quoted conglomerate firms in Nigeria. Sokoto Journal Management Studies, 14 (1), 85- 100.

[5]. Adenikinju, A., & Oyinlola, M. (2020). Energy infrastructure and industrial performance in Nigeria. African Development Review, 32(S1), S100–S112. https://doi.org/10.1111/1467-8268.12428

[6]. Akhtar, M., Yusheng, K., Haris, M., Ain, Q., & Javaid, H. (2021). The impact of capital structure on firm performance: Empirical evidence from Pakistan. Journal of Asian Finance, Economics and Business, 8(5), 913–920. https://doi.org/10.13106/jafeb.2021.vol8.no5.0913

[7]. Akingunola, R. O., Olawale, L. S., & Olaniyan, J. D. (2017). Capital structure decision and firm performance: Evidence from non-financial firms in Nigeria. Acta Universitatis Danubius Economica, 13 (16), 351- 364.

[8]. Akintoye, I. R. (2008). Effect of capital structure on firms' performance: The Nigerian experience. European Journal of Economics, Finance and Administrative Sciences, 10, 233–243.

[9]. Akintoye, I. R. (2018). Effect of capital structure on firm performance: Evidence from Nigerian manufacturing industry. European Journal of Accounting, Auditing and Finance Research, 6(9), 1–20.

[10]. Almajali, A. Y., Alamro, S. A., & Al-Soub, Y. Z. (2012). Factors affecting the financial performance of Jordanian insurance companies listed at Amman Stock Exchange. Journal of Management Research, 4(2), 266–289. https://doi.org/10.5296/jmr.v4i2.1482

[11]. Arief, H., Saratian, E. T. P., Nugroho, D. A., Ashshidiqy, N., & Kolis, D. N. (2020). Pengaruh ROA, DER, dan Tobin's Q-Ratio Terhadap Harga Saham pada Industri Pertambangan Migas di Bursa Efek Indonesia. Jurnal Ilmiah Manajemen Bisnis, 6(02), 174–183.

[12]. Ashraf, M., Ahmad, M. W., & Mehmood, N. (2017). The impact of financial leverage on firm performance in fuel and energy sector, Pakistan. Journal of Energy Technologies and Policies, 7 (5), 43- 49.

[13]. Brealey, R. A., Myers, S. C., & Allen, F. (2018). Principles of corporate finance (13th ed.). McGraw-Hill Education.

[14]. Brigham, E. F., & Houston, J. F. (2019). Fundamentals of Financial Management. In Cengage 20 Channel Center Street Boston, MA 02210 USA (15e ed.). Cengage Learning, Inc.

[15]. Budi Satoto, E., Marjohan, M. & Suyanto (2022). Financial Performance, Debt-to-Equity Ratio, Return on Assets, and Total Asset Turnover on Earnings Per Share and Stock Price as Moderator. Jurnal Ilmiah Manajemen Management Scientific Journal ISSN (Online): 2460-5328, ISSN (Print): 2088-1231 https://publikasi.mercubuana.ac.id/index.php/jurnal_Mix

[16]. Central Bank of Nigeria. (2023). Statistical bulletin. CBN. https://www.cbn.gov.ng

[17]. Cole, A. (2017). Interest deductibility: Issues and reforms. Tax Foundation Fiscal Fact 548.

[18]. David, F. D. & Olorunfemi, S. (2010). Capital structure and corporate performance in Nigerian petroleum industry: Panel data analysis. Journal of Mathematics and Statistics, 6 (2), 168- 173.

[19]. Demiraj, R., Demiraj, E., & Dsouza, S. (2023). Impact of finan cial leverage on the performance of tourism firms in the Mena region. PressAcademia Procedia, 16(1),156–161.

[20]. Enakirerhi, L. I., & Chijuka, M. I. (2016). The determinants of capital structure of FTSE 100 firms in the UK: A fixed effects panel data approach. Research Journal of Finance and Accounting, 7 (13), 59- 73.

[21]. Farooq, O., El Bannan, M., & Cherian, J. (2023). Trade-off theory and firm value: Evidence from emerging markets. Journal of Risk and Financial Management, 16(1), 1–16. https://doi.org/10.3390/jrfm16010045

[22]. Ghosh, A., & Jain, P. C. (2000). Financial leverage changes associated with corporate mergers. Journal of Corporate Finance, 6(4), 377–402.

[23]. Ghosh, A., & Jain, P. C. (2000). Financial leverage changes associated with corporate mergers. Journal of Corporate Finance, 6(4), 377–402.

[24]. Hoshi, T., Kashyap, A., & Scharfstein, D. (2004). Corporate financing and governance in Japan: The road to the future. MIT Press.

[25]. Innocent, E. C., Ikechukwu, A. C. & Nnagbogu, E. K. (2014). The effect of financial leverage on financial performance: Evidence of quoted pharmaceutical companies in Nigeria. IOSR Journal of Economics and Finance, 5 (3), 17- 25.

[26]. 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. https://doi.org/10.1016/0304-405X(76)90026-X

[27]. Kuria, J., & Omboi, B. (2015). Relationship between the capital structure and the financial performance of investment and banking firms listed at Nairobi securities exchange Kenya. Prime Journal of Business Administration and Management (BAM), 5 (11), 1983-1991.

[28]. Mahmood, I. (2023). Financial leverage and financial distress: Evidence from Asian economies. Asian Journal of Economics and Banking, 7(2), 215–229. https://doi.org/10.1108/AJEB-09-2022-0100

[29]. Miglo, A. (2016). Capital Structure in the Modern World. In Capital Structure in the Modern World. https://doi.org/10.1007/978-3-319-30713-8

[30]. Modigliani, F., & Miller, M. H. (2019). The cost of capital, corporation finance and the theory of investment. In Foundations of corporate finance (pp. 13–42). World Scientific. (Original work published 1958) https://doi.org/10.1142/9789811202391_0002
[31]. Muhammad, M. (2022). The Effect of ROA, DPR, EPS, and TATO on the Firm Value on Banking Companies Listed on BEI 2018-2020 Period. Almana : Jurnal Manajemen dan Bisnis, 6(1). https://doi.org/10.36555/almana.v6i1.1731
[32]. Myers, S. C. (2001). Capital structure. Journal of Economic Perspectives, 15(2), 81–102. https://doi.org/10.1257/jep.15.2.81
[33]. Nazir, U. (2017). Impact of capital structure on firm"s financial performance: Textile, automobile, sugar, petroleum and engineering industry of Pakistan. European Journal of Business and Management, 9 (25), 62- 66.
[34]. Nissim, D., & Penman, S. H. (2003). Financial statement analy sis of leverage and how it informs about profitability and price-to-book ratios. Review of Accounting Studies, 8(4), 531–560.
[35]. Ogebe, P., Ogebe, J., & Alewi, K. (2013). The impact of capital structure on firms' performance in Nigeria. International Journal of Business and Social Science, 4(16), 165–171.
[36]. Pangestu, A. (2019). Pengaruh Aktivitas Rasio, Ukuran Perusahaan, Struktur Modal, Likuiditas Dan Debt Ratio Terhadap Profitabilitas Sub Sektor Makanan Dan Minuman Di Bei 2009-2016. Jurnal Manajemen Bisnis Dan Kewirausahaan, 2(3), 37–46. https://doi.org/10.24912/jmbk.v2i3.4843
[37]. Parrino, R., Kidwell, S. D., & Bates, W. T. (2012). Fundamental Of Corporate Finance. In Corporate Finance. https://doi.org/10.12737/24596
[38]. Ramalho, J., & da Silva, J. V. (2009). A two-part fractional regression model for the financial leverage decisions of micro, small, medium and large firms. Quantitative Finance, 9(5), 621–636.
[39]. References Abubakar, A. (2017). Financial leverage and financial performance of quoted industrial goods firms in Nigeria. KASU Journal of Management Science, 8 (2), 89- 108.
[40]. Sahminan. (2021). The effect of capital structure on firm performance: Evidence from Indonesia. International Journal of Economics and Business Administration, 9(4), 19–31. https://doi.org/10.35808/ijeba/756
[41]. Salawu, R. O. (2019). Capital structure and firm performance: Evidence from Nigerian quoted firms. International Journal of Economics and Financial Issues, 9(3), 29–35.
[42]. Siregar, Q. R., Nuraisah, N., & Simatupang, J. (2021). Pengaruh Return on Assets, Debt to Equity Ratio, Dan Earning Per Share Terhadap Harga Saham Pada Perusahaan Aneka Industri Yang Terdaftar Di Bursa Efek Indonesia Periode 2018-2020. Prosiding Seminar Nasional Kewirausahaan, 2(1), 1008–1018.
[43]. Sugumar, V. (2023). Leverage, profitability and firm value: New evidence from Asian manufacturing firms. Journal of Asian Business and Economic Studies, 30(3), 215–232. https://doi.org/10.1108/JABES-03-2022-0045
[44]. Susilawati, D., Shavab, F.A. & Mustika, M (2022). The Effect of Debt-to-Equity Ratio and Current Ratio on Return on Assets. Journal of Applied Business, Taxation and Economics Research (JABTER). Vol. 1, No. 4, April 2022 (Page: 325-337) DOI: 10.54408/jabter.v1i4.61 P-ISSN 2828-4976 E-ISSN 2808-263X
[45]. Ubesie, M. C. (2016). The effect of capital structure on the financial performance of Nigerian quoted conglomerates. European Journal of Accounting, Auditing and Finance Research 4(6), 61-69
[46]. Uwalomwa, U., Uwuigbe, U., & Oyewo, B. (2015). Credit management and bad debt in Nigeria commercial banks: Implications for development. Accounting and Management Information Systems, 14(4), 655–675.
[47]. Uwuigbe, O. R., Jafaru, J., & Ajayi, A. O. (2019). The impact of capital structure and profitability in quoted firms in Nigeria. Journal of Accounting and Taxation, 11(5), 79–84. https://doi.org/10.5897/JAT2019.0345
[48]. William H, Beaver, Stephen G. Ryan. (2012). Biases and Lags in Book Value and Their Effects on the Ability of the Book-to-Market Ratio to Predict Book Return on Equity. journal of Accounting Research, 23.
[49]. Winata, S., Selfiyan, S., Suhendra, S., & Samara, A. (2023). Pengaruh Current Ratio, Return On Assets, dan Total Assets Turnover Terhadap Harga Saham Pada Perusahaan Makanan dan Minuman Yang Terdaftar di Bursa Efek Indonesia (BEI) Periode 2017-2021. eCo- Buss, 5(3), 1058–1069.
[50]. Zeitun, R., & Tian, G. (2007). Modal struktur dan kinerja perusahaan. https://doi.org/10.14453 / aabfj.v1i4.3
[51]. Zuchrinata, F. A., & Yunita, I. (2019). Pengaruh Inflasi, Suku Bunga Bank Indonesia, Debt to Equity Ratio, Ukuran Perusahaan dan Umur Perusahaan terhadap profitabilitas Perusahaan Sub Sektor Pertambanagan Batubara yang Terdaftar di BEI Tahun 2013 2017. JIM UPB (Jurnal Ilmiah Manajemen Universitas Putera Batam), 7(2), 189. https://doi.org/10.33884/jimupb.v7i2.1232