

CAPITAL STRUCTURE AND FIRM PERFORMANCE OF LISTED MANUFACTURING FIRMS IN NIGERIA STOCK EXCHANGE

Rafiyat Bosede OLANIYI¹, Kayode Peter ABILORO²,
Niyi Oladipo OLANIYAN³

¹ Department of Accounting, Federal University Oye-Ekiti, Nigeria

² Department of Accounting, Federal University Oye-Ekiti, Nigeria

³ Department of Accounting, Federal University Oye-Ekiti, Nigeria

How to cite: OLANIYI, R.B., ABILORO, K.P., & ILANIYAN, N.O. (2022). "Capital Structure and Firm Performance of Listed Manufacturing Firms in Nigeria Stock Exchange." *Annals of Spiru Haret University. Economic Series*, 22(2), 149-167, doi: <https://doi.org/10.26458/2229>

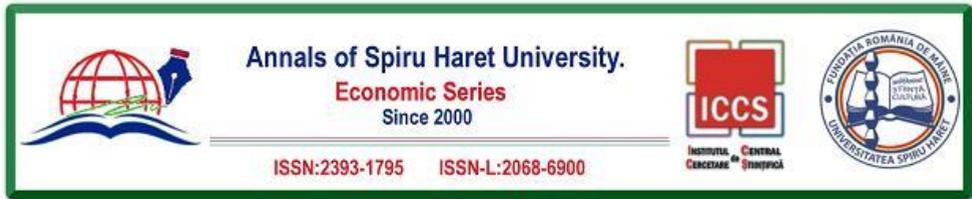
Abstract

This research studied the link between capital structure and financial performance of Nigerian manufacturers. It evaluated the nexus between total debt and financial performance of listed manufacturing companies in Nigeria, the nexus between equity and financial performance of listed manufacturing firms in Nigeria Stock Exchange.

The study used ex-post-facto data to investigate variable relationships. Nigerian manufacturing firms were studied. The data was taken from the company's (2005-2020). Both descriptive and inferential statistics, such as Pearson correlation and panel regression, were used to examine the data.

Return on equity, equity capital has a substantial influence on the performance of Nigerian manufacturing companies. 6.34 and 0.26 Total debt assessed by asset debt-to-equity ratio has no influence on stock market performance ($p > 0.6580$). Sand return on equity has a positive significant influence on financial performance of Nigerian manufacturing firms by 6.331 ($p = 0.0000.05$) and 0.117 ($p = 0.0070.05$); long-term debt also has a positive significant effect.

The study found that equity capital, total debt, and long-term debt have the potential to positively and significantly influence the financial performance of manufacturing firms in Nigeria, whereas short term debt has the potential to



Issue 2/2022

positively and insignificantly influence financial performance. Total asset has the potential to positively and significantly influence financial performance.

Keywords: *capital structure, financial performance, influence, total asset.*

JEL Classification: G11, G17

Introduction

The nation's economic development and the general population's level of life are directly influenced by the manufacturing companies. Manufacturing companies not only help to lower the nation's unemployment rate but also contribute significantly to the country's overall economic growth. Other types of companies rely on manufacturers to provide them with the raw materials, equipment, and machinery that they need to operate. This is especially true of manufacturers that make manufacturing items. Businesses that are involved in manufacturing are prospering in Nigeria, which is seeing an increase in the total number of companies operating in this sector [Ajibola, Wisdom & Qudus, 2018]. Because manufacturing firms play such an important role in the economy of the nation, several stakeholders, including the government, consumers, investors, and even researchers, are interested about the performance of manufacturing companies, particularly their financial performance.

The term "financial performance" refers to the state of an organization as a whole as well as the returns generated from its combined resources that are put to use in its day-to-day operations. According to Bilafif and Ibrahim (2019), the definition of "financial performance" is "the effective use of resources to fulfill specified objectives, which results in a desirable growth in profitability indices." [Citation needed] A quantitative depiction of the quantity, cost, or outcome of operations that demonstrates how well or badly a firm does financially in this research is referred to as the financial performance of the company. Analyzing a company's financial performance often involves looking at a number of different measures, including return on asset (ROA), TOBIN's Q, return on investment (ROI), return on equity (ROE), and earnings per share (EPS). On the other hand, it would be preferable to get returns on assets and equity.

When the primary objective of managers is to maximize shareholder value, the capital structure of the company is often considered as a crucial choice that financial managers need to make when establishing the proper financing mix for

their firms. As a direct result of this, the researcher is interested in the impact that the composition of capital has on the financial performance of Nigerian companies.

Both microeconomic (those that are particular to an individual company) and macroeconomic (those that affect the whole economy) factors contribute to the overall economic health of a country. As a consequence of this, the major purpose of this study is to investigate the ways in which the capital structure of businesses in Nigeria affects the performance of such businesses. There has been a lot of study done on how a corporation's financial performance is affected by the capital structure of the company. There has been a lot of study done on how a corporation's financial performance is affected by the capital structure of the company.

There has been a lot of study done on how a corporation's financial performance is affected by the capital structure of the company. [See Hariandy, 2015; Samuel, 2016; Shen, 2017; Ajibola, Wisdom & Qudus, 2018; Akinleye & Akomolafe, 2019; Nelson & Peter, 2019; Ahmed & Amina, 2019; Olarewaju, 2019; Bilafif & Ibrahim, 2019; Akpali, 2019; Maryam, Muhammed, Mahmud & Abubakar, 2020] However, some of the holes need to be filled up. To begin, not one of these investigations, with the only exception of the one that was carried out by, was completed not too long ago employing just organizations that are responsible for the production of manufacturing goods [Temuhale & Ighoroje, 2021]. This research tries to fulfill a need in the market.

The primary purpose of this study is to examine the influence of capital structure on listed manufacturing firm in Nigeria stock exchange

. The specific objectives are to:

- examine the impact of total debt on the financial performance of listed manufacturing firm in Nigeria stock exchange
- investigate the impact of equity on the financial performance of listed manufacturing firm in Nigeria stock exchange
- evaluate the impact of total assets on the financial performance of listed manufacturing firm in Nigeria stock exchange

Literature Review

Capital Structure

A company's financial strength is built on capital. It supports the firm's operations by providing a buffer to engage its activities and unanticipated losses when difficulties develop, allowing the organization to continue operating in a reasonable and practical manner while dealing or resolving problems. Iorpev and

Issue 2/2022

Kwanum (I2012). The organization continues to reassure stakeholders that it will meet its responsibilities, and that they may have faith in the organization's financial stability. Consumption generates money in the manufacturing process. People, machinery, and money are considered to be factors of production (including the fourth type of information). As a result, each company organization's capital is critical. (2011)

The stock market and long-term debt are the two primary components that make up the capital structure of a firm. Although an organization's level of long-term permanent financing, which can be represented by preference shares, ordinary shares, and debt, may change over the course of its existence, the majority of businesses make it a priority to keep their financial portfolio within a close proximity to the capital structure goal they have set for themselves [Sunday & Samson, 2019]. Commercial businesses must be able to establish different ways for selecting the appropriate components of capital to employ in company operations in order to boost productivity and/or accomplish performance in order for the capital structure to be acceptable and effective. This method should be defined thoroughly by the finance management. The capacity of the firm to correctly identify sources of finances adequate to support its operations will differentiate between good capital structure management and poor capital structure management [Tian & Zeitun, 2017].

Debt total

Debt has been theorized by a number of researchers from various perspectives and levels of expertise. To begin, Dare and Sola (2018) defined debt as an organization's borrowing of cash to operate its activities. One of the advantages of using debt as a source of money is that when the loan is paid off, the connection ends and no more responsibilities exist. Onaolapo and Kajola (2018) confirm this by stating that debt entails borrowing from a third party while maintaining ownership. Debt refers to a contract between a debtor (borrower) and a creditor (lender), which may take the form of leases, bonds, notes, certificates, debentures, and mortgages [Akinleye & Akomolafe, 2019]. As a consequence of this, "total debt" refers to the total amount of money that an organization has borrowed from a third party in order to finance its activities.

According to Barbosa and Louri's (2015) research, an increase in total debt makes it possible for companies to borrow money. It opens up the possibility for them to get the necessary finance for their capital investment. An increase in debt

has the particular characteristic of imposing a need on the borrower to repay the amount borrowed in addition to interest over a predetermined length of time. The terms of the agreement between the two parties would include a schedule for repayment as well as the rate of interest that the lender is obligated to pay on the total amount that was borrowed. Even if a corporation suffers financial losses and is unable to meet its commitments, it is still financially responsible to its creditors and must pay them [Saad, 2021]. Even though they do not control the firm, holders of the company's debt are nevertheless entitled to a portion of the profits that it makes. The debt structure of the corporation can undergo changes in the future. For example, the total amount of debt might be extremely little or very high depending on the situation. When a company's total debt increases, the risk that it poses to its shareholders also increases. On the other hand, if the conditions are right, this might lead to an increase in the company's earnings [Saad, 2021].

Equity

Equity, as defined by Sunday and Samson (2019), is the money that is delivered to a company's regular shareholders after all of the company's short-term and long-term obligations have been met in full. After the resolution of the claims made by preference shareholders, ordinary shareholders have the right to receive returns. The information on the firm is available to all shareholders, and the shareholders' votes give them total control over the activities of the company. According to Warokka et al research's (2020), shareholders, who are also referred to as equity holders, are considered to be partial owners of the firm. Furthermore, they are held responsible for the risk that the company faces since they have residual claims on the assets of the company. According to Akinleye and Akomolafe (2019), equity is a kind of capital that is used by most companies. This form of capital allows the ownership of the firm to be gradually distributed among the shareholders. This is the value that would be returned to the shareholder in the event that all assets were sold off and all obligations were satisfied. According to Barbosa, N., and Louri, M., equity is the value that is allocated to the owners of a corporate organization (2020). It is possible for the corporation to get funds via the sale of shares without being required to return the stocks by a specific date. It is now possible for it to operate without the need of taking out financing. Shareholders have the expectation that they will profit from a company's ongoing operations.

Capital gains and dividends are two ways that shareholders might benefit from the company's future earnings. Ordinary shareholders, however, have minimal culpability if the company loses money. This indicates that the amount of money

Issue 2/2022

they lose is equal to the amount of money they put into the company [Sunday & Samson, 2019]. Equity helps a corporation to obtain capital without taking on debt, as described by Oyedokun, Olatunji, and Sanyaolu (2018). This implies you may buy the fund with your own money instead of paying a set amount. Investors and shareholders are both equity owners (people acquire shares in a business with the hopes of receiving their money back from future earnings). Internal and external equity are both possible sources of capital [Muigai & Murithi, 2017]. Internal equity refers to a company's retained earnings that are included in the company's distributable reserves [Taani, 2017]. When a company's retained earnings (internal equity) are insufficient for the investment opportunity, external stock is bought.

Financial Performance

Performance in practically every aspect of human life has recently attracted more attention. Performance is a subjective notion that may be divided into many categories based on its nature. The concept of performance is multifaceted. Various academics, educators, researchers, and intellectuals have conceptualized performance from various perspectives. Shen (2017), for example, saw performance as both a means to a goal and an end result. He went on to say that performance is a sequence of actions taken over a period in order to achieve a desired end or result. He went on to say that the final product may be called performance. Ahmad, et al., (2019) had a similar perspective, claiming that performance is the capacity to distinguish the end effects of organizational operations. Performance, according to Oyedokun, et al. (2018), is an organization's meaningful outcomes after efficiently employing various constrained resources. Furthermore, he asserted that performance does not refer to the conclusion or outcome of an activity, but rather to the path taken.

It is possible to evaluate the level of a company's financial performance by using a variety of different financial indicators, such as return on asset (ROA), TOBIN's Q, return on investment (ROI), return on equity (ROE), earnings per share (EPS), market share (MS), revenue growth (RG), and cost merit. Some of the indicators that should be looked for when measuring performance in non-financial or market-based areas include growth in market share and sales, satisfaction among customers and employees, organizational survival and stability, risk management, stakeholder management, risk management, and productivity, relational and social capital, and behavioral performance. On the other hand, the inquiry that was carried out in order to compile data for this research placed a key emphasis on assessing the performance of Nigerian manufacturing businesses from a financial and accounting perspective.

The Return on Asset

The return on assets of a company is a metric that is primarily concerned with finance and examines both the operational and financial health of the business [Olarewaju, 2019]. The ratio that is referred to as the return on assets (ROA) is computed in such a manner that the more productive the use of assets is for the benefit of shareholders, the higher the ratio will be. The capacity of a company to put its resources to good use in order to meet the financial expectations of its shareholders is one of the most important factors in determining whether or not it will be profitable [Abor, 2018]. Return on assets, often commonly referred to as ROA, is a fundamental measurement of a company's capacity to create profits from its assets and is typically abbreviated as ROA. Return on asset is a financial measure that indicates a company's rate of return in proportion to the value of its assets, as stated by Oyedokun et al. Return on asset is a financial measure that shows a company's rate of return in proportion to the value of its assets (2018). In other words, the return on asset measure is used to assess how much money a firm makes in proportion to the value of its assets in order to have a better idea of how profitable the company is. It indicates how well a corporation utilizes its resources to achieve the objectives it has set for itself.

Return on Equity

Return on equity (ROE) is a metric that is used to evaluate the success of a firm based on the value of its shareholders' equity. To calculate a company's return on equity, just divide its net income by the total amount of equity held by its shareholders. According to Sunday and Samson (2019), ordinary shareholders are concerned about the rate of return gained by an organization in proportion to the quantity of capital given by equity holders, after subtracting the amount that was used to pay other capital suppliers. Return on equity is a common statistic that is used to assess the effectiveness of a business. It goes beyond a simple calculation of profit. ROE is a measurement that may be used to determine the amount of profit that can be attributed to ordinary shareholders in relation to the book value of the investment that they have made in a company, as stated by Ahmad et al (2019). The value of return on equity may be calculated by taking the whole amount of net returns that are available to a company's shareholders and dividing that number by the total amount of equity held by those shareholders.

Issue 2/2022

Theoretical Review Pecking Order Theory

Myers and Majluf were the authors of this hypothesis (1984). This idea assumes that a company's internal resources have been depleted before it looks for outside sources of funding. In essence, the philosophy that governs pecking order refers to the situation in which a company exhausts its own sources of funding before seeking funding from outside sources. Equity funding would be the last resort if debt could not be raised. This idea predicts a negative relationship between an organization's capital structure and its performance, according to the literature. That is, the notion of optimum leverage is not considered in pecking order theory [Frank & Goyal, 2003].

Trade Offs Theory

This concept, which describes how the capital of a company is organized in terms of debt and equity, is one of the most often used ones in the field of corporate finance. This idea is often attributed to Kraus and Litzenberger, who deserve credit for its conception (1973). This theory proposes that the optimal capital structure for each company is attainable and can be expected by maintaining stability between the cost of debt and the tax benefits it provides, while maintaining other parameters at their original values. According to Ogenche et al., this concept demonstrates a positive association between gearing and profitability (2018). In a similar vein, the trade-off theory explains the relationship between a low total cost of capital and a high debt-to-equity ratio, with the latter causing an increase in the total cost of capital to be generated. This idea follows a similar line of thought as the previous one [Tsuji, 2017].

This hypothesis is predicated on the idea that the optimal form of capital structure for most enterprises is a combination of debt and equity financing. This hypothesis follows a similar line of thought as the previous one and proposes that loan capital may raise a company's worth up to a certain point. After that point, the value of the company stays steady and will only begin to decrease if excessive borrowing occurs. The tradeoff hypothesis places an emphasis on the limits of a capital structure that is centered entirely on debt, in which the weighted average cost of capital is at its lowest and a company's market value is at its greatest [Binh & Tram, 2020]. The cost of financial crises, the expense of the agency, and the personal tax on interest income are all elements that contribute to this limitation.

Empirical Review

Hariandy conducted research on the capital structures, growth rates, and profitability of listed manufacturing firm in Indonesia (2015). In the study, the researchers used a technique that is known as multiple regression analysis. It has been shown that there is a significant and positive correlation between the capital structure of Islamic microfinance companies in Indonesia and their levels of profitability. This link is advantageous since it shows that there is a connection between the two. The examination at hand is concentrating its attention on a study that is now being carried out in Nigeria rather than the one that was carried out in Indonesia and is being evaluated here.

In 2015, Caroline and Willy performed research to evaluate how the capital structure of firms listed on the Nairobi Securities Exchange affects the performance of such companies. The data were imported into SPSS, and multiple regression analysis was used so that the hypotheses could be examined and evaluated. In contrast to equity and long-term debt, which both have a significant and positive effect on financial performance, short-term debt has a negative effect on financial performance that is both significant and significant. This contrasts with the positive and significant effect that long-term debt and equity have. However, the research that was looked at did not succeed in accomplishing this aim, which was one of the purposes of the study. The research that was evaluated did not consider the impact that an organization's total debt ratio has on its success.

Foyeke, Olusola, and Aderemi (2016) looked at the financial structures and levels of profitability of listed manufacturing firm in Nigeria stock exchange. Stats software was used to analyze data using the spearman's rank correlation and regression methods for a sample of 25 manufacturing companies that had been listed on the Nigerian stock exchange between the years of 2008 and 2012. The sample was comprised of companies that had been listed on the Nigerian stock exchange between the years of 2008 and 2012. Companies that had been listed on the Nigerian stock market during the years of 2008 and 2012 constituted the sample for this study. Within the sample, we included companies that have been involved in transactions on that specific market. The results of the research indicate that there is a positive correlation between the presence of equity ownership and the level of profitability enjoyed by manufacturing companies in Nigeria. In place of regression analysis and Spearman's rank correlation, which were both used in the prior study, panel regression analysis is going to be utilized in the present investigation.

Nwachukwu and Akpeghughu (2016) carried a study on the topic of the connection between capital structures and overall firm performance in listed

Issue 2/2022

manufacturing firm in Nigeria stock exchange (2000-2014). The research demonstrated, with the assistance of regression analysis, that there is a connection between equity capital and return on investment that is both positive and substantial, whereas there is a connection between debt capital and return on investment that is both negative and substantial. This was found to be the case. It was found that these links had a statistically significant influence on both outcomes, which was the case in both of the cases. In the prior study, the focus was placed mostly on financial institutions located in Nigeria. On the other hand, the focus of the present research is mainly on the various manufacturing organizations in Nigeria.

Research was carried out by Oyedokun, Olatunji, and Sanyaolu on the potential effects that a company's capital structure may have on the overall level of financial performance of listed manufacturing firm in Nigeria stock exchanges. They were primarily interested in the manufacturing industry in Nigeria for the purposes of their research (2018). A balanced panel analysis was carried out for the purpose of this research utilizing one hundred distinct data points that were gathered from ten distinct publicly listed firms between the years 2007 and 2016. In this particular piece of research, the researchers used both descriptive statistics and regression as methods of data analysis and interpretation. According to the findings of the analysis, there is both a statistically significant and a negligible impact that capital structure has on performance metrics. The inquiry also concluded that there is no correlation between the two. In the preceding study, both descriptive static analysis and regression analysis were used as methods. In contrast, the present research will focus mostly on panel regression analysis as its major method of data collection and analysis.

METHODOLOGY

3. Model Specifications

This study uses ex-post facto (after-the-fact) data. Due to the short timeframe of the research, only ten (10) of the twenty-one (21) food and beverage businesses listed on the Nigerian Stock Exchange were sampled. The research covered "DN Meyer Plc, Portland Paints & Products Nigeria Plc, Lafarge Africa Plc, Cutix Plc, Beta Glass Cu Plc, Greip Nigeria Plc, Premier Paint Plc, Austin Laz & Company, Notore Chemical Ind. Plc, Dangote Cement plc from 2010 to 2019. This research used secondary data. The study's data came from yearly reports and the Nigerian Stock Exchange fact book. The research covers 2005-2010. The researcher used OLS regression to analyze the effect of dependent factors on independent variables.

Regression was used to obtain the linear equation coefficient that best predicted the dependent variation. F-statistics were used to evaluate the regression model's significance and t-statistics to test the regression coefficients. F and t-statistics were examined with 95% confidence. A correlation matrix showed the relationship between capital structure and firm performance.

$$ROA_{it} = f(EQU_{it}, TOD_{it}, TOA_{it}) \dots \dots \dots (3.2)$$

Where: ROA, ROE, EQU, TOD, TOA, *f* and *it* are as later defined.

The econometric representation of the new models is given thus:

$$ROA_{it} = \beta_0 + \beta_1 EQU_{it} + \beta_2 TOD_{it} + \beta_3 TOA_{it} + \mu_{it} \dots \dots \dots (3.4)$$

$$ROE_{it} = \beta_0 + \beta_1 EQU_{it} + \beta_2 TOD_{it} + \beta_3 LTD_{it} + \beta_5 TOA_{it} + \mu_{it} \dots \dots (3.5)$$

Where:

ROE is Return on Equity,

ROA is Return Assets

EQU is Equity

TOD is Total Debt

TOA is Total Assets

subscript “it” symbolizes the combination of time and individuality,

β_0 is the intercept.

4.2 Presentation of Result

4.2.1 Descriptive statistics

In this part, we will detail the variables that were chosen by using various metrics of weighted average (standard deviation, mean, minimum and maximum). The capital structure topics (return on assets, short-term debt, long-term debt, and total debt), as well as the financial performance indicators, were summed up with the use of the means of central tendency (return on asset and return on equity).

The values of the mean, maximum, and minimum as well as the standard deviation of the following variables are provided in Table 4.1; the dependent variables are return on asset (ROA) and return on equity (ROE), respectively (ROE). Several different manufacturing businesses in Nigeria were investigated

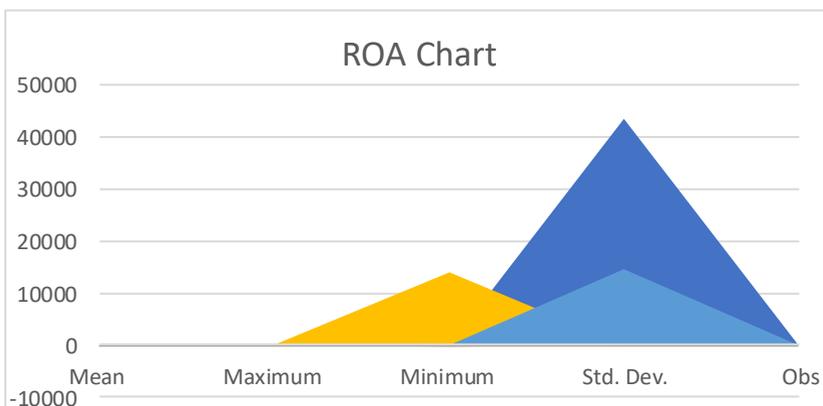
Issue 2/2022

with the use of independent variables such as equity (LEQU), total loan and debt (LTOD), long-term debt (), short-term debt (), and total asset (LTOA). When determining all of the statistics, researchers looked at data from a total of 160 company-years' worth of operations from 10 different manufacturing organizations in Nigeria. It was determined that using Stata 14 would result in an improvement in the accuracy of the estimation process.

Table 1. Descriptive Statistics for capital structure and financial performance variables.

Variables	Mean	Maximum	Minimum	Std. Dev.	Obs
ROA	0.4531	0.1472	-0.012	43,343	50
ROE	0.1451	34.958	-0.9843	3.424	50
LEQU	23.342	21.023	3.5948	32.345	50
LTOD	23.232	9.483	14,056	6.345	50
LTOA	45.394	42.204	32.345	14,567	50

Source: Author compilation E-view output (2022)



Interpretation

Table 4.1 presents ROA's mean value, which is 0.0211, along with its standard deviation (0.391). This demonstrates how closely clusters are aligned with the average return on assets. Return on assets for companies is 2%, which is positive but not very high. The resources of the company are resulting in a healthy operational surplus. During the time covered by this study, Nigerian companies created very little value for their various stakeholders. A ROA of 2 percent indicates that asset managers are not operating at optimal efficiency. There is a lack of investor interest in companies. As a kind of capital structure, total debt, equity, long-term debt, and short-term debt were used by all tested manufacturing companies, on average. There is a standard deviation of 39 percent for the independent variable. The range of 0.227 to -0.205 demonstrates that different manufacturing enterprises in Nigeria have diverse degrees of efficiency and practices. Mixed performance may be inferred from the fact that some of the manufacturing companies that were tested provide great returns for their stakeholders while others produce negative returns.

The mean ROE is 0.1771, and This demonstrates that manufacturing companies make strong returns on shareholder equity on a normal basis. This demonstrates that a significant number of firms can produce large shareholder returns. The 95 percent STD demonstrates that the chosen companies have varying degrees of success in generating high shareholder returns. The range of values from a maximum of 10.75 to a low of -0.3796 indicates that relative business characteristics influence profitability. While some businesses are successful at making a profit, others are not.

Equity's mean value is 15.597. This indicates that the proportion of equity in the chosen manufacturer's capital structure is 15.597 percent. This indicates that most of the chosen manufacturing companies have a lower-than-average equity. With a value of 2.63 percent for the LEQU STD, it can be deduced that there is not much equity capital dispersion. The minimum required is 8.4121, while the maximum allowed is 20.88. There are certain companies that have a large range of equity capital, while others have a low range. The logarithm of the total debt is 15.184. The overall debt accounts for 15.184 percent of the capital structure of the chosen manufacturing companies. The standard deviation, which was calculated to be 2.953 percent, reveals that there was very little clustering around the mean. The smallest amount of equity is 9.625, and the maximum is 20.83. This implies that certain manufacturing companies have high overall debt, while others have low debt relative to their total assets.

The average logarithm of long-term debt comes to 15,005. This indicates that the manufacturing company's long-term debt makes up 15% of its total capital

Issue 2/2022

structure. Since this figure is relatively low, it can be inferred that most of the sampled manufacturing companies had a lower-than-average level of long-term debt. Because the standard deviation of long-term debt is just 3.029 percent, it can be deduced that the tested manufacturing companies have very little variation in their long-term debt. The largest possible amount of long-term debt is 20,89, and the absolute lowest is 9,625. Because of this, the chosen manufacturing companies have varying degrees of long-term debt. The average logarithm value for is 13.798. This demonstrates that the chosen manufacturer's capital structure has a short-term debt component that is 13.798 percent. Because this value is low, most of the chosen manufacturing companies have below-average levels of short-term debt. The standard deviation of short-term debt for is 2.976 percent, which indicates modest short-term debt divergence across the tested manufacturing companies. The most that may be owed on a short-term basis is 19,71, while the absolute minimum is 7,4588. Because of this, the use of short-term debt among the manufacturing companies is variable. 17.139 is the mean value of the logarithm of total assets. This signifies that businesses have enough assets to continue operating. The range of values from maximum 22.57 to lowest 12.495 indicates a large amount of inconsistency across the selected companies. A standard deviation of 2.952 indicates that there is a significant amount of variation around the mean.

Table 2. Result of Pearson Correlation Matrix.

Var.	ROA	ROE	LEQU	LTOD	LTOA
ROA	1				
ROE	0.397	1			
LEQU	0.244	-0.258	1		
LTOD	0.34	0.351	0.327	1	
	0.276	0.492	0.22	0.09	
	0.335	-0.113	0.369	0.326	
LTOA	0.552	0.148	0.263	0.189	1

Source: Audited annual reports for the various years.

In the next table, Table 4.2, you'll find the Pearson correlation matrix. Return on assets, which is usually referred to by its acronym ROA, and return on equity are the factors that are being evaluated (ROE). Equity (LEQU), total debt (LTOD), long term debt (), short term debt (), and total asset (LTOA) are the variables that

are independent for a selection of manufacturing businesses in Nigeria. Using the 160 firm-year data collected from 10 distinct manufacturing businesses in Nigeria, we were able to arrive at each and every one of these values. Stata 14, which was used to assist in making the process of estimating easier,

According to the results of the research, which are summed up in table 4.2, there is a positive connection between ROA, ROE, LEQU, LTOD, and LTOA. In addition, there is a link between ROA and LTOA. The correlation coefficient for ROE is 0.397, while the correlation coefficients for LEQU are 0.244, LTOD are 0.34, and's is 0.276. LTOA's correlation value is 0.335. LTOA comes in at number one with a value of 0.552. Based on the data, it seemed that the various factors developed in the same direction across all of the organizations that were put through the tests during the course of the time period that was analyzed. However, a negative link was also found to exist between ROE and LEQU and, with the correlation coefficient for LEQU being -0.258 and the correlation coefficient for being -0.113. This finding supports the hypothesis that ROE is negatively correlated with LEQU and. On the other hand, a positive correlation was found to exist between ROE and LTOD., and LTOA. The correlation coefficient for LTOD was 0.351, the correlation coefficient for was 0.492, and the correlation coefficient for LTOA was 0.148. These results suggest that ROE and these three time periods are positively related to one another.

A positive correlation was found between LEQU and the other predictor variables, with values of 0.327 for LTOD, 0.22 for, 0.369 for, and 0.263 for LTOA accordingly. The findings also demonstrated that there is a relationship between LEQU and LTOA. It was shown that there was a positive correlation between the LTOD and the other predictor variables, with a value of 0.09 for, 0.326 for, and 0.189 for LTOA respectively. In addition, a positive correlation was discovered between and other predictor variables, with coefficient values of 0.243 for and 0.243 for LTOA. This finding was supported by the findings of the previous study. In the case of LTOA, this was likewise the situation. The value of 0.107 that was determined to be associated with shows that has a positive association with LTOA. To summarize, the results of this study demonstrated that there is a correlation between TOA and the other characteristics that serve as predictors.

The Repercussions that the Discoveries Will Have

According to the findings of the research that was carried out, the capital structure of publicly traded manufacturing companies in Nigeria, which is

Issue 2/2022

represented by total debt, equity, long term debt, short term debt, and total asset, has a positive impact on the performance of those companies. This impact can be broken down as follows: As the following notes will demonstrate, the conclusions of the inquiry have significant ramifications for the management of manufacturing enterprises as well as other stakeholders.

The results of this study indicated that there was a significant connection between increased equity and greater financial performance. This suggests that the management prefers increasing the company's equity rather than increasing the amount it borrows in order to boost the company's profitability.

4.3 Summary of Findings

Predictors	Null hypothesis (H ₀)	Coef.	Prob.	Remark
LEQU and ROA	Coefficient is not positively significant	6.34	0.000	Reject H ₀
LEQU and ROE	Coefficient is not positively significant	0.27	0.000	Reject H ₀
LTOD and ROA	Coefficient is not positively significant	6.33	0.000	Reject H ₀
LTOD and ROE	Coefficient is not statistically significant	0.12	0.000	Reject H ₀
LLTD and ROA	Coefficient is not positively significant	4.44	0.000	Reject H ₀
LLTD and ROE	Coefficient is not positively significant	0.07	0.043	Reject H ₀
LTOA and ROA	Coefficient is not statistically significant	0.00001	0.990	Accept H ₀
LTOA and ROE	Coefficient is not statistically significant	0.123	0.028	Reject H ₀

Source: Researcher's Computation, 2022

The results of the study indicate that a substantial contribution to the financial performance of a business may be attributed to the capital structure of the firm, which can be quantified in terms of the total debt, long-term debt, and total assets of the organization. This implies that the usage of a bigger quantity of long-term debt and total assets by manufacturing businesses in Nigeria leads to an increase in the earnings of their shareholders. This is the case since this information suggests that this is the case. In conclusion, the utilization of short-term debt has a tendency to augment the returns on investment of shareholders, although to a little degree. When it comes to the day-to-day administration of the company's operations, the

management of manufacturing enterprises is strongly opposed to the use of short-term debt. The average interest rate on short-term loan is often much higher, which is one factor that contributes to the overall low profitability of enterprises.

Based on the analysis carried out, the major findings were that:

i. Return on asset and return on equity have a positive significant influence on the performance of manufacturing companies in Nigeria, with 6.341 ($p=0.0000.05$) and 0.268 ($p=0.0000.05$) respectively.

ii. Total debt has a substantial beneficial influence on manufacturing business performance in Nigeria, with return on asset and return on equity of 6.331 ($p=0.0000.05$) and 0.117 ($p=0.0070.05$), respectively.

v. Total asset has a positive and significant influence on the performance of manufacturing businesses in Nigeria as measured by return on equity ($p=0.0280.05$) but has a positive and negligible effect on the performance of manufacturing firms as measured by return on asset ($p=0.99>0.05$).

4.5 Implication of Findings

Outcome of the analysis carried out unveiled that capital structure represented with total debt, equity, and total asset have a positive effect on the performance of listed manufacturing firms in Nigeria. The outcomes of the analysis have significant implication to the management of manufacturing firms and other stakeholders on the following notes:

- This study found out that financial performance increases at a significant level as equity increased. This implies that the management encourages more equity than debts in order to enhance profitability.

- The study found evidence that show capital structure in terms of total debt and total asset notably contributes to the financial performance of firms. This implies that more long-term debts and total assets employed by manufacturing firms in Nigeria contributes to the betterment the earnings of their shareholders.

Conclusion

The findings led to the following conclusions: equity capital, total debt, can significantly influence the financial performance of manufacturing firms in Nigeria; short-term debt can insignificantly influence financial performance; total asset can significantly influence financial performance.

Issue 2/2022

Recommendations

The following are the suggestions that have been made in light of the findings:

- i. When it comes to manufacturing companies who are looking to obtain financing for day-to-day operations or expansions, overall debt should take precedence. This is shown by the fact that the outcome, when total debt on its own is positively connected with financial performance considerably, demonstrates this point.
- ii. When trying to raise financing, manufacturing companies should make it their goal to guarantee that they are funded entirely by equity capital. A result that depicts a positive significant link with financial success provides proof for this assertion.
- iii. Additionally, manufacturing companies should issue more long-term debt and expand their employed assets in order to fund the operations of their business, provided that the value of the company may be enhanced using long-term debt. This is because the value of the company can be increased.
- iv. The upper management of manufacturing companies shouldn't put too much money into short-term debt since it doesn't allow them much more time to pay it back.
- v. The financial management of a company should devise a plan for the capital structure of their businesses that is open to public scrutiny, would provide an equitable distribution of ownership stakes, and will boost the profitability of the firms' operations. The government need to make provisions for ideas that would support the rate at which the economy increases in order to enable firms to increase their profit margins. This will help the economy grow faster. It's possible that studies with the same emphasis may be broadened to look at other aspects of the economy.

Reference

- [1] Abor, J. (2015). The effect of capital structure on profitability: An empirical analysis of listed firms in Ghana. *Journal of Risk Finance*, 6, 438-447.
- [2] Ahmad, Z., Abdullah, N. M. H. and Roslan, S. (2019). Capital structure effect on firms' performance: Focusing on consumers and manufacturing's sectors on Malaysian firms. *International Review of Business Research Papers*, 8(5): 137-155.
- [3] Oyedokun, J.L., Olatunji, O.O. & Sanyaolu, S.M. (2018). Sensitivity of Performance to Capital Structure. *European Journal of Social Science*, 7(1): 163-144.
- [4] Barbosa, N., & Louri, H. (2020). Corporate Performance: Does Ownership Matter? A Comparison of Foreign- and Domestic-Owned Firms in Greece and Portugal. *Review of Manufacturing Organization*, 27(1): 73-102.

- [5] Dare, F. D., & Sola, O. (2018). Capital structure and corporate performance in Nigeria petroleum industry: Panel data analysis. *Journal of Mathematics and Statistics*, 6(2): 168-173.
- [6] Frank, M., & Goyal, V. (2003). Testing the pecking order theory of capital structure. *Journal of Financial Economics*, 67, 217-48.
- [7] Iorpev, L., & Kwanum, I. M. (2012). Capital structure and firm performance: Evidence from manufacturing companies in Nigeria. *International Journal of Business and Management Tomorrow*, 2(5): 1-7.
- [8] Modigliani, F., & Miller, M. (1958). The cost of capital, corporate finance and the theory of investment. *American Economic Review*, 48, 261-297.
- [9] Myers, S. (1984). The capital structure puzzle. *Journal of Finance*, 39, 575-92.
- [10] Onaolapo, A. A., & Kajola, S. O. (2018). Capital structure and firm performance: Evidence from Nigeria. *European Journal of Economics, Finance and Administrative Sciences*, 25, 70-82.
- [11] Prahalathan, B., & Ranjan, R. P. C. (2011). The impact of capital structure-choice on firm performance: Empirical investigation of listed companies in Colombo stock exchange, Srilanka. *International Journal of Research in Commerce and Management*, 2(4): 12-17.
- [12] Saad, N. M. (2021). Corporate governance compliance and the effects to capital structure. *International Journal of Economics and Financial*, 2(1): 105-114.
- [13] Sunday, O. T., & Samson, T. B. (2019). Capital Structure and Corporate Performance of Malaysian Construction Sector. *International Journal of Humanities and Social Science*, 1(2):28-36.
- [14] Tian, G. G., & Zeitun, R. (2017). Capital structure and corporate performance: evidence from Jordan. *Australian Accounting Business and Finance Journal*, 1(4): 4053.
- [15] Tsuji, C. (2011). Recent development of the agency theory and capital structure. *Economics and Finance Review*, 1(6): 94-99.
- [16] Warokka, A., Herrera, J. J., & Abdullah, H. H. (2020). East Asian corporate governance: A test of the relation between capital structure and firm performance. *International Journal of Economics and Finance Studies*, 3(2): 1-10.

