

Effect of Capital Structure on the Performance of Brewery Firms in Nigeria

Ubesie, Madubuko Cyril

Department of Accountancy
Faculty of Management Sciences
Enugu State University of Science and Technology (ESUT), Enugu

Chime, Uchenna Augustine

Department of Accountancy
Faculty of Management Sciences
Enugu State University of Science and Technology (ESUT), Enugu

Joshua Andrew

Department of Accountancy
Faculty of Management Sciences
Enugu State University of Science And Technology (ESUT), Enugu

Okoh Isaac Chibuzo

Department of Accountancy
Faculty of Management Sciences
Enugu State University of Science And Technology (ESUT), Enugu

DOI: 10.56201/jafm.v8.no7.2022.pg81.100

ABSTRACT

The impact of capital structure on the performance of Nigerian brewery firms was investigated in this study. The precise aims for this research were as follows: determine the effects of long-term debt financing, short-term loan financing, and equity financing on the profit for the year of brewery enterprises in Nigeria. It was decided to use an ex – post facto study design. The study's analytical technique was a random panel regression model, with descriptive statistics and the unit root test as preliminary tests. Long-term loan financing, short-term debt financing, and equity financing all have a substantial impact on the profit of Nigerian brewery enterprises for the year. The study concluded that a firm's capital structure should be carefully constructed to protect the interests of stock holders, shareholders, and the firm's financial needs.

Keywords: *Capital Structure, long term debt financing, short term debt financing, equity financing and profit for the year.*

1.0 Introduction

Any company organization's capital structure selection is critical. Because of the necessity to maximize returns to multiple organizational constituents, as well as the impact such a decision has on a firm's ability to deal with its competitive environment, the decision is significant. The influence of this capital structure mix on company performance can be evaluated on the basis of the advantages and costs associated with each component of the fund, according to Nehu, Vintila, and Gherghina (2018). As a result, managers are frequently confronted with the difficult problem of determining an acceptable capital structure mix that will maximize the firm's financial performance.

According to Oke and Afolabi (2011), management frequently considers all accessible sources of financing available corporate projects, with the least priced source in mind. Oladele, Omotosho, and Adeniyi (2017) stressed the importance of an optimal capital mix when they stated that in order to enhance firm value, profitability, and shareholder wealth, an appropriate mix of debt and equity financing must be overlooked.

According to Onaolapo and Kajola (2010), firms' aims focus around ensuring that all stakeholders involved in the business are satisfied. A company's manager must make both funding and investment decisions that will help the company achieve its goal. One of the manager's top goals when making financing decisions is to ensure that the company's financing mix or capital structure is optimal. A company's capital structure can be seen of as a mechanism for it to fund its whole operations and expansion by combining several sources of funding. The ability of a company to meet the needs of its stakeholders is inextricably linked to its financial structure. In practice, determining a company's capital structure is difficult. In order to determine the best capital structure, a company may have to issue a variety of securities in an infinite mix in order to find a combination that maximizes its total value. The capital structure and financial performance are inextricably linked. Productivity, profitability, growth, and customer happiness are all criteria that can be used to assess a company's performance. These measurements are interconnected in some way.

To be adequately structured and efficiently utilized, a company's capital must be able to design various methods for picking the best components of its capital to be used in the company's operations in order to increase productivity and/or accomplish performance. This procedure should be based on criteria developed by the finance manager after comprehensive financial planning and control for the business (Narsaiah, 2020). A competent capital structure management will be distinguished from a poorly managed capital structure by the company's capacity to efficiently choose suitable sources of capital to finance its activities. As a result, the purpose of this research is to look into the impact of capital structure on the performance of Nigerian brewery enterprises.

Financial managers have used a variety of capital structures to achieve their goal of optimizing their target, which is generally based on quantitative performance. Debt and/or equity can be used to fund a company's investment. Financial leverage or gearing is the use of fixed-charged funds, such as debt and preference capital, in conjunction with the owner's equity in the capital

structure. An unlevered company is made up entirely of equity, whereas a levered company is made up of both equity and debt. Financial leverage is defined as a loan or other type of borrowing (debt) whose proceeds are (re)invested with the goal of earning a higher rate of return than the cost of interest.

If the firm's marginal rate of return on asset (ROA) exceeds the interest rate on the loan, its overall return on equity (ROE) will be higher than if it did not borrow (Nehu, Vintila & Gherghina, 2018). The firm's return on equity (ROE) will be lower than if it did not borrow if the return on assets (ROA) is lower than the interest rate. Leverage allows investors to earn higher potential returns than they could otherwise, but it also raises the risk of loss: if the investment loses value, the loan principle and any accrued interest must be repaid (Andy, Chris & Mike, 2002). This is a high-risk venture.

Researchers have been concerned about the impact of capital structure on company performance in Nigeria, and there is still no definitive empirical evidence on the subject. Firms in Nigeria are faced with finance considerations regarding the right capital structure mix for the organization, and these decisions are critical to the firm's profitability. In Nigeria, investors rarely evaluate the significance of the intricacies of the capital structure mix and how that mix influences the firm's performance. Financial limitations have had a significant impact on the success of corporate firms in emerging countries, particularly Nigeria. The development and deepening of various financial markets in Nigeria serves as the foundation for determining the optimal capital structure of business sectors. According to Abdur (2018), the corporate sector is defined by a huge number of enterprises functioning in an increasingly competitive and unregulated environment. Since 1987, financial liberalization has changed the working environment of businesses by allowing Nigerian financial managers more freedom in determining the capital structure of their companies. This finance decision will have a significant impact on the company's profitability. As a result, the purpose of this research is to look into the impact of capital structure on the performance of Nigerian brewery enterprises. The study will be guided by the following objectives: Determine the impact of long-term debt financing on profit for the year of brewery firms in Nigeria; investigate the impact of short-term debt financing on profit for the year of brewery firms in Nigeria; and determine the impact of equity financing on profit for the year of brewery firms in Nigeria. Champion Brewery Plc, Guinness Nigeria Plc, International Breweries Plc, and Nigeria Breweries Plc are among the breweries chosen. The study's time frame was from 2011 through 2020. Long-term debt financing, short-term loan financing, equity financing, and year-end profit are among the variables examined in the study.

Literature Review

2.1 Conceptual Review

2.1.1 Capital Structure

The capital structure of a corporation is made up of long-term debt, short-term debt, and equity capital, and it demonstrates how the company finances its entire operations and growth by combining various sources of funding (Udobi-Owoloja, Gbajumo-Sheriff, Umoru, Babatunde & Ilimezekhe, 2020). The capital structure of a corporation varies depending on its size, kind, and other factors such as the company's age, size, asset structure, profitability, growth, risk, and liquidity (Abor, 2014). The goal of capital structure management is to combine financial sources

in order to maximize shareholder wealth while lowering the company's cost of capital. The composition of a company's liability, which is relative to numerous financial sources in the composition of the overall obligation, is referred to as capital structure. Any business's capital structure selection is critical; every organization seeks a combination of arrangements that ultimately achieves or grows its performance, profitability, and total value (Nwude & Anyalechi, 2018).

The best capital structure for a corporation is one that has the fewest cost implications and maximizes the firm's total value. It could be gained through a combination of debt and equity financing, resulting in a low cost of capital and increased market value for the company. Debt capacity refers to the amount of debt contained in a company's ideal capital structure (Khatoun & Hossain, 2019).

Financing is one of the most important aspects of a company since a financing manager is responsible for determining the appropriate financing mix and combination of debts and equity for the company. A company's capital structure decision is the combination of debt and equity it utilizes to finance its operations (Warrad, Al-Nimer & Al-Omari, 2016). One of the advantages of capital structure is that it is closely linked to a company's ability to meet the needs of many stakeholders since it represents the principal claims on a company's assets, which comprise various types of both equities and liabilities (Wasfi & Haneen, 2016). According to Yinusa, Ismail, Yulia, and Olawole (2019), a firm's capital structure refers to the combination of debt and equity that it considers appropriate to improve its operations. As a result, the money with which a business firm finances its operations and growth are made up of a mix of long-term liabilities, specific short-term obligations such as bank notes, ordinary equity, and preferred equity. A company's capital structure is essentially the right side of its balance sheet.

2.1.2 Short Term debt Financing

Short-term debt financing has a one-year or shorter maturity period and must be returned within 90 to 120 days (Agbonrha-Oghoye & Umoru, 2017). Term loans with short maturities assist in meeting immediate financial needs without requiring a long-term commitment. Short-term debt servicing is less expensive for the company because interest rates are often lower, and most lenders do not charge interest until the credit allowance period has been exceeded.

Investors and creditors, according to Dada and Ghazali (2016), utilize a variety of financial parameters to analyze liquidity risk and leverage. The debt ratio is a calculation that compares a company's total debt to its total assets to determine how indebted it is. The lower the percentage, the less leverage a corporation is utilizing and the more equity it has. The higher the ratio, the greater the financial risk that a corporation assumes. The long-term debt-to-total-assets ratio and the long-term debt-to-capitalization ratio, which divide noncurrent liabilities by available capital, are two further options: Analysts also utilize coverage ratios to analyze a company's financial health, according to Chechet and Olayiwola (2014), including the cash flow-to-debt and interest coverage ratios. The cash flow-to-debt ratio calculates how long it would take a company to pay off its debt if it used 100% of its cash flow. The interest coverage ratio measures whether a company's earnings before interest and taxes (EBIT) are sufficient to cover periodic loan interest payments. It is computed by dividing EBIT by periodic debt interest payments.

2.1.3 Long Term Debt Financing

Long-term debts are those that aren't due to be paid off within a year. These liabilities are categorised separately from current liabilities in an entity's balance statement (Barako, 2012). Long-term debt instances cited by Mohd, Muammar, and Ainatul (2014) include:

Payable portion of long-term debt

Bonds payable over a long period of time

According to Abdur (2018), the total amount of long-term debt is commonly compared to a company's cash flows to see whether it has the financial resources to meet its long-term obligations. If this does not happen, creditors will be less willing to do business with the organization, and investors will be less willing to put money into it. The stability of an organization's cash flows is a component to examine in this assessment, as consistent flows can support a bigger debt load with a lower chance of default.

To determine whether a corporation will be able to satisfy its financial obligations, long-term debt is compared to cash flow. Long-term investors use long-term debt to determine whether a firm is using excessive leverage. While lenders are primarily concerned with short-term liquidity and the quantity of current liabilities, long-term investors use long-term debt to determine whether a company is using excessive leverage. The more reliable a company's cash flows are, the more debt it can take on without putting itself at risk of default. Investors and creditors employ a variety of financial ratios to assess liquidity risk and leverage, according to Akintoye (2008), and the debt ratio compares a company's total debt to total assets to give a rough notion of how indebted it is. The lower the percentage, the less leverage a corporation is utilizing and the more equity it has. The higher the ratio, the greater the financial risk that a corporation assumes. The long-term debt-to-total-assets ratio and the long-term debt-to-capitalization ratio, which divides long-term debt by available capital, are two further variations.

2.1.4 Equity Financing

Equity financiers aim to keep as much of the company's ownership as feasible in order to maximize returns on investment and innovation while maintaining corporate control. As a result, Mohd, Muammar, and Ainatul (2014) describe equity financing as the process of obtaining funds through the sale of a company's stock. The sale of an ownership interest to raise capital for commercial purposes is referred to as equity financing (Abdul, 2012). According to Abor (2014), equity financing encompasses a wide variety of activities in terms of scale and scope, ranging from small business capital obtained from friends and family to multibillion-dollar Initial Public Offerings (IPOs) by corporations and conglomerates. While the word "equity financing" is usually linked with financings by publicly traded corporations, it also refers to financings by private companies. The term "equity financing" differs from "debt financing," which refers to money borrowed by a company. Other equity or quasi-equity instruments such as preferred stock, convertible preferred stock, and equity units that include common shares and warrants are sold as part of the equity financing process.

According to Barako (2012), selling stock in a company is a typical technique for firms to raise funds. Debt financing, on the other hand, is when a company takes out a loan from a bank. Equity finance is commonly utilized as a seed capital for new firms or as additional capital for

existing organizations looking to develop. The most popular method of obtaining equity finance is to sell ordinary stock shares in the company.

2.1.5 Profit for the Year

Corporate profits, according to Narinder and Mahima (2019), indicate the money earned by corporations as a result of current output; the measure is defined as current production receipts less associated expenses. Dividends and capital gains are not included in receipts, and bad debts, natural resource depletion, and capital losses are not included in expenses. According to Narsaiah (2020), most businesses prepare two sets of profit data: financial and tax. Both financial accounting and tax accounting describe a corporation's earnings as the difference between its receipts and expenses, but they differ in the definition of some receipts and expenses, as well as when and for whom the information is provided.

Profit, according to Barako (2012), is an income provided to the owner in a profitable market manufacturing process (business). Profit is a metric of profitability that reflects the owner's primary interest in the process of market production revenue generating. There are a variety of profit measurements that are often used.

One of the most closely watched economic indicators is corporate earnings. According to Raheman and Nasr (2007), profitability serves as an important indication of economic performance since it provides a summary measure of company success or failure. Profits are a source of retained earnings, which provide a large portion of the cash for plant and equipment upgrades that increase productivity. They're also commonly employed to calculate the rate of return on investment and the relationship between earnings and stock price. Profits can also be used to assess how changes in policy or economic conditions affect businesses.

2.1.6 Effect of Capital Structure on Firm Performance

The capital structure of a firm refers to how it finances its assets through a combination of stock, debt, and hybrid securities. According to Abdul (2012), a firm, whether it is new or established, requires funds to carry out its operations. Capital is the name given to this fund. As a result, capital refers to the means by which a company is funded. Firms looking to raise funding for their activity might turn to two key sources. Internal and external sources are included in this list (Abdur, 2018). Internal sources are monies created within a company; external sources are funds generated outside of the company. External money can be obtained through expanding the number of co-owners in a company, borrowing outright in the form of a loan, or issuing debentures, bonds, or other debt instruments (Mukumbi, Khisa & Shu, 2020).

Financial managers are concerned with determining the appropriate financing mix, or the best combination of debt and equity that the company has available. A company's capital structure decision refers to the mix of debt and equity it utilizes to fund its operations. According to Abor (2014), one of the most important aspects of capital structure is that it is closely linked to a company's ability to meet the demands of diverse stakeholders since it represents the principal claims on a company's assets, which comprise numerous types of both equities and liabilities.

Financial managers are concerned with determining the appropriate financing mix, or the best combination of debt and equity that the company has available. A company's capital structure decision refers to the mix of debt and equity it utilizes to fund its operations. According to Abor (2014), one of the most important aspects of capital structure is that it is closely linked to a company's ability to meet the demands of diverse stakeholders since it represents the principal claims on a company's assets, which comprise numerous types of both equities and liabilities.

2.2 Theoretical Review

This study was built on the following theories:

2.2.1 MM Theory According to Oladele, Omotosho, and Adeniyi (2017), Modigliani and Miller proposed a theory in 1958 that states that a firm's market value is determined by its earning power and that the risk of its underlying assets is independent of how it chooses to finance its investments or distribute dividends. The hypothesis said that a company's entire market value is unaffected by its capital structure. The M and M proposition assumes that financial markets are perfect, that individuals and firms are price takers, that transactions are frictionless, that all agents are rational, that all agents have the same information, that a firm's cash flows are unaffected by its financial policy (or bankruptcy costs), and that there are no taxes. Taxes, transaction costs, and bankruptcy costs exist in the real world, as do variances in borrowing costs, information asymmetries, and the effects of debt on profits. Therefore to understand how the M and M proposition works after factoring in corporate taxes, many scholars had queried the M-M proposition.

2.2.2 Trade-Off Theory

Paul Krugman proposed the trade-off hypothesis, which he developed in the late 1970s and early 1980s. According to the trade-off hypothesis, there are advantages to using leverage within a capital structure until the optimal capital structure is found. The idea takes into account the tax benefit of interest payments, as interest paid on debt is deductible, whereas issuing bonds effectively lowers a company's tax liability (Nehu, Vintila & Gherghina, 2018). According to the hypothesis, a company's return on equity to shareholders increases in a linear fashion as the quantity of debt in its capital structure increases. Because higher debt levels increase the danger of investing in the company, shareholders want a larger risk premium on the shares. The theory proposes that a corporation balances the costs and advantages of debt and equity financing when deciding how much debt and equity financing to deploy.

It identifies the advantages of debt financing, such as the tax benefits of debt, as well as the disadvantages of debt financing, such as financial difficulties and debt bankruptcy charges. According to the static trade-off theory of capital structure, firms will choose their debt and equity financing mix to balance the costs and advantages of debt and equity financing (Oke & Afolabi, 2011). It should be noted, however, that a company's overall cost of capital cannot be continuously reduced by using debt. As a result, increasing debt would be counterproductive, so a mix of debt and equity is used to reduce the firm's average cost of capital while increasing market value per share.

This research is based on the MM theory, which is based on the assumption that interest payments provide tax benefits. The interest you pay on borrowed money is deductible. Dividends paid on equity, on the other hand, are not treated the same way. In other words, because of tax incentives, the actual cost of debt is lower than the nominal cost of debt.

2.3 Empirical Review

Ariekpar (2020) looked on the relationship between capital structure and manufacturing firm performance in Nigeria. The study employed a fixed effect regression model to see if capital structure had a substantial impact on business performance. The findings demonstrated that

capital structure had a favorable and significant impact on selected Nigerian enterprises' financial performance.

From 2014 to 2019, Narsaiah (2020) investigated the impact of capital structure on financial performance. For panel data analysis, the researchers used econometric models, including pooled OLS estimation, fixed effect, and random effect methodology, as well as the Hausman test and Ramsey RESET. The company's performance was examined using four accounting measures: return on equity (ROE), return on assets (ROA), earnings per share (EPS), and Tobin's Q. For this investigation, Pearson's correlation and regression techniques were used. According to the findings, capital structure factors have a strong negative association with financial performance as evaluated by ROA, EPS, and Tobin's Q. Long-term debts and overall debts, on the other hand, had a negative impact on financial performance, but short-term debts had a positive impact.

Sovaniski (2020) looked on the effect of capital structure on the financial performance of Kurdish industrial companies. Return on equity was used as an independent variable, with capital structure, liquidity, size, and growth as independent factors in a multiple linear regression. These variables were utilized to see if capital structure decisions have an impact on manufacturing firm profitability in Kurdistan. The regression equations' results revealed a negative relationship between overall debt, size, and financial performance.

From 2009 to 2018, Appah and Tebepah (2020) conducted research on the optimization of capital structure and return on assets of listed non-financial enterprises in Nigeria. The data for this study came from the annual reports of the sampled firms, and the analysis included multiple regression using the ordinary least square technique of pooled regression, fixed effects, and random effects. The findings revealed that both debt to capital employed (DCE) and equity to capital employed (ECE) are inversely associated to return on assets (ROA) (ECE).

Ezu (2020) looked into the impact of capital structure on the financial performance of Nigerian oil and gas businesses listed on the stock exchange. Secondary data was meticulously gathered from the financial statements and annual reports of the Nigerian Stock Exchange-listed oil and gas businesses. From 2005 to 2018, the data is available. E-views The data collected was analyzed using 10.0 software. Total debt to total assets has no significant effect on return on assets of oil and gas companies quoted on the Nigerian Stock Exchange, but total debt to total equity has a significant effect on return on equity of oil and gas companies quoted on the Nigerian Stock Exchange, according to the findings of the study.

From 2008 to 2013, Koech, Kimetto, and Rono (2020) investigated the impact of capital structure on business financial performance in Kenya. Explanatory non-experimental research was used in this study. Secondary data was gathered from public annual reports and financial statements of the NSE's listed companies for the years 2008 to 2013. The data was entered into the Statistical Program for Social Sciences (SPSS), and the hypotheses were analyzed and tested using the multiple regression analysis approach. The findings revealed that while equity and long-term debt have a favorable and significant impact on financial performance, short-term debt has a negative and significant impact.

A meta-analysis of capital structure and company performance was conducted by Binh and Tram (2020). The analysis was separated into two parts using secondary data, with the first focusing on the overall strength of the link, the effect size, and potential paper-specific features impacting the degree of leverage-firm performance consequences (moderators of the relationship). The researchers used regression analysis to discover that business success is adversely correlated with capital decisions, pointing to a trade-off model with agency costs and pecking order theory. The estimation produces a tiny effect size, implying that a large sample size is required to study the problem adequately.

In India, Narinder and Mahima (2019) investigated the impact of capital structure on profitability. Descriptive statistics, correlation, and multiple panel data regression models were used to examine the data. The relationship between capital structure and profitability was investigated using four different regression models. The individual effects of total debt and total equity ratios on profitability were investigated in these models. Pooled OLS, fixed effects, and random effects were used to evaluate all of the models. As a result, it was discovered that capital structure has a large favorable impact on a firm's profitability.

Mukumbi, Khisa, and Shu (2020) looked studied how capital structure affects the financial performance of non-financial enterprises listed on the Nairobi Securities Exchange. The research focused on 16 non-financial companies that operated in Kenya and were listed on the Nairobi Stock Exchange (NSE) between 2013 and 2017. Secondary data was gathered from audited financial statements acquired from corporate websites and the NSE manual from 2013 to 2017. The statistical analysis, which was carried out with the help of STATA version 15, included correlation and regression analysis. The findings revealed that the capital structure of companies listed on the Nairobi stock exchange has a direct impact on their financial success. The findings revealed that as the amount of debt in a company's capital structure varies, its financial performance improves.

Using the dynamic panel model on panel data of 115 listed non-financial enterprises in Nigeria, Yinusa, Ismail, Yulia, and Olawale (2019) investigated the impact of capital structure on company performance in Nigeria. The research found a statistically significant link between capital structure and firm performance, especially when debt financing is used moderately. However, when firms in Nigeria used excessive debt financing, the report discovered evidence of a non-monotonic link between capital structure and firm performance, which had an impact on firm performance.

The empirical examination of capital structure and business financial performance in a developing country was studied by Hossain, Khan, and Khalid (2019). The investigation was carried by using a panel data approach on a sample of the Dhaka stock market from 2013 to 2017, which included all IT firms. For this investigation, a random panel regression model was used. Capital structure has a favorable and considerable impact on return on asset, according to the research.

Uremadu and Onyekachi (2019) used the Ordinary Least Square (OLS) analytical technique to investigate the impact of capital structure on company performance in Nigeria. The study's

findings revealed that capital structure has a negative and minor impact on company performance in Nigeria's consumer goods sector. The long-term debt-to-total-asset ratio had a negative and small influence on asset returns, whereas the total debt-to-equity ratio had a negative and insignificant impact on asset returns.

From 1999 to 2011, Khatoon and Hossain (2019) investigated capital structure and corporate financial performance in Dhaka. Short-term debt and cash flows have a strong positive effect on performance indicators, according to panel data regression Fixed Effects Model (FEM) study. Long-term loans, tangibility of assets, and liquidity, on the other hand, have a considerable negative impact on financial performance factors, with the exception of ROE. Bangladeshi cement companies have had poor accounting performance over the years, according to this report.

From 2011 to 2018, Udobi-Owoloja, Gbajumo-Sheriff, Umoru, Babatunde, and Ilimezekhe (2020) studied capital structure and company profitability in Nigeria. The data was collected from the published financial reports of ten (10) randomly selected listed companies on the Nigerian Stock Exchange for the period under consideration. The Debt to Asset Ratio (DAR) is positively significant on Return On Asset (ROA) (Proxy for profitability) in panel regression results, however other capital structure proxies such as Debt to Equity (DER) and Liquidity Ratio (LIQ) are not statistically significant. Short Term Debt to Total Asset Ratio (SDTA) has a negative association with profit, Company Size (FS) has a weak link with profit, and Long Term Debt to Total Asset Ratio (LDTA) has no effect on firm profitability in Nigeria's consumer goods sector.

Using panel regression, Rahman, Sarker, and Uddin (2019) evaluated the impact of capital structure on the profit of ten chosen manufacturing enterprises in Bangladesh over a five-year period. The findings revealed that debt and equity have a beneficial impact on business performance, however debt to equity ratio has a significant negative impact on the performance of the Dhaka Stock Exchange's selected manufacturing enterprises.

Between 2006 and 2017, Rosario and Chavali (2019) examined the impact of capital structure on the profitability of twenty-two (22) hotels in India. In India, the regression study revealed that debt has a favorable impact on hotel performance.

Dang, Bui, and Nguyen (2019) looked studied the relationship between capital structure and performance of 61 food and beverage companies in Vietnam from 2000 to 2017. The study used a random effect panel regression model, and the results revealed that debt ratio had an impact on ROE and EPS but not on ROA. It means that a company financed with a high amount of debt performs better in terms of ROE but poorly in terms of ROA.

3.0 Methodology

3.1 Research Design

Ex-post facto research was used by the researcher. The ex-post facto method was used since the study relied on previously recorded occurrences, and the researchers lacked control over the important dependent and independent variables to manipulate them (Onwumere, 2009).

3.2 Population of the Study

All of the breweries listed on the Nigerian stock exchange were included in the study's population. On the Nigeria Stock Exchange, there are a total of five (5) brewery companies (<https://nigerianinfopedia.com.ng/listedcompanies-in-the-nigerian-stock-exchange/2019>). They are;

Nigeria Breweries Plc,
Guinness Nigeria Plc,
Champion Brewery Plc,
Golden Guinea Brewery Plc, and
International Breweries Plc,

3.3 Sample Size Determination

The sample size consists of four (4) out of five (5) listed brewery firms in the Nigerian Stock Exchange. These four firms were selected because one of the listed brewery firms, Golden Guinea Brewery Plc has not been in operation since 2003 due to a fire incident in the factory and it has not been preparing its financial report since then. Therefore, the sample size comprised of Champion Brewery Plc, Guinness Nigeria Plc, International Breweries Plc and Nigeria Breweries Plc.

3.4 Model Specification

The model of the study is based on the classical linear regression model of Brooks (2014). The model is shown as follows;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + \mu_t \quad 1$$

Where;

Y = dependent variable

X_1, X_2, \dots, X_n = Explanatory or independent variable

$\beta_1, \beta_2, \dots, \beta_n$ = the slope of coefficient of the parameter estimate

μ = Error or disturbance term

t = time

In relating this to the study

$$PFY = F(LDF, SDF, EF) \quad 2$$

Relating it in econometric form and the variable

$$\log PFY = \beta_0 + \beta_1 \log LDF + \beta_2 \log SDF + \beta_3 \log EF + \mu_t \quad 3$$

Where

PFY = Profit for the Year

LDF = Long Term Debt Financing

SDF = Short Term Debt Financing

EF = Equity Financing

β_0 = Constant/intercept term

β_1, β_2 & β_3 = Coefficient of the parameter estimate or the slope

μ = Error or disturbance term

t = time period

Apriori Expectation: It is expected that $\beta_1, \beta_2, \beta_3, > 0$

3.5 Analytical Procedure

As preliminary testing, the study used the unit root test and descriptive statistics. The stationarity qualities of the variables were measured using the unit root test, and the individual characteristics of the variables were determined using descriptive statistics.

To evaluate if fixed effect random panel regression is a better model than random effect random panel regression, the Hausman test was utilized.

If the P-value is less than 5%, reject the null hypothesis; else, accept the null hypothesis.

Data Presentation and Analysis

4.1 Data Presentation

The organizing of data into tables, graphs, or charts such that logical and statistical inferences can be drawn from the collected measurements is referred to as data presentation.

Table 1: Pooled data of Nigerian Breweries Plc, Champion Breweries Plc, International Breweries Plc and Guinness Nigeria Plc

	LDF(N' B)	SDF (N' B)	EF (N' B)	PFY (N' B)
NB PLC – 11	51489507	85652875	78304741	38434033
NB PLC – 12	73351269	86834468	93447892	38042714
NB PLC – 13	40104733	100295715	112359185	43080349
NB PLC – 14	63239328	114554626	171882830	42520253
NB PLC – 15	43818068	140655590	172233465	38049518
NB PLC – 16	56977573	144856800	165805542	28396777
NB PLC – 17	47876701	156698905	178150934	33009292
NB PLC – 18	81738989	140383143	166644184	19401169
NB PLC – 19	127528326	87499217	167564562	16104763
NB PLC – 20	209075927	74210570	161150877	7525621
CHAMPION BR - 11	-6857170	-522393	-2029809	-1825759
CHAMPION BR - 12	62995	10166205	-3430000	-1336690
CHAMPION BR - 13	62827	13683275	-4608386	-1178025
CHAMPION BR - 14	143021	3578929	5870431	-754523
CHAMPION BR - 15	133525	3073998	7121637	77140
CHAMPION BR - 16	82207	2208173	7670860	530389
CHAMPION BR - 17	325828	1627573	8135460	-517562
CHAMPION BR - 18	245987	2305491	7935532	-263807
CHAMPION BR - 19	385131	2564456	8031796	168508
CHAMPION BR - 20	1073866	2251657	8042994	158793
INT'L – 11	2551398	10153591	1583323	-1685342

INT'L – 12	5802072	7854517	9380173	2506490
INT'L – 13	5797254	7859335	9380173	2327342
INT'L – 14	6496170	6604447	11269923	2105500
INT'L – 15	8028123	9975208	12168259	1946490
INT'L – 16	3543981	15940734	13997391	2652748
INT'L – 17	43566043	167878669	42375992	-4419739
INT'L – 18	177175915	99669724	35238533	-3947083
INT'L – 19	153576770	204106062	7463699	-2853713
INT'L – 20	12992367	189666168	151842112	-3711224
GUINNESS - 11	40283492	7833871	40283492	17927934
GUINNESS - 12	40352504	-1373825	40352504	14671195
GUINNESS - 13	23746413	51275097	46039111	11863726
GUINNESS - 14	43018077	44248479	45061717	9573480
GUINNESS - 15	27804912	46100344	48341376	7794899
GUINNESS - 16	28222217	67109622	41660605	-2015886
GUINNESS - 17	39375539	63719662	42943015	1923720
GUINNESS - 18	22819679	42847115	87588174	6717605
GUINNESS - 19	22875691	48856474	89060462	5483732
GUINNESS - 20	10509465	60597976	73038140	-12578818

Source: Financial Statements of the selected companies from 2005 to 2019.

N/B:

LDF = Long Term Debt Financing
 SDF = Short Term Debt Financing
 EF = Equity Financing
 PFY = Profit for the Year

Long-term loan financing, short-term debt financing, equity financing, and profit for the year were all shown in Table 1. These figures were taken from the financial statements of the companies under investigation.

Table 2: Logged pooled data of Nigerian Breweries Plc, Champion Breweries Plc, International Breweries Plc and Guinness Nigeria Plc

	LDF (N' B)	SDF (N' B)	EF (N' B)	PFY (N' B)
NB PLC – 11	5.338691	14.39835	14.33420	17.45440
NB PLC – 12	5.398841	14.39512	14.35121	17.16179
NB PLC – 13	5.437557	14.61910	12.03660	13.43498
NB PLC – 14	5.456261	15.01015	12.07274	13.98407
NB PLC – 15	5.467638	15.06880	12.10478	14.45994
NB PLC – 16	5.475040	15.16746	12.12763	14.52763
NB PLC – 17	5.481014	15.37939	14.40703	14.22138
NB PLC – 18	5.487656	18.05212	14.35218	14.84951
NB PLC – 19	5.861498	18.30581	15.99107	14.04384
NB PLC – 20	6.252809	18.51022	15.71913	14.48062
CHAMPION BR -				
11	6.314254	18.63307	13.82595	17.23977
CHAMPION BR -	6.632371	18.57307	15.23350	17.28156

12				
CHAMPION BR -				
13	6.867860	18.62332	15.22200	17.33488
CHAMPION BR -				
14	7.049949	18.50871	14.88716	11.88350
CHAMPION BR -				
15	6.823145	18.59039	15.07165	13.79362
CHAMPION BR -				
16	6.774041	18.44022	14.92297	11.65095
CHAMPION BR -				
17	7.010664	18.65116	15.39742	11.63514
CHAMPION BR -				
18	7.172688	18.79542	15.48107	11.85154
CHAMPION BR -				
19	7.130669	18.91664	15.83951	12.40861
CHAMPION BR -				
20	7.149769	18.95040	19.65779	12.02562
INT'L – 11	9.792202	15.77909	12.09010	12.94944
INT'L – 12	9.847403	15.73232	10.00604	13.29413
INT'L – 13	9.674469	16.02792	12.07626	13.39757
INT'L – 14	9.733418	16.07648	12.91041	13.40456
INT'L – 15	9.838164	16.15048	13.02793	13.65005
INT'L – 16	9.783864	16.11421	13.38228	13.90760
INT'L – 17	9.807277	16.12694	14.39563	11.68412
INT'L – 18	9.829011	18.12840	14.43449	13.77192
INT'L – 19	9.935825	18.11780	14.84775	12.18332
INT'L – 20	10.09808	18.17729	15.16308	12.28857
GUINNESS – 11	10.11837	18.37416	15.11056	12.35793
GUINNESS – 12	10.90801	18.47904	15.38373	12.08785
GUINNESS – 13	11.05058	18.61180	15.95869	12.39421
GUINNESS – 14	11.18044	18.70080	12.64174	12.04718
GUINNESS – 15	11.29094	18.62155	12.99066	12.60317
GUINNESS – 16	11.39688	18.73544	17.14769	18.95040
GUINNESS – 17	11.45259	18.79938	19.79202	15.77909
GUINNESS – 18	11.38710	18.46386	19.84403	15.73232
GUINNESS – 19	11.73922	18.48823	19.67469	16.02792
GUINNESS – 20	19.40041	18.68981	19.83652	16.07648

Source: Compilation from Eviews 10.0

Table 2 displayed data from the year, including logged values for long-term loan financing, short-term debt financing, equity financing, and profit. To improve the regression outcome, these data were recorded to compress their values.

4.2 Data Analysis

4.3 Test of Hypotheses

The hypotheses of this research were tested using panel least square based on the premise that the analysis was done using pooled data of the companies under study.

Test of Hypothesis one**Step 1: Restatement of the hypothesis.**

Long term debt financing does not have significant effect on profit for the year of brewery firms in Nigeria.

Step 2: Presentation of Test Result**Table 3: Test of Hypothesis One**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LLDF	0.064367	0.116177	0.554041	0.0030
C	17.10234	3.400035	5.030049	0.0000

Source: Researcher's Compilation from Eviews 10.0, 2021

Table 4: Combined Regression Result

R-squared	0.877560
Adjusted R-squared	0.709023
F-statistic	2.590722
Prob(F-statistic)	0.007799
Durbin-Watson stat	1.655165

Source: Researcher's Compilation from Eviews 10.0, 2021

The R2 is 0.877560, or nearly 88 percent, as shown in Table 3. To explain the goodness of fit, the R2 is utilized. As a result, since it is around 88 percent, it means that the independent variables account for roughly 88 percent of the change in the dependent variable, profit for the year, and the higher the R2, the better the independent variables match. Because the F – statistics is more than 2.5 and the probability value is 0.007799, the probability value is 0.05. This demonstrates the model's importance and excellent goodness of fit. The absence of autocorrelation is indicated by the Durbin – Watson statistic being almost equal to two (2).

Step 3: Decision Rule

Reject H_0 if the probability value is <0.05 .

Step 4: Decision

The probability value of 0.0030 0.05 is shown in Table 4. The null hypothesis (H_0) is rejected, and we conclude that long-term debt financing has a considerable impact on brewery profits in Nigeria.

Test of Hypothesis Two**Step 1: Restatement of the hypothesis.**

Short term debt financing does not significantly affect the profit for the year of brewery firms in Nigeria.

Step 2: Presentation of Test Result**Table 5: Test of Hypothesis Two**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LSDF	-0.523021	0.250318	-2.089424	0.0438
C	17.10234	3.400035	5.030049	0.0000

Source: Researcher's Compilation from Eviews 10.0, 2021

Step 3: Decision Rule

Reject H_0 if the probability value is <0.05 .

Step 4: Decision

Table 5 shows that the probability value of $0.0438 < 0.05$. We reject the null hypothesis (H_0) and conclude that short term debt financing significantly affect the profit for the year of brewery firms in Nigeria.

Test of Hypothesis Three

Step 1: Restatement of the hypothesis.

Equity financing does not have significant effect on the profit for the year of brewery firms in Nigeria

Step 2: Presentation of Test Result

Table 6: Test of Hypothesis Three

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LEF	0.443530	0.166868	2.657963	0.0117
C	17.10234	3.400035	5.030049	0.0000

Source: Researcher's Compilation from Eviews 10.0, 2021

Step 2: Decision Rule

Reject H_0 if the probability value is < 0.05 .

Step 3: Decision

Table 6 shows that the probability value of $0.0117 < 0.05$. We reject the null hypothesis (H_0) and conclude that equity financing has significant effect on the profit for the year of brewery firms in Nigeria.

4.4 Discussion of Results

Based on the assumption that the probability value of 0.0030 was less than 0.05 , long-term debt financing had a substantial effect on profit for the year of brewery enterprises in Nigeria. This finding is consistent with Koech, Kimetto, and Rono's (2020) findings, which looked at the impact of capital structure on financial performance of Kenyan enterprises from 2008 to 2013. They discovered that long-term debt and equity have a positive and large impact on financial performance, but short-term debt has a negative and significant impact. The discovery was in agreement with Uremadu and Onyekachi's findings (2019). They used the Ordinary Least Square (OLS) analytical technique to investigate the impact of capital structure on corporate performance in Nigeria and discovered that the long-term debt ratio to total asset had a negative and minor impact on returns on assets.

Because the likelihood value of 0.0438 was smaller than 0.05 , short-term loan financing had a substantial impact on the profit of brewery enterprises in Nigeria for the year. This is consistent with Narsaiah's (2020) findings, which looked at the impact of capital structure on financial performance from 2014 to 2019. Long-term debts and total debts harmed financial performance, while short-term debts aided financial performance, according to the author.

Because the probability value of 0.0117 was less than 0.05 , equity financing had a substantial impact on the earnings of Nigerian brewery enterprises for the year. Rahman, Sarker, and Uddin (2019), who used panel regression to investigate the impact of capital structure on the profit of ten selected manufacturing firms in Bangladesh over a five-year period and found that debt and equity have a positive impact on the firms' performance, agreed with the findings of this study.

Summary of Findings, Conclusion and Recommendations

5.1 Summary of Findings

The summary of findings of this study includes the following”

1. Long-term debt financing has a substantial impact on breweries' annual profits in Nigeria.
2. Brewery enterprises in Nigeria see a considerable impact on their annual profit due to short-term debt financing.
3. Equity financing has a substantial impact on breweries' annual profits in Nigeria.

5.2 Conclusion

To be adequately structured and efficiently utilized, a company's capital must be able to design various methods for picking the best components of its capital to be used in the company's operations in order to increase productivity and/or accomplish performance. This procedure should be based on well-defined criteria developed by the finance manager following thorough financial planning and control for the organization. A competent capital structure management will be distinguished from a poorly managed capital structure by the company's capacity to efficiently choose suitable sources of capital to finance its activities.

5.3 Recommendations

The following recommendations are made for this study:

1. 1. A firm's capital structure should be well-planned to protect the interests of stock holders, shareholders, and the firm's financial needs.
2. 2. Companies should strive to optimize their capital structure by using an optimal mix of loan and equity capital. Firms should find a balance between their capital structure decision and its impact on performance, as it influences the risks, returns, and cost of capital for shareholders.
3. 3. The research study also suggests that the government regulate the banking industry to reduce the cost of debt acquisition and improve firm performance, as many businesses rely on debt financing to satisfy their financial demands. The high cost of debt financing, as represented by high borrowing interest rates, is a hindrance to the expected corporate growth rate, and financial managers should be aware of the implications of such capital structure changes on the financial performance of their companies.

References

- Andy, N., Chris, A. & Mike, K. (2002). The performance prism: the scorecard for measuring and managing business success, Cranfield School of Management.
- Abdul, G .K. (2012). The relationship of capital structure decisions with firm performance: a study of the engineering sector of Pakistan. *International Journal of Accounting and Financial Reporting*, 2(1), 2162-3082.
- Abdur, R. (2018). Corporate characteristics and leverage: evidence from Bangladesh, *PSU Research Review*, 2(1), 96 – 104.
- Abor, J. (2014). The effect of capital structure on profitability: an empirical analysis of listed firms in Ghana. *The Journal of Risk Finance*, 6(5): 438-445.
- Akintoye.R. (2008). Sensitivity of performance to capital structure. *European Journal of social Science*, 7(1), 36 - 44.

- Barako, D. G. (2012). Determinants of voluntary disclosures in Kenyan Companies Annual Reports. *African Journal of Business Management*, 1(5), 113-128.
- Mohd. H, Muammar K. & Ainatul U(2014). Influence Analysis of Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin (NPM), Debt To Equity Ratio (DER), and current ratio (CR), Against Corporate Profit Growth In Automotive In Indonesia Stock Exchange. *International Journal of Academic Research in Business and Social Sciences*. 12(4), 49 – 53.
- Khatoon, T. & Hossain, M. M. (2019). Capital structure and firm's financial performance: evidence from listed cement companies of Dhaka Stock Exchange of Bangladesh. *University of Bahrain Scientific Journals*, 12 (19), 23 – 28.
- Nwude, E. C. & Anyalechi, K. C. (2018). Impact of capital structure on performance of commercial banks in Nigeria, *International Journal of Economics and Financial Issues*, 8(2), 298-303.
- Udobi-Owoloja, P. I., Gbajumo-Sheriff, M.A., Umoru, B., Babatunde, S.A. & Ilimezekhe, D. (2020). Capital structure and firm's profitability: Evidence from listed consumer goods sector in Nigeria, *Journal of Accounting, Business and Finance Research*, 9 (2), 50-56
- Agbonrha-Oghoye, I. I. & Umoru, D. (2017). Capital structure and firm financial performance in Nigeria: Empirical evidence of the causal link, *The Journal Contemporary Economy* 2(4), 23 – 29.
- Chechet, I. & Olayiwola, A.B. (2014). Capital structure and profitability of Nigeria quoted firms. the agency cost theory perspective, *American International Journal of Social Science*, 3(1), 139-158.
- Dang, Y. T. H., Bui, N. T. H., & Nguyen, H. T. (2019). The impact of capital structure on firm performance: Empirical evidence from listed food and beverages companies in Vietnam. *International Journal of Economics, Commerce and Management*, 7(2), 567 – 577.
- Ezu, G. (2020). Effect of capital structure on financial performance of oil and gas companies quoted on the Nigerian stock exchange, *The International Journal of Business & Management*, 12 (19), 23 – 29.
- Hossain, A., Khan, A.Y. & Khalid, M.S. (2019). An empirical analysis of capital structure and firms financial performance in a developing country, *Global Journal of Management and Business Research*, 19(3), 8 – 16.
- Koeh, R., Kimetto, R. & Rono, P.K. (2020). The effect of capital structure on financial performance of firms in Kenya: evidence from firms listed at the Nairobi securities exchange, *Scientific Research Journal*, 8 (1), 12 – 19.
- Mukumbi, C. M., Khisa, W. E. & Shu, J. (2020). Effect of capital structure on the financial

performance of non-financial firms quoted at the Nairobi Securities exchange, *International Journal of Science and Business*, 4(4), 165-179.

- Narinder, P. S. & Mahima, B. (2019). The effect of capital structure on profitability: an empirical panel data study, *Jindal Journal of Business Research*, 23 (12), 43 – 48.
- Narsaiah, N. C. (2020). Does capital structure impact on financial performance: evidence from India, *Academy of Accounting and Financial Studies Journal*, 24 (6), 19 – 25.
- Nehu, E.A., Vintila, G. & Gherghina, S.C. (2018). Impact of capital structure in risk and firm performance: empirical evidence for the Bucharest Stock Exchange listed companies, *International Journal of Financial Studies*, 6(41), 1- 29.
- Oke, O.O. & Afolabi, B. (2011), Capital structure and industrial performance in Nigeria (1999-2007). *International Business and Management*, 2(1), 100-106.
- Oladele S. A., Omotosho O. & Adeniyi S. O., (2017). Effect of capital structure on the performance of Nigerian listed manufacturing firms, *European Journal of Business Management*, 9 (7), 22 – 32.
- Onaolapo, A.A. & Kajola, S.O. (2010). Capital structure and firm performance: evidence from Nigeria, *European Journal of Economics, Finance and Administrative Sciences*, 25 (9), 70 – 82.
- Rahman, M. A., Sarker, M. S. I., & Uddin, M. J. (2019). The impact of capital structure on the profitability of publicly traded manufacturing firms in Bangladesh. *Applied Economics and Finance*, 6(2), 1-5.
- Rosario, S., & Chavali, K. (2019). Capital structure and its impact on profitability—a study of Indian hotel industry, *International Journal of Business and Administration Research Review*, 6(1), 67-72.
- Sovaniski, T. (2020). Capital structure impact on financial performance of Kurdistan manufacturing firms, *European Journal of Business Management*, 9 (17), 12 – 18
- Uremadu, S.O. and Onyekachi, O. (2019). The impact of capital structure on corporate performance in Nigeria: A quantitative study of consumer goods sector, *Agricultural Research and Technology*, 19(5): 001 – 010.
- Warrad, L., Al-Nimer, M., & Al-Omari, R. (2016). The impact of liquidity on Jordanian banks profitability through return on assets, *Research Journal of Finance and Accounting*, 6(5), 26-29.
- Wasfi, A. A., & Haneen, H. H. (2016). The impact of capital structure on stock return; Empirical

evidence from Amman stock exchange, *International Journal of Business and Social Science*, 7(9), 183 – 196.

Yinusa, O.G., Ismail, A., Yulia, R. and Olawole, L.S. (2019). Capital structure and firm performance in Nigeria, *African Journal of Economic Review*, 3(1): 31 – 46.