

**CAPITAL STRUCTURE AND CORPORATE PERFORMANCE OF
NIGERIAN QUOTED MANUFACTURING FIRMS**

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**A PROJECT WORK SUBMITTED TO THE DEPARTMENT OF
ACCOUNTANCY, SCHOOL OF BUSINESS STUDIES,
AUCHI POLYTECHNIC, AUCHI, EDO STATE**

**IN PARTIAL FULFILMENT OF REQUIREMENTS FOR THE
AWARD OF HIGHER NATIONAL DIPLOMA (HND) IN
ACCOUNTANCY,**

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Financing decision especially capital structure decision which refers to the financial framework comprising the debt and equity maintained by a firm, is one of the important decisions managers make in any organization. The choice of capital structure adopted by

a firm is fundamentally a financial and marketing problem and it depends on the risk and return characteristics of the firm and its management (Adeoye, 2019). A measure of an organizations corporate performance can be viewed from financial and organizational perspectives. Financial performance is in terms of profit maximization, maximizing return on assets and maximizing shareholder return which is built on the company's efficiency (Tudose 2018). However, valuation of company performance using financial indicators is to be accompanied by a valuation founded on non-financial indicators (organizational perspective): productivity, returns, growth or even customer satisfaction. Good performance translates into job opportunities and if corporate organizations fail to increase performance by ensuring efficient use of capital structure decision, domestically produced goods will become less competitive (Osei, 2017).

In reality, capital structure of a firm is difficult to determine as financial managers have difficulty in determining an exact optimal capital structure to be adopted; as such, a firm has to issue various securities in a countless mixtures to come across particular combinations (optimal) that can maximize its overall value (San & Heng, 2017). Theoretically, optimal capital structure means a combination of funds which minimizes the weighted average cost of capital (WACC) thereby maximizing the value of the firm. Although, optimal capital structure is a concept that has been discussed variously in the literature, but in reality/practice, no formula or theory has been found that decisively provides optimal capital structure for a firm. The lack of consensus from theoretical and empirical points of view about what qualify as optimal capital structure had rendered it pertinent and expedient to examine the effect of the

debt/equity mix on firm's performance, primarily because the capital markets that supplies equity funds has become saturated and performing below expectations due to global economic crisis while debt capital is highly risky (Ganiyu, 2019).

The theory of capital structure is an important reference theory in enterprises financing policy. Whether or not an optimal capital structure exists is one of the most important and complex issues in corporate finance/ financial accounting reporting. How an organization is financed is of paramount importance to both the managers of firms and the providers of funds. This is because if inappropriate mix of finance is employed, the performance and survival of the business may be seriously affected. Unfortunately, most organisations face hurdles in sourcing for funds and in fact, any business organization that opens up itself to external finance is prone to risk due to the associated constraints of repayment.

Previous studies both in Europe, United States and Africa found contradictory results concerning the relationship between capital structure and firms performance. For instance, Zeitun and Tian (2017) and Onaolapo and Kajola, (2019) find a positive relationship, Luper and Kwanum (2012) found a negative relationship while Ebaid (2019) concludes that capital structure has a weak impact on the corporate performance. Thus, researchers still cannot agree on the extent of the impact (San & Heng 2017). In practice, however, the study of Shoaib, (2011) and San and Heng, (2017) finds that most firms do not have optimal capital structure because managers do not have incentive to maximize corporate performance because their compensation is generally not linked to it Taiwo and Olayinka, (2016). Currently the situation became

problematic with the crash of the stock market which led to reduction in value of equity component of a firm's capital structure while the cost of borrowing keeps increasing. This had left firms running from pillar to post in designing appropriate mix of debt and equity necessary to achieve the ever increasing and differing stakeholder's objectives.

1.2 Statement of Problem

Warokka, Herrera and Abdullah (2020) observed that the subject of optimal capital structure has been the focus of several studies. Capital structure of a firm is a blend of debt and equity employed in financing its operations. The capital structure decision is critical for the continued existence of any business organization as to the maximization of returns to stakeholders (Akintoye, 2018).

Literature revealed that several studies have been carried out to investigate the relationship that exists between capital structure and performance (Onaolapo & Kajola, 2019; Warokka et al., 2020). However, the results of these previous studies have been conflicting. While some researchers reported positive relationship between capital structure and performance (Akintoye, 2018; Dare & Sola, 2019). Others reported negative relationship (Iorpev & Kwanum, 2012). Still, some researchers reported that no relationship exists between capital structure and performance (Prahalthan & Ranjan, 2020). Thus, the relationship that exists between capital structure and corporate performance remain controversial and open to further research, and this is the issue to be addressed in this study.

1.3 Research Questions

The research work seek to address the following questions:

- i. To what extent does tangible of assets affect corporate performance of quoted manufacturing firms in Nigeria?
- ii. How does liquidity affect corporate performance of quoted manufacturing firms in Nigeria?
- iii. What is the relationship between asset growth and corporate performance of quoted manufacturing firms in Nigeria?

1.4 Objectives of the Study.

The broad objective of the study is to examine the effect of capital structure on corporate performance . However, the specific objectives are to;

- i. To examine the extent to which tangible assets affect corporate performance of quoted manufacturing firms in Nigeria.
- ii. To determine the effect of liquidity on corporate performance of quoted manufacturing firms in Nigeria.
- iii. To ascertain the relationship between asset growth and corporate performance of quoted manufacturing firms in Nigeria.

1.5 Statement of Hypothesis

The following hypotheses stated in their null form will be tested in this research work.

Hypothesis 1

- i. Tangible assets does not significantly affect corporate performance of quoted manufacturing firms in Nigeria.

Hypothesis 2

- ii. Liquidity does not significantly affect corporate performance of quoted manufacturing firms in Nigeria.

Hypothesis 3

- iii. There is no significant relationship between asset growth and corporate performance of quoted manufacturing firms in Nigeria.

1.6 Significance of the Study

The study would be of great relevance to the following parties:

Management: The study will also be great benefit to corporate financial managers who are facing the challenge of making decisions on an optimal mix of debt and equity that maximize wealth of shareholders and minimize cost.

Employees: This study will provide a knowledge that will aid the employees to have a clear understanding of how debt and equity of a company where they work can affect its profitability.

The Government: The study will be of relevance to the government, as it provides relevant data towards formulation of relevant policy with respect to firms capital structure.

Shareholders: This study will provide knowledge to shareholders on how to determine the efficiency and profitability of their organization with respect to the company capital structure.

Creditors: The study will serve as a useful guide to facilitate their decision making process in regards to their financial obligations.

Financial Expert: Financial expert will find the study helpful in their financial and advisory services to failing and distressed companies.

1.7 Scope of the Study

The study examine capital structure and corporate performance of listed manufacturing entities in the Nigerian Exchange Group. The selected firms are carefully classified into consumer goods and financial service firms, this enables us make comparisons and arrive at a more reliable conclusion. This research work covered the period of 2010 to 2020 (11 years).

1.8 Limitations of the Study

The research work was carried out in the face of various constrictions in the area of dearth of data as a result of the dynamic nature of Nigerian economy.

The study is also limited by the number of firms used. It should be noted that the Nigerian economy is one with very few consumer goods firms. A wider range of sectors and larger number of firms would have improved the result of this study.

Lastly weakness in term of generalisation of result is another constraint of the research work as the study employed data from the period of 2014-2018 which does not cover all the data as regards the subject matter under study.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Conceptual Review

The conceptual framework illustrates the expected relationship between the variables in the study. It defines the relevant objectives for the research process and maps out how they come together to draw coherent conclusions. The conceptual model of this research work are explained below:

2.1.1 Determinants of Capital Structure

Brealey and Myers (2018) defined capital structure as comprising of debt, equity or hybrid securities issued by the firm. Van Horn (1989) defined capital structure as the proportion of debt to the total capital of the firms. Pandey (2005) defined capital structure as a choice of firms between internal and external financial instruments. From the foregoing, the capital structure represent the way firms finance its asset for continuing

operation. According to Song (2019) capital structure is a mix of a company's long-term debt, specific short-term debt, common equity and preferred equity. The capital structure is how a firm finances its overall operations and growth by using different sources of funds.

Capital structure also refers to the blend of debt and equity a company uses to fund and finance its operations. In many cases, discussions of capital structure include references to debt-to-equity ratios, which are one of several ratios that measure the relative weight of different types of capital (2018). Different types of capital impose different types of risks on a company. For this reason, capital structure affects the value of a company, and therefore much analysis goes into determining what a company's optimal capital structure is. The Modigliani and Miller propositions (created by financial theorists Franco Modigliani and Merton Miller) address this question.

In a company's capital structure, equity consists of a company's common and preferred stock plus retained earnings, which are summed up in the shareholders' equity account on a balance sheet. This invested capital and debt, generally of the long-term variety, comprises a company's capitalization and acts as a permanent type of funding to support a company's growth and related assets (Hills, 2019).

In general, analysts use three different ratios to assess the financial strength of a company's capitalization structure. The first two, the debt and debt/equity ratio are popular measurements; however, it's the capitalization ratio that delivers the key insights to evaluating a company's capital position.

The debt ratio compares total liabilities to total assets. Obviously, more of the former means less equity and, therefore, indicates a more leveraged position. The problem with this measurement is that it is too broad in scope, which, as a consequence, gives equal weight to operational and debt liabilities. The same criticism can be applied to the debt/equity ratio, which compares total liabilities to total shareholders' equity. Current and non-current operational liabilities, particularly the latter, represent obligations that will be with the company forever. Also, unlike debt, there are no fixed payments of principal or interest attached to operational liabilities (Kadiri, 2018).

Song (2015) sees capital structure as the mix of different types of securities (long-term debt, common stock, and preferred stock) issued by a company to finance its assets. A company is said to be unleveraged as long as it has no debt, while a firm with debt in its capital structure is said to be leveraged. There exist two major leverage terms: operational leverage and financial leverage. While operational leverage is related to a company's fixed operating costs, financial leverage is related to fixed debt costs. Loosely speaking, operating leverage increases the business (or the operating) risk, while financial leverage increases the financial risk.

The way and manner firms mix its asset and its influence on firms' value has become a subject of debate since 1960s. The Modigliani and Miller model started by debating that the market value of any firm is independent of its capital structure, based on the premise that capital structure does not affect a firm's cash flow (Kyereboah, 2017). When interpreted, the arguments shows that the capital structure is not expected to vary from company to company. Barclay and Smith (2020), following on their preceding 2018 and

2019 papers, justify this “invariance” argument by trying conditions could be deliberately artificial and could be excluding information costs, personal or corporate taxes, contracting or transaction costs, and a fixed investment policy.

In 1963 Modigliani and Miller revised their initial stance that the financing decisions of firms do not affect their value, suggesting that firms with higher profits should use more debt, thus substituting debt for equity to take advantage of interest induced tax shields. Kyereboah-Coleman (2007) Myers (1984) as advancing the static trade-off theory. The theory explains how a firm decides on the debt-to-equity ratio on the assumption that some optimal capital structure exist, enabling the firm to operate efficiently and ensuring external claims on cash flow are reduced. Miller (1988) contend this is to imply that firms are encouraged to increase their debt levels. For this reason, Voulgaris . (2004) argue that a trade-off between tax gains and increased bankruptcy costs increases a firm’s cost of capital. In highlighting limitations to optimal level of firm debt, voulgaris .consider the arguments of the stiglitz (1974) and (1998) paper; that bankruptcy costs which are associated with increasing levels of debt.

Since the evolution of the trade-off theory, debate has raged with researchers adapting the assumptions to more realistic expectations and analysis (Kyereboah-Coleman,2017). One amongst some identified short comings, is that in reality high profitable companies tend to have less debt than less profitable companies as the former utilize the profits for financing.

Capital structure of banks is determined by various internal and external factors. The macro variables of the economy of a country like interest rate, tax policy of a

government, inflation rate, capital market condition, are the major external factors that affect the capital structure of a firm. The characteristics of an individual firm, which are termed here as micro factors (internal), also affect the capital structure of enterprises (Adamu, 2019).

Bankruptcy costs are the costs incurred when the perceived probability that the firm will default on financing is greater than zero. The potential costs of bankruptcy may be both direct and indirect. Examples of direct bankruptcy costs are the legal and administrative costs in the bankruptcy process. Haugen and Senbet (2018) argue that bankruptcy costs must be trivial or nonexistent if one assumes that capital market prices are competitively determined by rational investors. Examples of indirect bankruptcy costs are the loss in profits incurred by the firms as a result of the unwillingness of stakeholders to do business with them. Customer dependency on a firm's goods and services and the high probability of bankruptcy affect the solvency of firms (Titman, 2019). If a business is perceived to be close to bankruptcy, customers may be less willing to buy its goods and services because of the risk that the firm may not be able to meet its warranty obligations. Also, employees might be less inclined to work for the business or suppliers less likely to extend trade credit.

These behaviors by the stakeholders effectively reduce the value of the firm. Therefore, firms that have high distress cost would have incentives to decrease outside financing so as to lower these costs. Warner (1977) maintains that such bankruptcy costs increase with debt, thus reducing the value of the firm. According to the Modigliani and Miller (1963), it is optimal for a firm to be financed by debt in order to benefit from the

tax deductibility of debt. The value of the firm can be increased by the use of debt since interest payments can be deducted from taxable corporate income. But increase in debt results in an increased probability of bankruptcy. Hence, the optimal capital structure represents a level of leverage that balances bankruptcy costs and benefits of debt finance. The greater the probability of bankruptcy a firm face as the result of increases in the cost of debt, the less debt they use in the issuance of new capital (Pettit and Singer, 1985).

2.1.2 Attributes of Appropriate Capital Structure

The financial manager of any business firm is expected to determine the most efficient and suitable mix of capital structure for optimization, this could be achieved by focusing on the interest of the shareholder and the financial requirements of the company. As stated by Pandey (2005); an appropriate capital structure should have the following features:

Return: the capital structure of the company should be most advantageous. Subject to other considerations, it should generate maximum returns to the shareholders without additional cost.

Risk: the use of excessive debt threatens the solvency or liquidity of the company. To the point debt does not add significant risk it should be used as source of capital; or its use should be avoided.

Flexibility: the capital structure should be flexible. It should be possible for a company to adapt its capital structure with a minimum cost and delay if warranted by a changed situation. It should also be possible for the company to provide funds whenever needed to finance its profitable activities (projects).

Capacity: the capital structure should be determined within the debt capacity of the company, and the capacity should not be exceeded. The debt capacity of a company depends on its ability to generate future cash flows.

Control: the capital structure should involve minimum risk of loss to control of the company. The owners of closely held companies are particularly concerned about dilution of control.

2.1.3 Liquidity

Liquidity is a ratio between total current assets of the firm and the total current liabilities obligation within a period of one year or normal operating cycle of the firm whichever is greater. It is the ability of an entity to meet its short term financial obligation as at when due. Liquidity is also another performance indicator especially in banking industry as a bank survives for some time without making profit but certainly it cannot survive without liquidity (Ong & Yeung, 2018).

Liquidity measures also the spontaneous financial resources available to conduct normal business operations. The physical resources as measured by the assets size is one of the tangible resources the firm can use to gain competitive advantage, whereas business experience of the firm gives the firm organizational capabilities that it can use to gain a competitive advantage over its competitors thus being able to earn an above average financial performance.

Liquidity has been argued over the years to a brain box for survival of a business, because businesses that are facing problem of liquidity may be heading towards crises and as such a reasonable part of asset is expected to be held in liquid form in order to meet day to day

activities of the business. Any organization that is liquid may be willing to disclose that in their financial reports in order to attract their creditors, increase their ability of raising funds externally to finance future projects. Also it is an indication to regulators, investors, potential investors and other stakeholders that the business has the ability of existing for a foreseeable future without any financial hitches. Such firms will be willing to make public through disclosure their level of liquidity (Owie, 2020).

2.1.4 Asset Growth

Assets are the economic resources of a company expected to benefit the firm's future operations (Ahmed, 2017). Certain kinds of assets including cash and accounts receivable are monetary items. Others like inventory, land, buildings and equipment are nonmonetary, physical items. Still other assets like patents, trademarks, and copyrights are non-physical. The assets of a business enterprise are an integral part of business operations (Ogbu, 2016).

Assets work in conjunction with other components of liabilities and equity in the overall business operations. Stock returns are a high priority measure of performance. However, prior studies show the market is slow to incorporate publicly available information, contrasting the efficient market hypotheses. Sales and earnings growth are also important measures of performance. Growth provides additional capabilities, opportunities, revenue and profit. Growth can be organic or from mergers and acquisitions (Kadiri, 2017)

The purpose of this study is to highlight differences between companies with positive versus negative asset growth. Using firm performance financial ratios as predictors it is shown that assets growth can be predicted at an 85.7% rate in large companies using

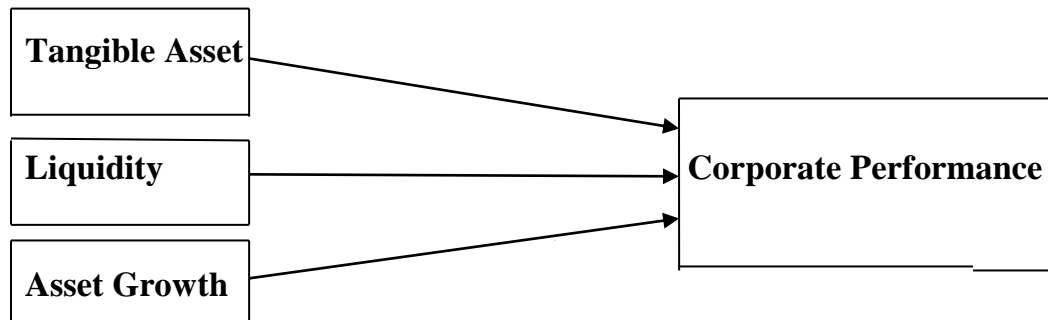
discriminant analysis. Logic specifications produce a lower predictability. The prediction rates here are high compared to other prediction studies such as bankruptcy, corporate acquisitions, qualified audit reports and going-concern opinions. The contribution of this study is two-fold. First, it provides empirical evidence with a test of two prediction models in a new area of research. Second it adds a firm based analysis in a research area which has previously been examined primarily at the macroeconomic level.

2.1.5 Corporate Performance

Performance is the ability of a business to earn a profit and make progress. Performance is represented by return on assets (ROA), revenue growth. ROA assesses the efficiency of management to use assets in generating revenue. Revenue growth is the percentage increase in gross income or gross revenue overtime. Companies that are better at risk management have higher levels of relative profitability because efficient risk management systems help in identifying and managing such risks in their early stage which in turn help in avoiding such losses and increasing companies' performance and profitability. In addition, it could be assumed that, profitable companies have more resources available to invest in internal control and risk management systems. However, available evidence seems to suggest that firm performance has no significant impact on risk disclosure. This could mean that companies with high profitability may not bother to communicate risk information and tend to rely on their performance as major derive of their market value (Ozolua, 2019).

It also refers to the measurement of the results of a firm's strategies, policies and operations in monetary terms. These results are reflected in the firm's return on assets and return on investments.

2.1.6 Conceptual Framework



Source: Researcher Conceptualization (2022)

2.2 Theoretical Framework

2.2.1 Pecking order theory

The pecking order theory based on assertion that firms use debt only when retained earnings are insufficient and raise external equity capital only as a last resort. More recent models of capital structure choice include 'windows of opportunity' and 'managerial optimism' Heaton, (2002). Baker and Wurgler (2018) suggest that managers could minimize the cost of capital by timing the market (issuing equity when share prices increase) implying that market conditions influence the pecking order. However, Hovakimian (2016) shows that the timing of equity issuance does not have any significant long-lasting impact on capital structure. In a quest for the factors that managers consider in deciding the financing mix of a firm, many studies have examined the role of several firm-specific factors. In a review article, Harris and Raviv (1991)

resort the leverage is positively related to non-debt tax shields, firm size, asset tangibility, and investment opportunities, while it is inversely related to bankruptcy risk, research and development expenditure, advertising expenditure, and firm's uniqueness.

2.2.2 Trade-off theory

Myers (1984) and Myers and Majluf (1984) suggest that capital structure choice is driven by the magnitude of information asymmetry present between the firm insiders and the outside investors. The more severe the information asymmetry, the more risk the outside investors are facing and hence the more discount they demand on the price of issued securities. Consequently, firms will prefer financing through internal funds and if they do need to raise outside capital, they will firstly issue risk-free debt then followed by low – risk debt. Equity is only issued as a last resort. As stated in Myers (1984), the static trade-off theory proposes that the optimal debt ratio is set by balancing the trade-off between the benefit and cost of debt. The benefit is debt arises from the tax deductibility of interest payments on debt and the cost of debt comes in the form of higher probability of bankruptcy and the loss suffered in the event of bankruptcy.

2.2.3 Agency theory

Jensen and Meckling (1976) predicted capital structure choice based on the existence of agency costs, i.e. costs due to conflicts of interest. According to them, these are essentially two sources of conflicts. Conflicts between shareholders and managers arise sine managers have an incentive to consume on perquisites while putting less effort on maximizing profit for the firm. This is because managers bear the entire costs of pursuing

profit maximization while they do not receive the entire gain. By increasing the level of debt, this agency cost of managerial discretion can be mitigated.

However, increasing debt level may give rise to another type of agency cost, namely conflicts between shareholders and debt-holders. The conflicts arise due to shareholders incentive to invest in sub optimal projects. If an investment earns a return well above the face value of debt, shareholders would receive most of the gain, but if the investment fails debt-holders will bear all the cost because the maximum amount that shareholders can lose is the amount of their investments (limited liability). Consequently, shareholders will have preference for investing in highly risky projects even though they are value-decreasing. This agency cost of debt financing is referred to as “asset substitution effect”. Accordingly, the optimal capital structure choice involves balancing the trade-off between the benefit of debt arising from mitigating the agency cost of managerial discretion against the agency cost of debt arising from “asset substitution effect”.

2.2.4 Bankruptcy cost theory

Theories of capital structure pay little or no attention to the existence of bankruptcy costs. In a perfect capital market, it is assumed that all company assets can be sold on their economic value without acquiring the costs of liquidation. Nevertheless, in actual situations, such as liquidation costs, legal fees and administration are significant (Warner, 1977; Haugen and Senbet, 1978, Andrade and Kaplan, 1998). Moreover, assets may be sold at distress prices below their economic value. Thus, its net realisable value is less than the economic value. The lenders will bear the cost of ex post bankruptcy, but they will In the end, the shareholders bear the problem of ex ante bankruptcy costs and lower

valuation due from the company. A company with leverage has a larger probability of bankruptcy than firms with no leverage. Hence, the cost of bankruptcy for firms with high leverage is higher. However, the cost of bankruptcy is not a linear function of leverage. When a company employs low levels of leverage in capital structure, bankruptcy risk is not considered. Thus, there is no influence of bankruptcy cost on corporate valuation, until the threshold is reached. Conversely, after a threshold level of leverage, bankruptcy becomes an existent threat. The possibility of bankruptcy significantly increases with further application of leverage. Bankruptcy costs rose at an increased rate beyond the stage of threshold.

2.3 Empirical Review

Shan and Khan, (2017). The study looked at the determinants of capital structure of KSE listed non-financial firms for the period 1994-2016. Pooled regression analysis was applied with the assumption that there were no industry or time effects. However, using fixed effect dummy variable regression, the coefficients for a number of industries were significant showing there were significant industry effects hence we accepted the later model for our analysis. Six explanatory variables were used to measure their effect on leverage ratio. Three of the variables were significantly related to leverage ratio whereas the remaining three variables were not statistically significant in having relationship with the debt ratio. The results approve the prediction of trade-off theory in case of tangibility variable whereas the earning volatility, and depreciation variables fail to confirm to trade-off theory. The growth variable confirms the agency theory hypothesis whereas

profitability approves the predictions of pecking order theory. Size (variable neither confirms to the prediction of trade-off theory nor to asymmetry of information theory.

Khrawish and khaiwesh (2018) examined the capital structure of listed industrial companies on Amman Stock Exchange (ASE) over the period (2001-2005). The findings of this study contribute towards a better understanding of financing behaviour in Jordanian industrial companies. Hypotheses, based on comparing the relationships between Leverage ratio , Long-term debts/total debts and five explanatory variables that represent size, tangibility, profitability, long-term debt and short-term debt. To test those relationships regression analysis for Leverage ratioand debts/total debts model was used to explain determinants of the capital structure of Jordanian industrial companies on the time period (2001 - 2005). There was a significant positive relationship between leverage ratio and size , Tangibility , long-term debt and short-term debt and there was a significant negative relationship between leverage ratio and profitability of the firm. In other words, the results of this study showed that a significant positive relationship between and s debts/total debts size , Tangibility and long-term debt) and there was a negative relationship between and debts/total debts short-term debt of the firm. Also, the results showed that Total assets, Tangibility, Long-term debt, had a positive correlation with. While, s debts/total debts short-term debt had a negative correlation with debts/total debts

Bassey, Arene and Akpaeti (2019) examined the determinants of capital structure decision and compared the capital structure of quoted and unquoted agro-based firms in Nigeria. Data collected through a multi-stage random sampling from the financial

statements of 28 quoted and 60 unquoted agro-based firms for the period 2005-2010 were analyzed using descriptive statistics, Z-test and Ordinary Least Square (OLS) regression. The result revealed significant differences in capital structure (long term debt and total debt use) between quoted and unquoted agro-based firms. Short-term debts constituted a higher proportion of total debts of both sampled groups. The regression result showed that firm size, asset structure and growth coefficients had significant positive relationships with both long and short term debt finance for both listed and unlisted agro-based firms respectively. Result further showed that age of firms, educational status of CEO, export status of firms, and gender of firm owners were positive and significantly related to long term debt for both listed and unlisted firms. Also, highly profitable firms depended on internally generated revenue, thereby lending credence to the pecking order theory. Therefore, the study showed that pecking order theory dominated the financing behavior of agro-based firms in Nigeria while the agency cost argument was only relevant for listed agro-based firms. Hence, policies that would enhance the acquisition of tangible assets, encourage exportation, ensure appropriate record keeping and encourage the use of more long term finance in place of short-term finance should be pursued.

Abiri and Jonnes (2016) examined whether there is a significant relationship between liquidity and operating performance during the global financial crisis of 2007–2009, using information corresponding to 170,013 firms in Thailand, most of which were private. The estimation of the panel regressions was carried out using fixed and random effects models. The results indicated that liquidity has a negative effect on performance across firm-size subsamples; the year-by-year cross-sectional regression results revealed

that the effect of liquidity on performance is positive for small firms but negative for large firms. Their findings show that about 75% of Thai firms in their sample appear to have managed to get through the global financial crisis.

Kartikasari and Merianti (2016) analysed the effect of liquidity and the size of a company on its profitability using 100 qualified manufacturing companies listed on the Indonesia Stock Exchange in the period 2009-2014. To that end, they used panel data regression analysis, with the most suitable panel data regression model being the fixed effects model. Liquidity was measured by the debt-to-equity ratio, while firm size was measured by total assets and total sales, and profitability by ROA. The study revealed that the debt ratio has a significant positive effect on profitability while total assets has a significant negative impact. Total sales, however, does not have a statistically significant effect on the profitability of the companies.

Firm-specific studies have concentrated on liquidity and profitability (Al-Shubiri, 2010). Profitability is the principal goal of every firm as well as all other business organisations. Without profitability, a firm will not survive in the long run (Al-Shubiri, 2010).

Sangosanya (2020) examined the dynamics of manufacturing firms' growth in Nigeria using panel data analysis in a bid to evaluate liquidity as a factors that influence firm performance, including adequate finance, a business-friendly environment, effective management and operation structure, and growth-oriented government policies and regulations. The panel regression model was based on 45 manufacturing firms listed on the Nigerian Stock Exchange (NSE) from 1989 to 2008. The estimated dynamic panel

model revealed that firms' financing mix, utilization of assets to generate more sales, abundance of reserve funds and government intervention as indicated by Tobin's Q, operating efficiency, capital reserve and government policies are significant determinants of manufacturing firms' growth dynamics in Nigeria.

Profitability measures include the rate of return on equity (ROE), rate of return on capital (ROC) and rate of return on assets (ROA). In most studies, emphasis is placed on measuring profitability in terms of ROC and ROA or ROA and ROE (Atemnkeng & Joseph, 2006). Smirlock (1985) observed that the use of ROA has provided strongest evidence on the relationship between firm-specific variables and profitability much more than ROE in view of the fact that using the former provides opportunity of benchmarking a firm's output against its total assets. Keeton and Matsunaga (1985) asserted that ROA is especially useful in measuring changes in firm performance over time since firms' income and expense components are more closely related to assets. On the whole, ROA is considered the most important measure of firm profitability. It is defined as the firms' before tax profit over total assets. The choice of ROA rather than ROE as proxy for bank profitability is because, as Flamini, McDonald & Schumacher (2009) put it, an analysis of ROE disregards financial leverage and the risks associated with it. Though, ROA, on its part, is criticised of being biased due to off-balance-sheet activities, it is still believed that such activities are negligible in most developing nations relative to the risk associated with liquidity.

Ginika and Owie (2013) used panel data analysis to estimate the effect of liquidity on the performance of firms belonging to the Nigerian manufacturing sector for the period 2005-

2012. ROA was used as a proxy for profitability while size was proxied by the log of total assets and the log of turnover. Inventory, liquidity was used as control variables. The results of the study showed that size, in terms of total assets and in terms of total sales, has a positive significant effect on the profitability of Nigerian manufacturing companies. As for the control variables, inventory has a negative relationship with profitability, while in the case of liquidity the relationship is negative.

Kalamari and Budinwa (2018) evaluates the effect of consistent asset growth profitability of some selected deposit money banks in Nigeria their objective was to determine the impact of steady and consistent asset growth on bank profitability of some selected DMBs in Nigeria. They Employed ordinary least square method of data analysis (OLS). The result from Panel Least square (PLS) estimate found that asset growth has a significant impact on the profitability of Nigerian banks and they recommend that drastic measure should be put in place to ensure steady asset growth .

Poudel (2016) studied asset growth and other factors affecting firm performance in Nepal for the period of 2001-2015 and used a linear regression analysis technique. The study revealed a significant inverse relationship between asset growth firm profitability measured by ROA. Additionally, there are other internal variables such as capital adequacy, firm size and age that could affect the firm profitability (ROA & ROE).

Chinedu and Wahab (2019) studied the impact of asset growth on banks survival in Nigeria and the result showed that asset growth had a positive association with survival of the banks. The study adopted the chi square statistical tool for data analysis using primary data.

Olalade, Jumal and Tiki (2017) examine the impact of asset growth on firm performance in term of profitability. The research hypothesis was tested and analyzed in relation to asset growth and its significant effect on profitability. They employed the Ordinary Least Square (OLM) method of data analysis. It was also the aim of this research to evaluate how effective it is for firm to manage its asset effectively to enhance profitability. Data for the study was an obtained through the administering structured questionnaires which were answered by respondents. Correlation coefficient was used to decide whether or not asset growth has an impact on profitability.

More comprehensively, Kolapo (2018) used panel data analysis in studying the effect of asset growth on banks' survival using ROA as a measure for performance. The result was that an increase in asset growth by banks will improve their chances of survival and improve profitability (ROA).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

The research design for this study was panel data (cross sectional/longitudinal design) with time series properties. This was used to reach out to different firms, thus capturing the heterogeneity among firms. To achieve the objectives of this study, the annual report for the period 2010 to 2020 were analyzed. The study adopted the use of Panel Least Square regression for the listed sampled firms in the estimation of the regression equation under consideration.

3.2 Population of the Study

The study population consists of listed Manufacturing firms in the Nigerian Exchange Group during the period 2010 to 2020, However, the researcher decided to use the Manufacturing sector due to data availability. This led to a population of 60 firms.

3.3 Sample Size

Samples are useful because they allow the researcher to examine the characteristics of the population.

The Taro Yamani statistical formula was adopted for this research work. The formula is thus:

$$n = \frac{N}{1 + N(e)^2}$$

Where N = population of study

n = sample size

e = level of significance or margin of error

Therefore,

N = 60

e = 0.05

n = ?

Note: The choice of 0.05 level of significance is purely an exclusive decision of the researcher.

$$n = \frac{60}{1 + 60 (0.05)^2}$$

$$n = \frac{60}{1 + 60 \times 0.0025} = \frac{60}{1 + 0.15} = \frac{60}{1.15} = 52.17$$

n = 52 sample size.

3.4 Sampling Techniques

The simple random sampling method was used in this study, the obvious reason for adopting this sampling technique is to ensure that every member of the population has a known and equal chance of selection.

3.5 Method of Data Collection

The researcher's tool that was adopted in obtaining relevant data for this study was the annual reports of the firms under study for the period 2010 to 2020.

3.6 Method of Data Analysis

Data obtained from secondary source were analyzed using E-View Computer Software. The study used regression analysis to investigate the impact of independent variables on dependent variable. A multiple linear regression model was used to establish the significance of the model. The results obtained from the model are presented in tables to aid and ease the analysis.

3.7 Model Specification

The regression model used is as shown below:

$$CP = \beta_0 + \beta_1 TA_{ij} + \beta_2 LIQ_{ij} + \beta_3 ASGRT_{ij} + \epsilon$$

Where:

CP = Corporate performance (This was proxy by return on asset ROA)

TAS = Tangible Asset

LIQ = Liquidity

ASGRT = Asset Growth

β_0 = Intercept

$\beta_1 - \beta_3$ = Parameters

ϵ = Error term

i = ith year

j = jth year firm

The level of significance adopted in testing the stated hypothesis of this study is 5%. This level is usually considered adequate for studies in management and other behavioral sciences.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

4.1 Presentation and Analysis of Data

Table 4.1 below presents the summary of the descriptive statistics for the dependent and independent variables for 312 observations. For dependent variable, it was observed that return on assets (A measure for corporate performance) has a mean value of 0.156506 and a standard deviation of 0.217288 among all variables. The maximum in corporate performance is 1.246384 while the minimum is -0.281726.

For the independent variables, the Tangible Asset , liquidity and Asset growth are measured by the return on assets of the firms. Overall Tangible Asset has a mean value of 31.78421 and a standard deviation of 2.823945. Liquidity has a mean value of 1.562364 and a standard deviation of 1.385516 while Asset growth has a mean value of 0.651965 and a standard deviation of 0.692562.

Table 4.1 Descriptive Statistics

	ROA	TAS	LIQ	ASGRT
Mean	0.156506	31.78421	1.562364	0.651965
Median	0.094510	32.09804	1.179320	0.585460
Maximum	1.246384	35.35181	13.73180	8.060153
Minimum	-0.281726	19.91139	0.058969	0.034195
Std. Dev.	0.217288	2.823945	1.385516	0.692562
Skewness	2.723434	-1.748766	4.481758	8.468091
Kurtosis	11.24116	6.477015	31.02702	82.63120
Jarque-Bera	1295.023	313.1505	11147.93	85356.33
Probability	0.000000	0.000000	0.000000	0.000000
Sum	48.36034	9821.320	482.7704	201.4573
Sum Sq. Dev.	14.54193	2456.197	591.2535	147.7300
Observations	312	312	312	312

Source: Researcher's Computation Using E-View (2022)

Table 4.2 Correlation Matrix

Correlation	ROA	TAS	LIQ	ASGRT
ROA	1.000000			
TAS	0.139082	1.000000		
LIQ	0.265487	0.085659	1.000000	
ASGRT	0.012267	0.032158	-0.079892	1.000000

Source: Researcher's Computation Using E-View, 2022

Table 4.2 shows that the measure of ROA has a positive mixed correlations with the various explanatory variables used in the study. The explanatory variable of Tangible Asset , Liquidity, and Asset growth are positive. The coefficient of ROA with other explanatory variables are relatively close except for Asset growth with a coefficient of 0.012267. The table shows that no two of the explanatory variables are perfectly correlated or nearly so. Thus, the problem of multicollinearity is absent in this model.

Regression Results

	Expected sign	Fixed Effect	Random Effect
C		2.2822 (5.7102) [0.0000]	0.6496 (2.7199) [0.0069]
TAS	+	-0.0671 (-5.3526) [0.0000]	-0.0161 (-2.1533) [0.0321]
LIQ	+	0.0097 (1.9425) [0.0532]	0.0108 (2.1945) [0.0290]
ASGRT	+	-0.0106 (-1.6910) [0.2467]	-0.0013 (-0.1424) [0.8869]
R-Squared		0.8477	0.0260
Adj-R-Squared		0.8153	0.0164
F-Statistics		26.1715 (0.000)	2.7145 (0.0450)
Durbin-Watson Stat		2.1829	1.7068
Hausman Test (Chi-Sq)		-	33.0323 (0.0000)
N(n) Unbalanced Observations		312	312

Source: Computed from the Data in Table 4.1

Note: bold prints are regression coefficients () are t-statistics while bracket [] are p-value

In testing for the relationship between the dependent and independent variables in the Return on Asset (ROA) – corporate performance model, the two widely used panel data regression estimation techniques (fixed effect and random effect) were adopted.

The results revealed differences in the magnitudes of the coefficients, signs and number of insignificant variables. The estimation of the fixed effect panel regression was based on the assumption of no correlation between the error term and explanatory variables, while that of the random effect, considers that the error term and explanatory variables are correlated. In selecting from the two panel regression estimation results, the Hausman test was conducted and the test is based on the hypothesis that if the p-value is less than

0.05, the random effect model is preferred to fixed effect model. A look at the p-value of the Hausman test (0.0000) implies that the researcher should accept the hypothesis at 5% (0.05) level of significance. This implies that the researcher should adopt the random effect panel regression results in drawing our conclusion and recommendations.

4.2 Hypothesis Testing

Test Statistic

The statistical tool used in testing the stated hypothesis is the regression test procedure which uses the individual significance test (t-Test) and the overall significance test (F-Test). The goodness of fit of the model is tested using the coefficient of determination. The estimation of these statistics is done using the E-View computer software.

Significance Level

The level of significance adopted in testing the stated hypothesis of this study is 5%. This level is usually considered adequate for studies in management and other behavioral sciences.

Decision Rule

The critical p-value used in these tests is 0.05. thus, the researcher accepts a given alternative hypothesis as being accepted if calculated p-value is less than or equal to 0.05, otherwise the researcher accepts the null hypothesis that there is no significant effect.

Hypothesis 1

Ho: Tangible assets does not significantly affect corporate performance of quoted manufacturing firms in Nigeria.

Computation

The test statistic is computed by E-View software and the results are as shown in Table 4.3.

Table 4.3 Regression Results on Tangible Asset and Corporate Performance

Variable	Coefficient	t-test statistic	p-value
TAS	-0.016054	-2.153333	0.0321

Source: Extracted from Table showing Regression Results (E-View Computations, 2022)

Decision

With a coefficient of -0.016054 the results indicate that Tangible Asset negatively has impacts on corporate performance, while the probability value of 0.0321 indicates that the negative impact is not significant. This leads to the acceptance of the alternative hypothesis, thus rejecting of the null hypothesis. The researcher accepts that tangible assets significantly affect corporate performance of quoted manufacturing firms in Nigeria.

Hypothesis II

Ho: Liquidity does not significantly affect corporate performance of quoted manufacturing firms in Nigeria.

Computations

The test statistic is computed by E-View software and the results are as shown in Table 4.4.

Table 4.4 Regression Results on Liquidity and Corporate Performance

Variable	Coefficient	t-test statistic	p-value
LIQ	0.010847	2.194480	0.0290

Source: Extracted from Table showing Regression Results (E-View Computations, 2022)

Decision

With a coefficient of 0.010847 the results indicate that liquidity positively impacts corporate performance, while the probability value of 0.0290 indicates that the positive impact is not significant. This leads to the acceptance of the alternative hypothesis, thus rejecting the null hypothesis that liquidity does not significantly affect corporate performance of quoted manufacturing firms in Nigeria.

Hypothesis III

Ho: There is no significant relationship between asset growth and corporate performance of quoted manufacturing firms in Nigeria.

Computations

The test statistic is computed by E-View software and the results are as shown in Table 4.5.

Table 4.5: Regression Results on Asset growth and Corporate Performance

Variable	Coefficient	t-test statistic	p-value
ASGRT	-0.001269	-0.142371	0.8869

Source: Extracted from Table showing Regression Results (E-View Computations, 2022).

Decision

With a coefficient of -0.001269 the results indicate that Asset growth negatively has impacts on corporate performance, while the probability value of 0.8869 indicates that the negative impact is not significant. This leads to the acceptance of the null hypothesis, thus rejecting of the alternative hypothesis. The researcher accepts that there is no significant relationship between asset growth and corporate performance of quoted manufacturing firms in Nigeria.

4.3 Discussion of Findings

The study used fifty two (52) firms over a period of (11) years, from 2010-2020. The study adopted the panel least square regression analysis and adopted unbalanced panel data regression estimation technique. The explanatory variables used in the model employed are Tangible Asset (TAS), liquidity (LIQ), and Asset growth (ASGRT).

All the variables are significantly normally distributed at 5% level of significance. The correlation matrix indicates the explanatory variables have mixed relationships with dependent variable (firm performance). The results also indicate the absence of multicollinearity.

Firm performance variable, based on the coefficient of 0.649598 and a p-value of 0.0069 was found to be significantly and positively related with firm attribute variables at a 5% level of significance.

Tangible Asset (TAS) variable: With a coefficient of -0.016054 the results indicate that Tangible Asset negatively has impacts on corporate performance, while the probability value of 0.0321 indicates that the negative impact is not significant. This leads to the acceptance of the alternative hypothesis, thus rejecting of the null hypothesis. The researcher accepts that tangible assets significantly affect corporate performance of quoted manufacturing firms in Nigeria

Liquidity (LIQ) variable: With a coefficient of 0.010847 the results indicate that liquidity positively impacts corporate performance, while the probability value of 0.0290

indicates that the positive impact is not significant. This leads to the acceptance of the alternative hypothesis, thus rejecting the null hypothesis that liquidity does not significantly affect corporate performance of quoted manufacturing firms in Nigeria.

Asset Growth Variable: with a coefficient of -0.001269 the results indicate that Asset growth negatively has impacts on corporate performance, while the probability value of 0.8869 indicates that the negative impact is not significant. This leads to the acceptance of the null hypothesis, thus rejecting of the alternative hypothesis. The researcher accepts that there is no significant relationship between asset growth and corporate performance of quoted manufacturing firms in Nigeria.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

Having reviewed this study, the following were revealed;

- i.** Tangible assets significantly affect corporate performance of quoted manufacturing firms in Nigeria.
- ii.** Liquidity significantly affect corporate performance of quoted manufacturing firms in Nigeria.
- iii.** There is no significant relationship between asset growth and corporate performance of quoted manufacturing firms in Nigeria.

5.2 Conclusion

The findings showed the correlations between the independent variables considered in the regressions: Tangible Asset , liquidity and asset growth, as independent variables in the model and ROA as a measure of corporate performance of manufacturing, construction and oil and gas companies in Nigeria. The significance of the coefficients was calculated at the level of 5%. The study findings indicate that Tangible Asset has a significant relationship with corporate performance, and that such relationship is negative, liquidity insignificantly affects corporate performance, and that such effect is positive, and asset growth has no significant relationship with corporate performance, and that such relationship is negative. This implies that the independent variables, Tangible Asset , liquidity and asset growth cannot be relied upon as a factor for corporate performance.

53 Recommendations

In line with the findings of this study the following recommendations were put forward;

- i. The study recommends a high consideration of increasing the company assets. This is because the size of the company is an important factor as it influences its competitive power. Small companies have less power than large ones; hence they may find it difficult to compete with the large firms particularly in highly competitive markets.
- ii. The study further recommends that regulatory authority should consider introducing cash reserve requirement for manufacturing companies so as to put in place measures that oversee the performance of the companies in times of unexpected eventualities. This will increase the financial performance of these companies as they will have enough reserves.
- iii. It is recommended that highly qualified employees should be in the top management to manage the asset of the firm as this will in turn would increase the firms performance since asset growth has no significant relationship with firm financial performance.

5.4 Contribution to knowledge

The study has contributed to knowledge in the following ways:

The study has contributed to the entire body of knowledge: In Nigeria context it empirically examined capital structure and corporate performance, revealing that there is a significant relationship between capital structure and corporate performance in Nigeria.

The study added ominously to existing knowledge by offering a novel study proof that capital structure has a strong influence on corporate performance in Nigeria quoted firms

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Appendix

Descriptive Statistics

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Sum	48.36034	9821.320	482.7704	201.4573

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Source: Researcher's Computation Using E-View, 2022

Regression Results

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N(n) Unbalanced Observations		312	312

Source: Computed from the Data in Table 4.1