

**DIVIDEND POLICY AND FINANCIAL PERFORMANCE OF DEPOSIT MONEY  
BANKS IN NIGERIA**

**BY**

**Elizabeth Oghogho OBASUYI**

**MGS1606419**

**DEPARTMENT OF BANKING AND FINANCE  
FACULTY OF MANAGEMENT SCIENCES  
UNIVERSITY OF BENIN  
BENIN CITY**

**DECEMBER, 2022**

**DIVIDEND POLICY AND FINANCIAL PERFORMANCE OF DEPOSIT MONEY  
BANKS IN NIGERIA**

**BY**

**Elizabeth Oghogho OBASUYI  
MGS1606419**

**A RESEARCH PROJECT WRITTEN AND SUBMITTED TO THE  
DEPARTMENT OF BANKING AND FINANCE, FACULTY OF MANAGEMENT  
SCIENCES, UNIVERSITY OF BENIN IN PARTIAL FULFILMENT OF THE  
REQUIREMENTS FOR DEGREE OF BACHELOR OF SCIENCE IN BANKING  
AND FINANCE OF THE UNIVERSITY OF BENIN, BENIN CITY**

**DECEMBER, 2022**

## **DECLARATION**

I declare that:

This project work is based on a study undertaken by me in the Department of Banking and Finance, University of Benin under the supervision of Dr. (Mr.) Momoh. This work has not been previously submitted for award of a degree elsewhere.

All ideas and views are product of my personal research effort and all references to works of others have been duly acknowledged.

---

**Elizabeth Oghogho OBASUYI**

**Date:** \_\_\_\_\_

## CERTIFICATION

This is to certify that this research work has been submitted by **Elizabeth Oghogho OBASUYI** with the Matriculation Number **MGS1606419** to the Department of Banking and Finance, Faculty of Management Sciences, University of Benin, Benin City under the full supervision of **Dr. (Mr.) Momoh** and in accordance with the requirement of the Department of Banking and Finance of the University of Benin, Benin City for the award of Bachelor of Science Degree in Banking and Finance.

---

**Dr. (Mr.) Momoh**  
*Project Supervisor*

---

**Date**

---

**Dr. J. Obayagbona**  
*Project Co-ordinator*

---

**Date**

---

**Dr. O. G. Omorokunwa**  
*Head of Department*

---

**Date**

## **DEDICATION**

This work is dedicated to God Almighty for his care, love, grace, support and endless guidance towards me and my parents, Mr. and Mrs. Obasuyi for their relentless support.

## ACKNOWLEDGEMENTS

My sincere thanks to GOD Almighty, the source of my courage and inspiration, for enabling this project to be a big success. I give thanks to GOD, who has been my friend and confidant, for his unfailing love, kindness, and fidelity during my academic endeavor.

Thank you, Lord.

Additionally, I would want to thank my supervisor, Dr. Mr. Momoh, who is both a lecturer and a counselor. I appreciate your help, counsel, and thorough oversight at each level of this effort. I sincerely appreciate that, sir.

I owe my parents, Mr. and Mrs. Obasuyi, a great deal. particularly my mother, Mrs. Obasuyi. Likewise, to my mother, Mrs. Anita Abiodun. The gratitude I have for all of your suggestions, encouragement, assistance, and leniency toward my excesses. I'm grateful for the affection and financial support my lovely brother Esosa Obasuyi has given me, and I couldn't have asked for a better small mother (sister Faith). I'm so happy to be able to call you all my own. And I will always want you to be my siblings because you have been so supportive of me throughout my academic career, Treasure, Debby, and Favor.

Additionally, I want to express my gratitude to the friends I made at Uniben. The academic years were made delicious and special by Blessing, Aisosa, Esosa, Joy, Favor, Victory, Sarah, Flora, Glory, Precious, and Miracle. As well as to my Mr. KIA (Kelly

Imasuen Aisosa) I appreciate all of your love, support, and encouragement.

## TABLE OF CONTENTS

TITLE PAGE.....	i
DECLARATION.....	ii
CERTIFICATION.....	iii
DEDICATION.....	iv
ACKNOWLEDGEMENTS.....	v
TABLE OF CONTENTS.....	vii
ABSTRACT.....	xi
CHAPTER ONE.....	12
INTRODUCTION.....	12
1.1 Background to the Study.....	12
1.2 Statement of the Research Problem.....	15
1.3 Research Questions.....	16
1.4 Objectives of the Study.....	17
1.5 Hypotheses of the Study.....	17
1.6 Significance of the Study.....	18
1.7 Scope of the Study.....	18
CHAPTER TWO.....	19
LITERATURE REVIEW.....	19
2.1 Introduction.....	19
2.2 Conceptual Review.....	19
2.2.1 Concept of Capital Structure.....	19
2.2.1.1 Leverage (Debt Financing).....	21

2.2.1.2 Equity .....	23
2.2.2 Determinants of Capital structure .....	24
2.2.2.1 Size of the Firm .....	24
2.2.2.2 Tangibility .....	25
2.2.2.3 Profitability .....	26
2.2.2.4 Liquidity .....	26
2.2.2.5 Risk .....	27
2.2.3 Performance .....	28
2.2.3.1 Return on Equity (ROE) .....	30
2.2.3.2 Return on Assets (ROA) .....	30
2.3 Theoretical Review .....	31
2.3.1 Capital Structure Theories .....	31
2.3.1.1 Modigliani and Miller Theory .....	31
2.3.1.2 Pecking Order Theory .....	32
2.3.1.3 Static Trade-Off Theory .....	33
2.3.1.4 Agency Costs Theory .....	34
2.3.2 Performance Related Theories .....	35
2.3.2.1 Resource Based View Theory .....	36
2.3.2.2 Dynamic Capability Theory .....	39
2.4 Empirical Review .....	41
CHAPTER THREE .....	46
METHODOLOGY .....	46
3.1 Introduction .....	46
3.2 Research Design .....	46
3.3 The Population and Sample of the Study .....	47
3.4 Sources of Data .....	47

3.5 Theoretical Framework and Model Specification .....	47
3.6 Measurement and Operationalization of Variables .....	48
3.6.1 Dependent Variable .....	48
3.6.2 Predictors/Explanatory/Independent Variables .....	49
3.7 Method of Data Analysis .....	49
CHAPTER FOUR .....	50
DATA PRESENTATION, ANALYSES AND DISCUSSION OF FINDINGS .....	50
4.1 Introduction .....	50
4.2 Presentation of Results on Capital Structure and Financial Performance of Oil and Gas Firms in Nigeria .....	52
4.2.1 Descriptive Statistics on Capital Structure and Financial Performance of Oil and Gas Firms in Nigeria .....	52
4.2.2 Correlation Analysis on Capital Structure and Financial Performance of Oil and Gas Firms in Nigeria .....	54
Table 4.2: Correlation Results on Capital Structure and Financial Performance of Oil and Gas Firms in Nigeria .....	55
4.2.3 Unit Root Analysis on Capital Structure and Financial Performance of Oil and Gas Firms in Nigeria .....	55
4.2.4 Regression Analysis on Capital Structure and Financial Performance of Oil and Gas Firms in Nigeria .....	57
4.2.4.1 Panel Equation and Analysis of Data .....	57
4.3 Test of Hypotheses .....	60
4.3 Interpretation of Results and Discussion of Findings .....	61
CHAPTER FIVE .....	63
SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS .....	63
5.1 Summary of Findings .....	63

5.2 Conclusion .....	64
5.3 Recommendations .....	64
REFERENCES .....	65
APPENDIX .....	65

## ABSTRACT

## CHAPTER ONE

### INTRODUCTION

#### **1.1 Background to the Study**

Nigeria is an oil-dependent country because this industry generates a substantial percentage of its revenue. As a result, if this sector does not make appropriate funding decisions, the Nigerian economy will suffer. A company's capital structure can be characterized as a means for financing its whole operations and expansion by utilizing various sources of funding such as debt and equity. A company's ability to meet the needs of its stakeholders is inextricably linked to its financial structure (Ong & Teh, 2011). Scholars are yet to achieve an agreement on the question of capital structure and performance; yet, capital structure is unavoidable for the operation and survival of any corporation; so, for a company to function as a going concern, it must examine its current financial structure. An entity cannot exist without its capital structure in the same way that man cannot exist without his skeletal structure because this is the basis upon which an entity is created (Bingilar & Kpolode, 2021).

Because of the increased competitiveness and technological innovation in the oil sector in recent years, capital structure decisions have become a crucial part of management and a prerequisite for business survival. Inadequate capital structure decisions to fund a firm's activities may result in liquidation, financial difficulties, or bankruptcy (Omukaga, 2017). Following Modigliani and Miller's seminal 1958 work, there has been significant discussion about the relationship between capital structure and business financial performance. They contend that the value of a company is determined by its real assets rather than its capital structure. In the absence of taxes

and bankruptcy costs, and assuming that the market is efficient and knowledge is asymmetric, the source of money, whether debt or equity, is immaterial to a firm's valuation, according to Modigliani and Miller (Omukaga, 2017). Modigliani and Miller's assumptions were harshly attacked since they could not be supported by real-world business contexts paired with macroeconomic unpredictability. Following Modigliani and Miller's pioneering work, many capital structure theories were developed, including trade off theory by Myers in 1984, which argues that the optimum capital structure exists; pecking order theory by Myers and Majluf in 1984, which indicated managers have a strong preference for using internal funds; and the agency cost theory by Jensen and Meckling in 1976, which indicated the principal-agent problem can be reduced by increasing debt level (Basit & Irwan, 2017).

The debt-equity mix is a key decision since any improper mix will have an impact on performance and, in the long run, the firm's viability. Before electing to employ debt to support an entity's operations, those in charge should assess the available sources, the risk connected with those sources, and the strategic approach put in place to manage this fund. If sufficient strategic planning is not performed prior to the sourcing and acquisition of this fund, it may cause certain organizations to participate in improper fund matching, and some may even adopt an aggressive approach, using current debt to finance non-current capital investment or assets (Ganiyu, Adelojo, Rodionova & Samuel, 2019). Similarly, if the corporation decides to employ equity, it must analyze how it will maximize the wealth of its shareholders while also understanding when to deliver dividends to its shareholders or keep the cash for future investment; dividends, however, should not be paid out of capital. If the company intends to finance its operations with both debt and equity, it should do so in a smart and balanced manner to prevent mismatching debt and equity. Because each of these capital structure pieces has advantages and downsides, with a goal capital structure

already set, the firm will seek the lowest accessible sources (Kpolode, Edoumiekumo & Alfred, 2020).

Every financial manager must make three critical decisions: what investment should the firm's proposed resources be invested in, which must be stated strategically before moving on to the next critical decision; where can this fund/resources be obtained, keeping risk minimization and the cheapest sources in mind; and the manager must also put in place strategic procedures on how to manage this fund so that the firm can meet its financial objectives (Ngwoke & Sergius, 2019). A company's capital structure, according to Ross, Westerfield, and Jordan (2008), is the combination of equity and debt that it possesses. The firm will require cash at some time during its life cycle; the size and lifespan of the firm will help determine whether to borrow, divest, or engage in both operations; this option may result in capital restructuring in the long run. As a result, if a firm's capital structure decision is hastily made, the firm's value suffers (Oladele, Omotosho & Adeniyi, 2017).

Capital structure, an independent variable, is divided into total debt to total assets, total debt to total equity, and long term debt to total assets. The debt to assets ratio calculates how much debt (the sum of long term and current portion of debt) a company has on its balance sheet in relation to total assets; total debt to total equity calculates the relative proportion of shareholders' equity and debt used to finance a company's assets; and long term debt to total assets calculates the firm's debt in relation to total assets. The dependent variable consists of: The financial performance of oil and gas firms is measured in terms of return on assets, return on equity, net profit margin, and gross revenue. Return on assets demonstrates a company's ability to channel available funds to competing profit-making ventures; net profit margin provides information on the percentage of profit that sales can generate, while gross revenue determines a firm's total revenue before any deductions or allowances, such

as rent, cost of goods sold, taxes, and so on, are made (Uremadu & Onyekachi, 2019). According to Echekeba and Ananwude (2016), a firm's assets can vary depending on whether they are related to its operating activity (inventory or fixed assets), to its liquidity needs (cash and deposits), or represent financial assets related to its transactions (trade receivables), or owned as a form of investment (shares). Because the reported values of numerous structural components are extremely fluid from time to time: short term obligations, long term liabilities, and even retained earnings, a company's financial structure might fluctuate by a modest amount more or less regularly (Echekeba & Ananwude, 2016). A firm, for example, can purposefully increase leverage in the short term by taking out loans or issuing bonds. It can immediately reduce leverage and raise equity by issuing and selling additional shares of stock.

## **1.2 Statement of the Research Problem**

Several research in developed and emerging nations have been done to try to determine the relationship between capital structure and firm financial performance. According to the Central Bank of Nigeria's (CBN) statistical bulletin, total credits extended to the oil and gas sector in 2016 were estimated to be worth N12,796 billion, the highest in a sectoral analysis of deposit money bank loans and advances, representing a 31.81 percent increase over N8,726 billion in 2015. Despite the vast amounts of credit offered by deposit money banks, the oil and gas industry is the most indebted to the banking sector. As of February 31st, 2018, the oil and gas sector's debt to Nigerian deposit money banks amounted at N3,58 trillion. In this circumstance, a layperson might wonder why deposit money banks prioritize lending to oil and gas corporations above lending to other sectors of the economy. Aside from that, two difficulties surfaced during the review of theoretical and empirical literature, which

prompted this investigation. For starters, the theoretical literature is divided on the precise nature of the relationship between capital structure and business financial performance. The first capital structure theory (Irrelevance Theory of Capital Structure) proposed by Modigliani and Miller states that financial performance is not dependent on capital structure; trade-off theory proposed the existence of an optimum capital structure; pecking order theory revealed managers' preference for internal funds over debt; and agency cost theory proposed that as debt levels increased, the problem of principle – agent would be reduced to the bare minimum.

The empirical evidence on the relationship between capital structure and firm financial performance is contradictory. In other words, experts disagree about the effect of capital structure on the financial performance of Nigerian oil and gas businesses. The empirical findings of Oladeji, Ikpefan, and Olokoyo (2015), David and Olorunfemi (2010), Bashiru and Bukar (2016), and Echekeba and Ananwude (2016) show a negative relationship between capital structure and financial performance, whereas the study by Javadi, Alimoradi, and Ashtiani (2017) shows a positive relationship. This inspired this research study to include gross sales growth as a financial success metric. Nonetheless, the contradictions in empirical findings in this area necessitate additional research in Nigeria, where crude oil sales account for more than 90% of the Federal Government's revenue.

### **1.3 Research Questions**

The research question for this study includes;

- i. To what extent does short-term debt ratio influence the financial performance of oil and gas companies in Nigeria?
- ii. How does Long-term debt ratio influence the financial performance of oil and gas companies in Nigeria?

- iii. What is the relationship between total debt ratio and the financial performance of oil and gas companies in Nigeria?
- iv. To what extent does total debt to equity ratio influence the financial performance of oil and gas companies in Nigeria?

## **1.4 Objectives of the Study**

The overall objective of the study is to examine the extent in which capital structure influence financial performance of oil and gas companies in Nigeria. The specific objectives of the study are;

- i. To ascertain the extent to which short-term debt ratio influences the financial performance of oil and gas companies in Nigeria.
- ii. To determine the relationship between long-term debt ratio and the financial performance of oil and gas companies in Nigeria.
- iii. To evaluate the relationship between total debt ratio and the financial performance of oil and gas companies in Nigeria.
- iv. To examine the extent to which total debt to equity ratio influences the financial performance of oil and gas companies in Nigeria.

## **1.5 Hypotheses of the Study**

The hypotheses of this study are as follows:

**H<sub>01</sub>:** Short-term debt ratio (STDR) has no significant influence on the financial performance of oil and gas companies in Nigeria.

**H<sub>02</sub>:** Long-term debt ratio (LTDR) has no significant influence on the financial performance of oil and gas companies in Nigeria.

**H<sub>03</sub>:** Total debt ratio (TDR) has no significant influence on the financial performance of oil and gas companies in Nigeria.

**H<sub>04</sub>:** Total debt-equity ratio (TDER) has no significant influence on the financial performance of oil and gas companies in Nigeria

## **1.6 Significance of the Study**

This study is regarded timely and significant because there has not been much exhaustive work done on the performance of oil and gas enterprises in Nigeria, particularly in the area of capital accumulation and formation for a good productive basis for the economy.

This research effort traces the trajectory of oil and gas enterprises' performance on the Nigerian economy, offering information to numerous consumers in the oil and gas industries, as well as scholars from various fields. It will also aid in recommending strategies or initiatives that Nigerian oil and gas companies might take to prepare for future problems and challenges.

The study will benefit individual investors, corporate groups, and the government by educating Nigerian entrepreneurs on the need for and value of oil and gas corporations' activities in Nigeria. Increasing public awareness of the contribution of oil and gas companies' activities to the expansion of private share ownership in the country.

## **1.7 Scope of the Study**

The scope of the study is limited to oil and gas firms listed on the floor of the Nigerian stock exchange, assessing the influence of capital structure on the financial performance of oil and gas companies in Nigeria. The study covers the period 2015 – 2020 (6 years). Data needed for this study will be obtained from the annual financial reports of listed oil and gas firms in Nigeria.

# **CHAPTER TWO**

## **LITERATURE REVIEW**

### **2.1 Introduction**

This chapter reviews some of the studies that have evolved over the past years on development of the subject matter. It presents the reviewed literature relevant to capital structure and its implications on the performance of oil and gas firms in Nigeria. It draws literature from empirical studies that have been done locally and globally. Particular emphasis is laid on dealing with capital structure theories and factors that influence the capital structure of a firm.

### **2.2 Conceptual Review**

#### **2.2.1 Concept of Capital Structure**

The capital structure of a company refers to its financial framework, which includes the debt and equity used to finance the company. One of the most popular subjects among finance scholars is capital structure. The ability of a company to meet the needs of its

stakeholders is inextricably linked to its debt-equity balance. As a result, this deduction is a crucial point that we must not overlook. In finance, capital structure refers to how a company finances its assets through the use of a combination of equity, debt, or hybrid securities (Saad, 2010; Omukaga, 2017). In a nutshell, capital structure is a combination of a company's debts (both long-term and short-term), common equity, and preferred equity. The capital structure of a company determines how it finances its overall operations and growth by utilizing several sources of funding. Myers (2001) contends that there is no universal theory of the debt-equity trade-off and that there is no reason to assume one. However, there are a number of relevant conditional theories, each of which aids in understanding the capital structure that enterprises select.

According to Ebaid's (2009) research, capital structure has little to no influence on the financial performance of Egyptian listed companies. Using three accounting-based financial performance measurements, Return On Assets (ROA), Return On Equity (ROE), and Gross Margin (GM), the empirical tests found that capital structure (particularly short-term debt and total debt, as measured by ROA and GM) have no significant impact on an organization's performance. According to Zeitun and Tian (2007), a firm's capital structure has a large and negative impact on both accounting and market performance indicators.

A corporation's capital structure is a combination of securities and financing sources used to fund real investments. Myers (2001) The debt-equity mix is the combination of debt, preferred stock, and common equity used by the corporation to raise cash. The company must make investments in order to at least stay in business and show some development. A firm's debt-equity mix is critical because it relates to the firm's ability to meet the needs of its stakeholders; both debt and equity financing are significant ways for businesses to obtain capital to fund their operations. Choosing which to utilize or highlight is determined by the company's long-term goals and the level of control

managers intend to keep. Experts recommend that businesses utilize an economically reasonable ratio of debt and equity funding.

This ratio, known as the debt-to-equity ratio, is a significant indicator used by analysts to judge whether managers are running a corporation wisely. Although debt-to-equity ratios vary greatly by industry and company, a general rule of thumb holds that a reasonable ratio should fall between 1:1 and 1:2.

### **2.2.1.1 Leverage (Debt Financing)**

The use of various financial instruments or borrowed funds, such as margin, to boost the possible return on investment is referred to as leverage. It is also the amount of debt utilized to finance the asset of a company (Basit & Irwan, 2017). A company that has much more debt than equity is said to be heavily leveraged. Debt finance is simply money borrowed to run your firm. Debt financing is the borrowing of funds to fund a purchase, acquisition, or expansion. Debt funding for businesses and corporations frequently include the sale of notes, bonds, mortgages, or other debt instruments. Individuals and financial institutions that provide debt funding are referred to as creditors. Debt finance, because it involves borrowed funds, must be repaid, generally in installments and with interest. The amount of interest that must be paid on debt financing is decided by the borrower's creditworthiness, the anticipated use of the money, and the present financial climate. Debt financing is appealing to businesses and companies because the interest paid is tax deductible (Kpolode, Edoumiekumo & Alfred, 2020).

Debt financing is separated into two categories based on the type of loan sought: long term debt financing and short term debt financing.

**Long Term Debt Financing** usually refers to assets that your company is purchasing, such as equipment, buildings, land, or machinery. The maturity duration of long-term

debt financing is often greater than 5 years. Medium-term investments typically have a maturity time of 1 to 5 years (Oladele, Omotosho & Adeniyi, 2017).

**Short Term Debt Financing** typically refers to funds required for the day-to-day running of a business, such as acquiring merchandise, supplies, or paying employee salary. Because the scheduled repayment period is less than one year, short term financing is also known as an operating loan or short term loan. A credit line is an example of short-term debt financing (Oladele, Omotosho & Adeniyi, 2017).

Loan capital can be obtained from a bank or finance business as long-term loans, or from debt-equity investors as debentures or preferred stock (preference shares), and is typically secured by a fixed and/or floating charge on the company's assets. Unlike debt capital, it excludes short-term loans (such as overdrafts), which are also referred to as borrowed capital (Oladele, Omotosho & Adeniyi, 2017).

There are numerous aspects in a debt-equity mix selection and debt maturity structure that will influence a company's investment decision. In this scenario, examining the impact of capital structure's factors on company performance will give evidence for firm performance due to capital structure's effect (Tian & Zeitun, 2007; Uremadu & Onyekachi, 2019). Abor (2005) conducted a five-year study on the impact of capital structure on the profitability of listed companies on the Ghana Stock Exchange. He discovered that there is a large positive association between short-term debt and ROE, indicating that enterprises that employ more short-term debt to finance their company earn more. In other words, short-term debt is an important source of funding for Ghanaian businesses, accounting for 85 percent of overall loan financing. However, the results demonstrated an inverse link between Debt and ROE, which measures the relationship between total debt and profitability, indicating that enterprises that earn a lot rely on debt as their primary financing source. Equity finance is the inverse of debt financing.

## 2.2.1.2 Equity

Equity finance refers to funds collected from investors in exchange for a share of the company's ownership (Echekoba & Ananwude, 2016). These funding could come from the business owner's friends and relatives. Angel investors with a lot of money or venture capital firms. An equity investment is the purchase and holding of shares of stock on a stock exchange by individuals and businesses in anticipation of income from dividends and capital gains as the stock's value grows. It can also refer to the purchase of equity (ownership) in a private (unlisted) corporation or a startup company. When an investment is made in a startup company, it is referred to as venture capital investing, and it is generally seen as a higher risk than an investment in a publicly traded company. The personal investment of the owner(s) in the firm is represented by equity capital. It is called risk capital because investors accept the risk of losing their money if the firm fails; if the business fails, the investors do not have to be returned with interest, as a loan would. This means that an entrepreneur must give up some of his or her company's ownership to outside investors. In accounting and finance, equity is the remaining claim or interest of the most junior class of investors in assets when all liabilities exceed assets. Negative equity emerges when all liabilities surpass assets. Shareholders equity (or stockholders equity, shareholders' funds, owners capital, or similar terminology) reflects a company's remaining interest in assets, distributed among individual shareholders of regular or preferred stock.

At the outset of a business, the proprietors put some money into it to finance operations. As the business is a different entity from its owners, this creates a liability in the form of capital. For accounting purposes, a business can be defined as the total of its liabilities and assets ( $A+L$ ); this is the accounting equation. After liabilities are deducted, the positive remainder is considered the owner's interest in the business. The equity of the owner can be lowered to zero. Ownership equity can also be referred to as

risk capital or responsible capital (Echekoba & Ananwude, 2016).

In financial accounting, equity capital is the owner's interest in the enterprise's assets after all obligations have been deducted. It appears on the balance sheet/statement of financial position as one of the four basic financial statements of accounting mentioned under ownership equity, which includes but is not limited to: share capital (common stock), preferred stock, capital surplus, retained earnings, and reserve (Echekoba & Ananwude, 2016).

## **2.2.2 Determinants of Capital structure**

### **2.2.2.1 Size of the Firm**

One of the most important determinants of a firm's capital structure is its size. Larger organizations are more diverse, and as a result, their cash flows are less variable. The likelihood of bankruptcy may then be inversely connected to size (Titman & Wessels, 1988; Rajan & Zingales, 1995; Echekoba & Ananwude, 2016). According to Ferri and Jones (1979), large enterprises have easier access to markets and can borrow at favorable terms. Small enterprises face more severe disputes between creditors and shareholders since their management tend to be significant shareholders and are better able to switch from one investment project to another (Grinblatt & Titman, 1998; Echekoba & Ananwude, 2016). This issue, however, may be reduced through the use of short-term debt, convertible bonds, and long-term bank funding. The majority of empirical investigations show a positive association between size and leverage (Rajan & Zingales, 1995; Frank & Goyal, 2002; Booth et al., 2001). Other writers report less conclusive findings (Kremp et al., 1999; Ozkan, 2001). According to Zeitun and Tian (2007), business size has a favorable impact on a firm's performance since large enterprises have minimal bankruptcy costs. In other words, when business size drops,

bankruptcy costs rise; as a result, bankruptcy expenses have a negative impact on firm performance. Smaller firms are moving toward a smaller debt ratio as a result of costly asymmetric information from lenders. As a result, a positive link between size and debt-equity mix of the listed oil and gas businesses under this study is expected.

### **2.2.2.2 Tangibility**

The tangibility of a firm's assets is also important in deciding its debt-equity balance. Tangible assets are more likely to influence a firm's borrowing decisions since they are less susceptible to informational asymmetries and often have a higher value than intangible assets in the event of bankruptcy. Furthermore, moral hazard risks are decreased when a corporation offers tangible assets as security, as this sends a favorable signal to creditors, who can request the sale of these assets in the event of default. As a result, tangible assets make acceptable loan collateral. According to Scott (1977), when current creditors do not have such guarantees, a corporation can improve the value of its equity by issuing collateralized debt. As a result, corporations have an incentive to do so, and a positive relationship between the importance of tangible assets and the degree of leverage would be expected. Harris and Raviv (1990) argue that enterprises with more tangible assets should take on more debt, based on agency problems between managers and shareholders. This is due to managers' refusal to liquidate the firm even when the liquidation value is greater than the firm's value as a going concern. Indeed, raising the leverage increases the likelihood of default, which benefits shareholders.

Firms with minimal tangible assets are more sensitive to informational asymmetries, according to pecking order theory. When these enterprises require external financing, they will likely issue debt rather than equity (Harris & Raviv, 1991), resulting in a predicted negative link between the importance of intangible assets and leverage. The

majority of empirical investigations conclude that collaterals and debt levels have a favorable relationship (Rajan & Zingales, 1995; Frank & Goyal, 2002).

### **2.2.2.3 Profitability**

One of the major theoretical debates involves the relationship between leverage and company profitability. According to the pecking order idea, corporations prefer to use internal sources of finance first, followed by debt, and ultimately external equity obtained through stock issuances. All else being equal, the more lucrative the enterprises are, the more internal finance they will have, implying a negative link between leverage and profitability. This is one of the most systematic empirical discoveries in the literature (Harris & Raviv, 1991; Rajan & Zingales, 1995; Booth et al., 2001).

An opposite conclusion is expected under a trade-off theory paradigm. When a company is profitable, it should favor debt in order to benefit from the tax break. Furthermore, if previous profitability is a good predictor of future profitability, profitable enterprises can borrow more because the likelihood of repaying the loans is higher. Dynamic theoretical models based on the existence of a goal debt-to-equity ratio demonstrate that there are adjustment costs to raise the debt-to-equity ratio towards the aim that debt may easily be reimbursed with excess cash produced by internal sources. This causes enterprises to behave in a pecking order in the short term, despite their desire to increase their debt-to-equity ratio (Fischer et al., 1989; Leland, 1998).

### **2.2.2.4 Liquidity**

Financial assets, according to Ezirim (2005), are significant because they provide liquidity. According to him, liquidity refers to the ease with which assets can be turned

into cash with little or no loss in value, time, or convenience. (Ibenta, 2005) defines liquidity as the ability to realize value in cash, which has two components: an asset's conversion time, or the time lag between deciding to sell an item and receiving payment for it, and its conversion price. Liquidity is viewed as the blood running through the biological system of any organization in the work of (Adaramola & Olarewaju, 2015), as oil and gas are not in isolation. However, there has been significant disagreement over the relationship between liquidity and capital structure; some find a positive influence, while others find a negative relationship. Liquid enterprises, according to the tradeoff hypothesis, have more equity and trade with less debt.

#### **2.2.2.5 Risk**

The risk level of a company should never be disregarded when considering the factors of its debt-equity mix. The risk of oil and gas firms will be quantified in this study by the proportion of claims paid versus net premium received each time. According to the research of Abor and Biekpe (2005) and Adaramola and Olarewaju (2015), a positive association exists between the risk level and leverage of oil and gas firms and the return on assets of oil and gas companies. In common parlance, risk is defined as a condition of uncertainty, unpredictability, doubt, worry, and the possibility of no loss (Ezirim, 2005). Human life and all elements of it are constantly hampered by these impediments. As a result, risk becomes evident in any circumstance in which humans are unable to predict or fully control the future. For example, when running a firm, it is very difficult for the businessman to guarantee that his investments would provide positive returns rather than negative returns.

### **2.2.3 Performance**

The achievement of a particular work judged against specified standards and regarded as a fulfillment of a responsibility is referred to as performance. Performance can also refer to the amount of time and effort put in to achieve a specific goal. Goal achievement requires a combination of human, financial, and company resources. According to Nirmal (2004), performance not only denotes the demonstration of something, but it also denotes the quality and effectiveness of the results obtained by the enterprise's management. According to Almajali (2012), performance is an outcome achieved by an individual or a group in an organization related to the authority and responsibility given to achieve the goal legally, it is the ability of the firm to gain and manage the company's resources in various ways to develop competitive advantage and achieve the organization's objectives.

Performance assesses how successfully a company can use its resources to generate income; in other words, it analyzes overall financial performance over a certain time period and can be used to compare the results of similar companies in the same industry. The level of performance of a business over a certain period of time is to be assessed in order to define the level of the accomplished result; evaluating a corporation's performance helps decision makers to judge the outcome of the activities completed. The firm's performance might be compared against the organization's goal and objectives, a benchmark, or the industry average.

Financial performance assesses an organization's financial strength and health in monetary terms and can be used to compare the profitability of different enterprises within or across industries. The financial performance of oil and gas companies is critical to the growth of the industry as a whole, which eventually adds to an economy's prosperity (Iswatia, & Anshoria, 2007). Good performance denotes the firm's ability to

obtain a suitable return and fulfill its goals through the use of resources in the operation of a business.

According to Chen and Wong (2004), oil and gas company performance is typically characterized in terms of net premium generated profits from underwriting activities, return on asset, yearly turnover, returns on investment, and return on equity. According to Indranarain (2009), these measurements are divided into two categories: profit performance measures and investment performance measures. Profit performance comprises profits calculated as the difference between revenues and expenses. Oil and gas firms' profit performance is influenced by firm-specific, industry-specific, and macroeconomic variables. There are two types of investment performance. One is the return on assets other than cash used in the firm, and the other is the return on investment operations of the cash surplus produced on operations at various levels.

According to Malik (2011), the firm's financial success can be measured by measuring its profitability. In this ever-changing and competitive globalized world, insurers cannot attract external investors' cash unless they are profitable. Profit enhances insurers' solvency and is also important in persuading policyholders and shareholders to provide funding to oil and gas companies (Harrington & Wilson, 1989). Thus, one of the aims of oil and gas company management is to improve the firm's financial performance in order to achieve profit as an underlying requirement for performing any oil and gas business.

Financial ratios in financial statements provide distinct indications of financial performance. Some of the finest measures of a company's financial performance include return on assets (ROA), return on equity (ROE), and earnings per share. ROA is commonly used by financial analysts to assess the financial performance of oil and gas companies. An increase in the ROA ratio indicates that the comparable business is performing well financially, and vice versa (Epps & Cereola, 2008).

### **2.2.3.1 Return on Equity (ROE)**

ROE is calculated by dividing net income (income accessible to common stockholders) by stockholders' equity. It is a measure of a company's performance from the perspective of its shareholders (Nasiru, Ibrahim, Yahya & Aliyu, 2011). Return on equity measures the earnings (income) available to oil and gas business investors (including ordinary and preferred shareholders) on the capital invested in the company (Purnamasari, 2015).

ROE rises as financial gearing grows, as long as the returns on borrowed funds exceed the cost of borrowing.

### **2.2.3.2 Return on Assets (ROA)**

ROA assesses management's overall effectiveness in generating profits from available assets. According to Wilkinson (2013), ROA displays how much profit a company produced in contrast to its total assets. Hargrave (2019) considered ROA as a sign of the company's success in managing wealth (assets) owned by the company, so that raising the ROA ratio reflects the company's performance in managing assets held, allowing it to create profits or earnings. The total asset turnover is used to assess the business's performance as well as its financial status (Zager et al., 2008 cited in Zhang 2017). Furthermore, because net profit margin has a direct impact on return on assets (ROA), they are always assessed jointly (Gibson, 2013). The most popular way to calculate return on assets (ROA) is to divide net income by average total assets.

## **2.3 Theoretical Review**

### **2.3.1 Capital Structure Theories**

Corporate financing decisions are extremely complicated processes, and existing theories can only explain a subset of the diversity and complexities of financing options. Capital structure has piqued the interest of financial experts since Modigliani and Miller released their seminar paper in 1958.

#### **2.3.1.1 Modigliani and Miller Theory**

Modigliani and Miller were among the first to speculate about capital structure. They stated their capital structure irrelevance proposition in their seminar paper, *The Cost of Capital, Corporation Finance, and the Theory of Investment*, *American Economic Review*, (June, 1958), that capital structure has no predictable material effect on corporate market values in a perfect capital market. Modigliani-Miller establishes the foundation for modern capital structure theory and, for the first time, presents the concept of capital structure. According to their thesis, the manner a corporation is financed has no effect on its value in an efficient market because there are no taxes, bankruptcy costs, or systematic information.

They contended that in efficient markets, the capital structure option had no bearing on the firm's value, and that the gains of employing debt will be offset by a reduction in the company's stock price. Prior to the MM hypothesis, popular wisdom held that using financial leverage increased the value of a company. There is an optimum capital structure that minimizes capital costs in this regard. Modigliani and Miller (1963) softened the conditions in a subsequent study, demonstrating that under capital market imperfection, where interest expenditures are tax deductible, firm value increases with

increased financial leverage. Models based on tax impact suggest that profitable organizations should have more loans since they have a greater requirement for tax management in their profits.

Increasing debt, on the other hand, increases the likelihood of bankruptcy. As a result, the optimal capital structure represents a degree of leverage that balances the risks of bankruptcy with the benefits of debt financing.

### **2.3.1.2 Pecking Order Theory**

This theory is predicated on the assumption that businesses have a preferred hierarchy for financing decisions and maximize value by consistently preferring to finance new investments with the cheapest accessible source of funds. Managers prefer domestically generated funds (retained earnings) to external funding, and if necessary, prefer debt to equity because debt issues have lower information costs. According to Myers (1984), in the Capital Structure Puzzle, *Journal of Finance*, corporations would only issue stock as a last resort if their loan capacity was exhausted. It is worth mentioning that internal funds suffer no flotation expenses and do not necessitate additional disclosure of confidential financial information, which could result in more stringent market discipline and a possible loss of competitive advantage. If a company must employ external capital, the recommended order of financial sources is debt, convertible securities, preferred stock, and common stock (Myers, 1984). This order represents the finance manager's desires to retain control of the firm (since only common stock has a voice in management), lower the agency costs of equity, and avoid the almost inevitable unfavorable market reaction to an announcement of a fresh share offering (Hawawini & Viallet, 1999).

Managers, as opposed to investors, have a better understanding of operations. According to Myers and Majluf (1984), this causes the stock's pricing with investors to

be understated. When there is asymmetric information, corporations prefer internal financing over stock issuance, and when there is no suitable internal source, they choose borrowing. As a result, the choice pecking order theory of funding is based on asymmetric knowledge.

The main conclusion of asymmetric information theories is that there is a hierarchy of preferences for financing their investments (Myers & Majluf, 1984). According to this preference hierarchy, enterprises should finance their investments first with internally available cash, then with debt, and finally with external equity. Demitrov and Jain (2003) developed another theory based on company operational performance. They contended that if managers had access to secret information regarding future operational performance deterioration, their debt would be increased. Thus, increased leverage is a bad sign that indicates poor future performance. According to Rajan and Zingales (1995), larger organizations tend to provide more information to outside investors than smaller enterprises. Overall, larger organizations with less asymmetric information problems should have more equity than debt, resulting in reduced leverage. Larger organizations, on the other hand, are frequently more diversified and have more consistent cash flow; the likelihood of bankruptcy for large firms is lower when compared to smaller ones.

### **2.3.1.3 Static Trade-Off Theory**

According to Jensen and Meckling (1976), the ideal capital structure of a corporation will involve a trade-off between the effects of corporate and personal taxes, bankruptcy costs, and agency expenses, among other things. The trade-off theory outlines the capital structure by demonstrating how much debt and equity finance the company should utilize to balance the costs and benefits (Frank & Goyal, 2009). The capital

structure can also sometimes lead to a firm's insolvency and has a negative and harmful effect on the firm's performance if not correctly employed. A firm is an amalgamation of assets with one owner that link with other assets to produce and sell merchandise; if firm performance affects capital structure choice, then failure to account for this reverse causality may result in regression of firm performance on a measure of leverage confounding the effect of capital structure on performance.

The capital structure of a company refers to the composition of its financial liabilities. Because financial capital is an uncertain but crucial resource for all firms, financiers can exert influence on them (Rahul Kuchhar, fall 1997).

### **2.3.1.4 Agency Costs Theory**

Agency costs increased as a result of the separation of ownership and control, as well as conflicts of interest among different types of agents. Free cash flow is one of the issues that causes disagreement between managers and shareholders. Debt, according to Jensen (1988), is a disciplinary instrument used to ensure that managers prioritize wealth generation for equity holders. Thus, in organizations with high cash flow and profitability, increasing debts can be used as a strategy to reduce the scope for managers, so that corporate resources are not wasted as a result of their individual goals. Most academics believe that capital structure decisions can assist reduce agency costs (Papa & Speciale 2007, Richardson 2005, Douglas 2002). High leverage lowers agency costs by limiting or motivating managers to act more responsibly in the interests of shareholders by reducing cash flows available for management spending. As a result, we anticipate significant earnings in areas with high debt ratios.

Another contradictory issue is that managers may not reap the full benefit of their efforts. This is apparent when the manager's stake in the company is small. This inefficiency decreases when the manager's stock is high. As a result, it is desirable that

managers are barred from diminishing their portion of ownership interest by raising debt rather than stock issue (Huang, Song, 2005). Stulz (1990), like Jensen, believes that loan payments reduce available cash flows for managers. However, he claims that this drop will reduce the prospects for profitable investing. As a result, organizations with less debt have more investment options and, in comparison to other active enterprises in the industry, more liquidity. The agency cost hypothesis contributes that leverage corporations are beneficial for shareholders since the debt level can be utilized to oversee the managers (Boodhoo, 2009). As a result, significant leverage is projected to minimize agency costs, reduce inefficiencies, and increase company performance (Akintoye, 2008)

### **2.3.2 Performance Related Theories**

There is no universal theory of financial performance that provides a unifying framework for the study of financial performance determinants in oil and gas firms. As a result, the study attempts to examine various theories that are more closely related to the concept of oil and gas company performance and its drivers. There are several helpful conditional theories that attempt to approach performance determination from various angles. This section went over those theories.

### **2.3.2.1 Resource Based View Theory**

Warnerdelt (1984) established the resource-based view theory, which seeks to explain the benefits of proper resource management in organizations. According to Mahoney and Pandian (1992), a resource-based perspective of a corporation describes a firm's ability to generate lasting competitive advantage when resources are correctly managed in such a way that their outcomes cannot be reproduced by competitors, resulting in a competitive barrier. According to the theory, it is far more practical to capitalize on external chances by repurposing existing resources rather than attempting to learn new abilities for each opportunity. Through proper management and usage of the firm's available resources, the firm may be able to achieve the desired competitive advantage.

According to Wanjugu (2014), a resource-based view implies that some unique existing strategic resources will result in superior performance and, as a result, a competitive advantage. The capacity of rivals to utilize valuable, rare, inimitable, and non-substitutable resources is instinctual and theoretically rewarding, but it is critical to note that value, rare, inimitable, and non-substitutable are not fully invariables. However, due to the volatility of today's markets, a firm's existing resources may not be sufficient to meet future market demands. In order to compete in the future market, it is critical to alter and develop resources.

According to Madbani (2010), the Resource Based View investigates and comprehends an organization's internal resources and emphasizes resources and capabilities in designing strategy to attain long-term competitive advantages. Resources can be thought of and used as inputs that allow firms to carry out their activities in order to achieve long-term firm goals. Firms must be distinctive and core talents and resources that are valuable, scarce, imperfectly imitable, and non-substitutable, as well as imagine value-creating strategies to utilize them, in order to preserve sustainable competitive advantages for continued superior performance. Intangible resources, such as intellectual and technological resources, are more ideal for generating competitive advantage than tangible resources, such as people and financial resources. Some organizations' capabilities also enable them to add value in the customer value chain, develop new goods, and grow into new markets. The RBV makes use of the organization's existing resources and competencies to create long-term competitive advantages.

A resource-based view of a firm explains a firm's ability to generate and retain a competitive advantage when its resources are handled in such a way that its outputs cannot be reproduced by its competitors, resulting in a competitive barrier (Mahoney & Pandian 1992). The study's proposed theory is that the available resources at oil and gas businesses are a huge predictor of how well they function. In fact, the impact of

fundamental, dynamic changes in the environment on value, rarity, inimitableness, and non-substitutability has increased significantly over time. In other words, RBV states have their falls, such as in the valuable attribute, the need for planning and investment to develop such resources are external factors, which means the RBV may overstate the profitability of firms by exploiting these resources, because the cost of acquisition and accumulation was avoided. As a result, managers at oil and gas businesses must guarantee that their available resources are fully utilized in order for them to succeed financially. They should also make certain that they have resources that are unique to them and cannot be simply duplicated by their competitors in the oil and gas industry (kollie, 2017).

### **2.3.2.2 Dynamic Capability Theory**

Teece was the first to propose and develop the theory in 1997. The theory examines a firm's ability to integrate, grow, and reconfigure internal and external competencies in response to quickly changing circumstances. These enable firms to maintain dominance and develop competitive advantages in order to meet the organization's goals. In an ever-changing environment, organizations and their people must be able to learn rapidly and generate strategic assets. New strategic assets, such as capability, technology, equipment, highly skilled employees, and customer feedback, must be integrated into the organization. Dynamic capability is fundamentally an organization's learning, the creation of new assets, and the transformation of current assets.

According to Teece (2009), three dynamic qualities are required to meet new problems. To overcome an issue, organizations and their people must be able to adapt quickly and generate strategic assets. New strategic assets such as capability, technology, and consumer input must be integrated into the organization. Existing strategic assets must be redesigned or reconfigured. Over time, a firm's assets may become co-specialized,

which occurs when a company's physical assets, human resources, and intellectual property provide a synergistic combination of complementary assets. Such co-specialized assets are more valuable when combined than when purchased separately. The merger of several asset types provides a corporation with a more durable competitive edge.

Dynamic capabilities, according to Grant (1996) and Pisano (1994), are the fundamental organizational and strategic processes by which managers adjust their resource base, acquire and lose resources, integrate and recombine them to produce new value creating strategies. According to them, dynamic capabilities are identifiable and specific routines with some integrating and combining of resources, such as product design and development routines in which managers combine their special skills and functional backgrounds to create revenue-generating products and services. Managers employ transfer procedures, which include replication and brokering routines, to duplicate, move, and recombine resources, particularly metrics, according to Hansen (1999). Another potential issue is that measurements remain ambiguous, and their interrelationships are unknown (Malmi, 2005).

According to Kollie (2017), the theory assumes that it is impossible for different companies to have identical skills, which leads to differences in their financial performance firms. The theory's contribution to the study is that the changing external environment affects the dynamic capabilities of organizations. Quality performance is driven by particular organizational routines for acquiring and processing information, combining customer experiences with business design choices, and also needs the integration of external activities and technologies, such as alliances and the virtual company. As a result, firms that have an advantage in terms of internal competencies are more likely to perform well. This means that success is mostly determined by how

well oil and gas businesses acquire, align, and integrate their skills in order to obtain a competitive edge.

## **2.4 Empirical Review**

The study article by Yinusa, Ismail, Yulia, and Olawale (2019) studied the effect of capital structure on firm performance in Nigeria. The study employed a dynamic panel model to analyze panel data from 115 publicly traded non-financial companies in Nigeria. The paper employed a two-step generalized technique of moment estimation that takes into account the dependent variable's persistence by including its lag value as an explanatory variable in the regression model. The primary findings demonstrate that there is a statistically significant association between capital structure and firm performance, especially when debt financing is used sparingly.

Duarte, Brito, Serio, and Martins (2011) investigated the financial performance impact of operational procedures. They used multiple regression analysis to examine the association between selected operational methods (just in time, quality management, services outsourcing, and ISO certification) and financial success. A random sample of 1,200 businesses based in So Paulo, Brazil, was used. A negative association between outsourcing, profitability, and growth was discovered, bolstering the case for outsourcing. There was also a lesser negative association between ISO certification and growth. Interactions between practices and industries were also significant, but produced inconsistent results, implying that the effect of operational procedures on performance may be situational.

Ajibola, Wisdom, and Qudus (2018) examined the effect of capital structure on the financial performance of Nigerian listed manufacturing enterprises between 2005 and 2014. The panel approach was used. The panel ordinary least squares analysis revealed a substantial positive link between long term debt ratio, total debt ratio, and return on

equity, but no relationship between return on equity and short term debt ratio. Additionally, there was a non-significant link between all capital structure proxies (STD, LTD, and TD) and ROA, indicating that ROE is a more accurate indicator of performance.

Nassar (2016) investigated the effect of capital structure on enterprises' financial performance in Turkey. The study examines the annual financial statements of 136 industrial businesses listed on the Istanbul Stock Exchange between 2005 and 2012. A multivariate regression analysis was used to examine the link between the debt ratio and the ROE, ROA, and EPS variables. The findings indicate that there is a considerable negative link between capital structure and company performance.

Abor (2005) conducted a five-year study on the effect of capital structure on the profitability of listed companies on the Ghana Stock Exchange. The study demonstrated a substantial positive correlation between short-term debt and ROE, indicating that enterprises will earn more while financing their businesses with short-term debt.

Ebaid (2009) examined the relationship between debt levels and financial performance of 64 non-financial Egyptian companies listed on the Egyptian stock exchange. The study discovered a substantial negative link between short-term debt, overall debt, and financial performance as assessed by ROA, but no relationship between financial leverage and ROA when long-term debt was employed as a proxy for financial leverage. Additionally, the study discovered that short-term, long-term, and total debt have no discernible effect on financial performance as measured by ROE and Gross Margin. In general, the findings indicated a modest correlation between capital structure selection and company performance in Egypt.

In Nigeria, Akinyomi (2013) investigated the effect of capital structure on firm performance. The data was derived from financial reports filed by corporations

between 2007 and 2011. Correlation analysis was performed to analyze the data. The findings indicated a significant relationship existed between capital structure and financial performance as measured by ROA and ROE.

Magara (2012) conducted research on the Nairobi Securities Exchange's capital structure and its determinants. The purpose of this study was to ascertain the primary factors of capital structure. Between 2007 and 2011, it was established that there was a positive significant association between the firm's size, tangibility, and growth rate, as well as its degree of leverage. The study excluded macroeconomic variables such as inflation and interest rates.

Mwangi (2010) conducted a study on capital structure and financial performance of enterprises registered on the Nairobi Stock Exchange. He also examined the relationship between capital structure and financial performance. Structured questionnaires were used to collect data. The study discovered that leverage had a substantial positive association with return on equity, liquidity, and return on investment.

Oyedokun, Job-Olatunji, and Sanyaolu (2018) investigated the effect of capital structure on the financial performance of publicly traded manufacturing enterprises in Nigeria from 2005 to 2014. The impact of capital structure on the financial performance of industrial firms traded on the Nigerian stock exchange was examined using a panel technique. Post-facto The data were analyzed using descriptive statistics and regression. The study demonstrates that capital structure has both statistically significant and non-significant effects on performance variables.

Abbadı and Abu-Rub (2012) evaluated the effect of capital structure on financial institution performance in Palestine. They used data from eight banks listed on the Palestine Securities Exchange to create multiple linear regression models. They discovered that there is a positive correlation between leverage and market efficiency.

In a related study, Ali et al. (2012) examined the effect of capital structure on the profitability of Pakistan's petroleum sector while controlling the company's size. They conducted a regression analysis on data from 12 randomly selected organizations during a ten-year period. They discovered that while capital structure has a significant and positive effect on the profitability of the petroleum sector in aggregate, it has no effect on profitability in individual companies due to each company having its own capital structure.

David and Olorunfemi (2010) examined the capital structure and corporate performance of the Nigerian petroleum industry using panel data analysis. They discovered that there is a positive correlation between earnings per share and leverage ratio on the one hand, and between dividend per share and leverage ratio on the other.

Khan (2012), on the other hand, established in a similar study conducted on 36 engineering sector enterprises in Pakistan that financial leverage had a negligible negative association with firm performance. He stated that enterprises in Pakistan's engineering sector rely heavily on short-term loans.

Ogebe et al. (2013) conducted another study in which they examined the impact of capital structure on company performance in Nigeria over a ten-year period.

They employed a fixed effect regression model to confirm the existence of a negative association between company performance and leverage. Additionally, they affirmed the validity of the traditional capital structure hypothesis. Salawu (2007) conducted an empirical study between 1990 and 2004 on the capital structure of selected public companies in Nigeria. The author discovered that leverage has a negative relationship with profitability using panel data analysis. Additionally, he established that tangibility is positively connected with overall debt and long-term debt, but negatively associated with short-term debt. Additionally, he stated that collateral affects all bank borrowing in Nigeria, whether short or long term. Additionally, it was discovered that growth

opportunity is positively associated to both total and short-term debt.

Olokoyo (2013) used fixed-effect estimation, random-effect estimation, and a pooled regression model to assess the influence of leverage on company performance in Nigeria. The author discovered a positive and highly significant association between all leverage metrics and the market performance metric (Tobin's Q). Additionally, the survey uncovered an important fact: Nigerian enterprises are mostly financed by stock capital or through a combination of equity capital and short-term loans. The report recommended that Nigerian enterprises strive to match their strong market success with actual operations that are significant enough to reflect their internal growth and financial performance.

According to a study of the empirical literature, a corporation's optimal capital structure is critical to its success, however these decisions vary each firm. According to some writers, there is a positive correlation between capital structure and firm performance, whereas others claim there is a negative correlation. The necessity for a study focusing on Nigeria's petroleum businesses is fueled by a scarcity of literature in this field.

# **CHAPTER THREE**

## **METHODOLOGY**

### **3.1 Introduction**

The purpose of this study is to investigate the impact of capital structure on the performance of Oil and Gas firms in Nigeria. This chapter deals with the research design, the population and sample of the study, sources of data, theoretical framework and model specification as well as method of data analysis.

### **3.2 Research Design**

The research design adopted in this study is the Ex-Post-facto research design, which is very applicable in the management and social sciences. In an Ex-Post-facto research which involves secondary data in which responses in the nature of a factor and its effects on individuals are being studied, the researcher does not have the ability or opportunity to vary or manipulate the independent variables. This inability to manipulate the independent variables stem from the fact that the variables are inherently non-manipulable or because their manifestations have already occurred (Agbonifoh & Yomere, 1999).

### **3.3 The Population and Sample of the Study**

The population consists of all measurement and numbers of the observation relating to each of the variables of the study. Therefore, all the Oil and Gas companies operating in Nigeria constitute the population.

The sample of the study comprises of oil and gas companies quoted on the Nigerian Exchange Limited that have debts in their capital structure within the period of 2015-2020 (6 years).

### **3.4 Sources of Data**

The time based data adopted is secondary data since they are obtained from already existing publications which constitutes secondary source of information. However, the sources of this research are from the NSE fact book 2021 and annual financial reports of the purposefully selected quoted Oil and Gas companies on Nigerian Exchange Limited (NGX).

### **3.5 Theoretical Framework and Model Specification**

The theoretical framework of the model will be based on the pecking order theory which postulates that, growing firms usually search out for funds to maintain the growth, because as they are expanding, there is the tendency for them to exhaust all their internally generated funds.

In specifying the model, we shall have thus:

$$ROE = f(STDR, LTDR, TDR, TDER)$$

The function above is expressed in the form below;

$$ROE = \beta_0 + \beta_1STDR + \beta_2LTDR + \beta_3TDR + \beta_4TDER + U_i$$

Where;

ROE = Return on equity

STDR = Short term debt ratio

LTDR = Long term debt ratio

TDR= Total debt ratio

TDER=Total debt to equity ratio

$\beta_0$ ,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ , and  $\beta_4$ , are Parameters to be estimated.

$U_i$  = Error term

## **3.6 Measurement and Operationalization of Variables**

### **3.6.1 Dependent Variable**

Performance of Oil and Gas firms was chosen as the dependent variable in the course of this study. Return on Equity (ROE) will be used as a measure of the dependent variable Oil and Gas firms' performance.

### **3.6.2 Predictors/Explanatory/Independent Variables**

Short-Term Debt ratio (STDR), Long-term debt ratio (LTDR), Total debt ratio (TDR) and Total debt to equity ratio (TDER) were chosen as the explanatory variables. Short-Term Debt ratio (STDR) is measured by dividing the Oil and Gas Company's current assets by its current liabilities; Long-Term Debt ratio (LTDR) is measured by dividing long term debt by total assets; Total debt ratio (TDR) is measured by dividing total debt by total assets; and Total debt to equity ratio (TDER) is measured by dividing the Oil and Gas company's total liabilities by its shareholder equity.

### **3.7 Method of Data Analysis**

In analyzing the impact of capital structure on the performance of Oil and Gas firms in Nigeria, the panel data regression analysis will be adopted. This is because the study will combine both time series and cross sectional data.

However, based on variations in the capital structure of the oil and gas companies under review, the intercept of each firm is said to be a random component. Therefore, the random effect model of the panel data regression analysis will be adopted in estimating the impact of capital structure on the performance of Oil and Gas firms in Nigeria. The Random Effect technique is suitable in cases where the (random) intercept of each cross-sectional unit is uncorrelated with the regressors.

## **CHAPTER FOUR**

# **DATA PRESENTATION, ANALYSES AND DISCUSSION OF FINDINGS**

### **4.1 Introduction**

This study examines the impact of capital structure variables on the financial performance of oil and gas firms in Nigeria. To achieve the objectives of the study, it employed a long period panel of six (6) years (2015 – 2020) and a relatively longer

cross sectional unit panel of fifteen (15) oil and gas companies quoted on the Nigerian Exchange Limited (NGX). See the list of oil and gas firms whose data were analyzed in the appendix section.

The variables of interest and for which data were obtained from the companies were: return on equity (ROE) (the proxy for financial performance- the dependent variable of the study), short term debt ratio (STDR) (defined as short term debts divided by total liabilities), long term debt ratio (LTDR) (defined as long term debts divided by total liabilities), total debt ratio (TDR) (sum of short term and long term debts divided by capital employed), total debts to equity ratio (TDER) (total debts divided by owners' equity). Return on equity (ROE) (defined as profit after tax divided by owners' equity) is the proxy for bank financial performance and the dependent variable of the study. All other variables are exogenous or explanatory.

## **4.2 Presentation of Results on Capital Structure and Financial Performance of Oil and Gas Firms in Nigeria**

The estimation results presented and analyzed are descriptive statistics, correlation matrix, unit root test, Hausman test and panel least square. The unit root result is conducted because of the output of the descriptive statistics. The correlation results examine the relationship between the variables used in the study; the direction of relationship and the significance of those relationships are also examined. It also provides some information on multicollinearity of the series used.

### **4.2.1 Descriptive Statistics on Capital Structure and Financial Performance of Oil and Gas Firms in Nigeria**

The result of the descriptive statistics used for describing the characteristics of the data and ultimately the normality status of each series is presented in table 4.1. The results of the mean which shows the average value of the variables revealed that ROE (0.152185) being the lowest mean value, STDR (0.422551), LTDR (1.326531), (0.86) and TDER (0.20) have relatively low mean values.

The average return on equity by the oil and gas firms examined is 0.152 for the years under examination. The average short term debt ratio, long term debt ratio, total debt ratio and total debt to equity ratio of the sampled firms for the period under review are 0.691, 1.327, 0.855 and 0.201 respectively. The results of the standard deviation showed that all the variables except LTDR (1.072) had relatively low standard

deviation which implies that they were all found to be oscillating around the mean point while LTDR exhibited comparative disparity from the mean point. However, the variable TDR (0.03) had the least deviation from the mean point. The results of the Skewness showed that only the variable TDR is negatively skewed toward the origin. The other variables ROE, STDR, LTDR and TDR showed positive skewness. Only LTDR and STDR was found to pass the test for the kurtosis. The variables TDER (20.96) and ROE (86.18) is said to be leptokurtic because they all had a kurtosis value approximately greater than 3 which implies that they produce extreme outliers. The other variables TDR and LTDR depicted a platykurtic kurtosis which implies that the distribution is flat-topped producing fewer and lesser extreme outliers.

The Jarque-Bera statistic and its probability revealed that ROE (Jarque-Bera=29559.32 & Probability = 0.0000 < 0.05), STDR (Jarque-Bera=17.11486 & Probability = 0.000192 < 0.05), LTDR (Jarque-Bera=6.627560 & Probability = 0.036378 < 0.05), TDR (Jarque-Bera=18.12159 & Probability = 0.000116 < 0.05) and TDER (Jarque-Bera=1821.953 & Probability = 0.00000 < 0.05) fail the test of normality at 5% level of statistical significance. In order not to have spurious regression results, we have to examine the stationarity property of the series by conducting a unit root test.

**Table 4.1: Descriptive Statistics with Common Sample on Capital Structure and Financial Performance of Oil and Gas Firms in Nigeria**

	ROE	STDR	LTDR	TDR	TDER
Mean	0.152185	0.691631	1.326531	0.855454	0.200580
Median	0.105865	0.643000	1.000000	0.853000	0.104020
Maximum	4.370265	1.000000	3.000000	0.882000	4.367565

Minimum	-0.462381	0.500000	0.000000	0.824000	-2.656842
Std. Dev.	0.442325	0.148648	1.072385	0.026788	0.631336
Skewness	8.952010	0.886624	0.179085	-0.168042	1.863559
Kurtosis	86.17730	2.876484	1.777384	1.202064	20.95742
Jarque-Bera Probability	29559.32 0.000000	17.11486 0.000192	6.627560 0.036378	18.12159 0.000116	1821.953 0.000000
Sum	14.91412	89.91200	130.0000	111.2090	26.07534
Sum Sq. Dev.	18.97822	2.850410	111.5510	0.092568	51.41744
Observations	90	90	90	90	90

Source: Author's Estimation from EView 10, 2022.

## 4.2.2 Correlation Analysis on Capital Structure and Financial Performance of Oil and Gas Firms in Nigeria

The correlation matrix is presented in Table 4.2. Essentially, the result reveals the pairwise relationship among the variables used in the study. Principally, Correlation analysis is used to examine the strength (strong or weak) and direction (positive or negative) of relationship that occurs between two or more variables. Thus, the Pearson Correlation coefficient was adopted to explore the relationship between

For all intents and purposes, Correlation analysis is defined as a measure of the extent and direction of the relationship existing between two or more variables. The result of the analysis produces a coefficient oscillating between -1 and 1 such that, +1 indicates a perfect positive correlation between the variables under consideration, -1 indicates a perfect negative correlation between the variables, while 0 signifies no relationship between the variables under investigation.

A key point to note about all the series is that, an appreciable improvement in the level of short-term debt ratio, long-term debt ratio, total debt ratio and debt to equity ratio would not only promote bank performance (ROE), but also reveal the strength and performances in the long run. Interestingly, the result revealed that ROE maintained a negative correlation with short-term debt ratio (-0.13 or -13%), long-

term debt ratio (-0.25 or -25%), total debt ratio (-0.11 or -11%) and debt to equity ratio (-0.003 or -0.3%). The relationship between and among the independent variables shows that some variables are not correlated with others which minimize occasion of serial or autocorrelation.

**Table 4.2: Correlation Results on Capital Structure and Financial Performance of Oil and Gas Firms in Nigeria**

	ROE	STDR	LTDR	TDR	TDER
ROE	1				
STDR	-0.133990	1			
LTDR	-0.249289	0.408009	1		
TDR	-0.111442	0.591268	0.274426	1	
TDER	-0.003946	0.244281	0.047665	0.037060	1

Source: Author's Estimation from EView 10, 2022.

### **4.2.3 Unit Root Analysis on Capital Structure and Financial Performance of Oil and Gas Firms in Nigeria**

The results for unit root test presented in table 4.3 shows results for Levin, Lin & Chu t unit root, ADF – Fisher unit root, and PP - Fisher unit root. The results are examined

using 5% level of significance. None of the series was found to be stationary at level. All the variables were found to be stationary at first difference. Giving that the variables are all stationary at some level of difference not more than second difference, we can proceed with the data for conducting estimations that will be used to test the hypotheses of the study.

**Table 4.3: Unit Root Result on Series for Capital Structure and Financial Performance of Oil and Gas Firms in Nigeria**

Variable (Series)	Levin, Lin & Chu t*	Prob.	ADF - Fisher Chi-square	Prob.	PP - Fisher Chi-square	Prob.	Remark
ROE	1.46833	0.9290	19.5593	0.8800	37.3525	0.1113	
D(ROE)	- 6.96806	0.0000	62.4571	0.0001	113.472	0.0000	I(1)
STDR	- 2.27275	0.0115	23.0253	0.6315	26.3432	0.4444	
D(STDR)	- 8.73335	0.0000	82.6384	0.0000	151.988	0.0000	I(1)
LTDR	- 1.26325	0.1032	26.8017	0.3138	32.8340	0.1076	
D(LTDR)	- 8.73335	0.0000	82.6384	0.0000	151.988	0.0000	I(1)
TDR	- 1.26325	0.1032	26.8017	0.3138	32.8340	0.1076	
D(TDR)	- 9.75385	0.0000	74.5093	0.0000	110.548	0.0000	I(1)
TDER	- 2.07385	0.0190	16.9116	0.7682	4.87466	1.0000	
D(TDER)	- 8.12239	0.0000	66.1726	0.0000	116.407	0.0000	I(1)

**Source: Author's Estimation from EView 10, 2022.**

#### **4.2.4 Regression Analysis on Capital Structure and Financial Performance of Oil and Gas Firms in Nigeria**

In choosing which of the regression effect to base the test of our hypotheses and draw our findings for the study, we conduct the Hausman test. Using the 5% level of statistical significance, the probability value of the Hausman test is 0.4437 which is greater than 5% implying that the fixed effect panel least square is more appropriate for testing the hypotheses of the study. The result of the Hausman test is presented in table 4.4.

**Table 4.4: Hausman Test for Capital Structure and Financial Performance of Oil and Gas Firms in Nigeria**

Correlated Random Effects - Hausman Test  
Equation: Untitled  
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	11.415160	5	0.4437

\*\* WARNING: estimated cross-section random effects variance is zero.

Source: Author's Estimation from EView 10, 2022.

The study uses the panel least squares (PLS) multiple regression analysis to exploit the cross sectional effects of the data set.

##### **4.2.4.1 Panel Equation and Analysis of Data**

Our simple panel equation of the study predicting ROE from the independent variables is given by equation 4.1 below:

$$ROE_{it} = \beta_0 + \beta_1STDR_{it} + \beta_2LTDR_{it} + \beta_3TDR_{it} + \beta_4TDER_{it} + V_{it} \dots \dots \dots 4.1$$

Where,  $i = 1, \dots, 15$  with 15, the number of quoted oil and gas firms, the cross-sectional dimension;

$T=1, \dots, 6$ , with 6, the number of years, the temporal dimension; 2015 to 2020 in this project work.

$V_{it}$  = the error terms.

For example,  $ROE_{it}$  can be interpreted as ‘the ROE of firm  $i$  in year  $t$ ’.

To analyze the relationships between financial performance (proxied by return on equity, ROE) and the exogenous corporate structure decision variables among the quoted oil and gas companies in Nigeria, we regressed the dependent variable (ROE) on the independent variables – short term debt ratio (STDR), long term debt ratio (LTDR), total debt ratio (TDR), and total debt to equity ratio (TDER) in a panel least squares regression analysis using the random effect (FE) estimator.

The results are contained on Table 4.5 below:

**Table 4.5: Panel Least Squares (Cross-section Random Effects) Estimation**

Dependent Variable	Variables	Coefficient	t-statistic	Probability
ROE	C	15.7452	183.2933	0.0000

	LTDR	0.1433	3.0806	0.0026*
	STDR	0.0016	1.2113	0.2283
	TDR	0.1252	2.5962	0.0107*
	TDER	-0.0061	-0.0291	0.9768
<b>R<sup>2</sup></b>	0.83			
<b>Adj. R<sup>2</sup></b>	0.81			
<b>F-statistic</b>	35.4563			
<b>Pro (F-statistic)</b>	0.000000			
<b>Durbin-Watson stat</b>	1.95895			

KEY: \* Statistically significant at 1% level.

Source: Data analysis by Student using EViews 10.0 2022.

From table 4.5 above, it can be seen that the R<sup>2</sup> statistic is 0.83 while the adjusted R<sup>2</sup> statistic is 0.81. This is an indication that 81% of systematic variation in return on equity (ROE) is explained by changes in the explanatory variables of the model. Similarly, the F-statistic, 35.46 is greater than the theoretical value of 1.0 and has a probability value of 0.0000. These statistics indicate that our model satisfies the overall goodness of fit statistical test and that a linear relationship exists between the dependent and independent variables of the model.

The Durbin-Watson statistic of 1.96 which is approximately 2.0 is an indication of the absence of serial correlation among the independent variables of the model. Thus, the regression is non-spurious and the results are reliable. Also, the t-values are generally of very low values while the R<sup>2</sup> statistic is not too high. These suggest that there is no problem of heteroskedasticity in the model; whose presence destroys t-values and R<sup>2</sup>. Thus, our econometric model meets both statistical and diagnostic criteria and represents a good and consistent estimator and can be useful for policy purpose.

Thus, the panel least squares (PLS) regression equation in a six-year range, 2015-2020, for fifteen cross sections of oil and gas companies in a balanced panel observation of 90 is as specified below:

$$\text{ROE} = 15.7452 + 0.1433 \text{ LTDR} + 0.0016 \text{ STDR} + 0.1252 \text{ TDR} - 0.0061 \text{ TDER} + v;$$

(3.0806)	(1.2113)	(2.5962)	(-0.0291)
----------	----------	----------	-----------

### 4.3 Test of Hypotheses

The hypotheses that are stated in the chapter one of the study are tested in this section using 5% level of statistical significance. The probability values for the test of hypotheses are derived from the regression result presented in table 4.5.

#### Hypothesis One

It had earlier been stated that short-term debt ratio does not have a significant relationship with financial performance of oil and gas firms in Nigeria. The regression results in table 4.5 revealed that we reject the null hypothesis that short-term debt ratio does not have a significant relationship with financial performance of oil and gas firms in Nigeria (STDR Prob. 0.0026 < 0.05).

#### Hypothesis Two

Also, it was stated that long-term debt ratio does not have a significant relationship with financial performance of oil and gas firms in Nigeria. The results of the regression revealed that we accept the null hypothesis long-term debt ratio does not have a significant relationship with the financial performance of oil and gas firms in Nigeria (LTDR Prob. 0.2283 > 0.05).

#### Hypothesis Three

It was also stated in the third hypothesis that there is no significant relationship between total debt ratio and the financial performance of oil and gas firms in Nigeria. The regression result revealed that we reject the null hypothesis that there is no significant relationship between total debt ratio and financial performance of oil and gas firms in Nigeria (TDR Prob. 0.0107 < 0.05).

#### Hypothesis Four

It was stated that there is no significant relationship between total debt to equity ratio and financial performance of oil and gas firms in Nigeria. The regression result revealed that we accept the null hypothesis that there is no significant relationship between total debt to equity ratio and financial performance of oil and gas firms in Nigeria (TDER Prob.  $0.9768 > 0.05$ ).

### **4.3 Interpretation of Results and Discussion of Findings**

The regression analysis shows that long term debt ratio (LTDR), short term debt ratio (STDR) and total debt ratio (TDR) are positively related to return on equity (ROE) in accordance with theoretical expectations. However, total debt-equity ratio (TDER) is negatively related to return on equity.

The above directional relationships suggest that the higher the long term debt ratio (LTDR), short term debt ratio (STDR) and total debt ratio (TDR), the higher is the financial performance of the oil and gas companies as indicated by ROE. Thus, a unit increase in each of LTDR, STDR and TDR is expected to lead to about 14%, 2% and 13% increase respectively in oil and gas firms' financial performance (ROE). Contrariwise, the higher is total debt-equity ratio (TDER), the lower is financial performance of the oil and gas firms. Therefore, a unit increase in TDER will lead to 6% decrease in their financial performance.

More importantly, as the analysis also shows, the relationship between long term debt ratio (LTDR) and financial performance (ROE) is statistically significant (t-value is 3.08 while p-value is 0.0026). This is an indication that long term debts in the capital structure of oil and gas companies are huge enough to have significant effect on their

financial performance. Similarly, the relationship between total debt ratio (TDR) and financial performance is statistically significant at the 1% level of significance. Hence, these two variables have positive and significant impact on oil and gas firms' financial performance during the period of study. However, the relationships between short term debt ratio (STDTR), total debt-equity ratio (TDER) and financial performance are not statistically significant (t-values are +1.21 and -0.03 while p-values are 0.2283 and 0.9768). Hence, short term debt ratio (STDTR) and total debt-equity ratio, are not significant determinants of financial performance.

In conclusion, therefore, the study shows that long term debt is the single most important capital structure variable that has significant influence on the financial performance (ROE) of oil and gas companies in Nigeria, at least within the period under study. These findings are in accordance with theory and previous studies.

## CHAPTER FIVE

### SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Summary of Findings

This work examined the influence of capital structure and financial performance of oil and gas companies in Nigeria. The study finds that:

1. Long term debt (LTDR), short term debt (STDR), and total debts (TDR) are positively related to financial performance of oil and gas companies (return on equity (ROE)).
2. Long term debt ratio and total debt ratio (that is leverage) is statistically related to oil and gas companies' financial performance (ROE). This is an indication that oil and gas firms are highly leveraged and hence long term debt is the major capital structure variable that has significant influence on their financial performance.
3. In addition, short term debt ratio and total-debt equity ratio have no significant influence on oil and gas firms' financial performance.
4. While, short debt has positive influence on oil and gas companies' financial performance, total debt-equity ratio has a negative influence on performance. Hence, long term debt rather than short term debt and debt-

equity ratio is the significant determinant of financial performance (ROE) of oil and gas companies in Nigeria.

## **5.2 Conclusion**

The study concludes that long term debt or leverage in the capital structure of oil and gas companies is a significant determinant of financial performance (ROE). This is mainly because, oil and gas companies unlike financial institutions, such as banks, are highly leveraged; hence capital structure has significant positive effect on their (oil and gas companies) financial performance in Nigeria.

## **5.3 Recommendations**

Based on the findings of this study, the following policy recommendations are made:

- i. The managers of the nation's oil and gas companies should strive to boost return to equity owners by increasing their use of debts, particularly long term debts in their capital structure in order to promote the growth of their corporate organizations.
- ii. Therefore, reasonable use of long-term debts, as needed to finance expansion of oil and gas infrastructures and other investments, that guarantee higher prospects of future growth; and minimize the financial risk of default and possible bankruptcy is highly recommended.

## **REFERENCES**

## **APPENDIX**