IMPACT OF CAPITAL STRUCTURE ON THE PERFORMANCE OF DEPOSIT

MONEY BANKS IN NIGERIA

BY

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DECLARATION

1

I hereby declare that this dissertation is my original work and has not been previously presented wholly or in part for the award of other degrees.

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Signature…………………………… Date……………………….

CERTIFICATION

We the undersigned, Certify that this research dissertation titled Impact of Capital Structure on the Performance of Deposit Money Banks in Nigeria is the original work of the candidate and has been fully supervised, and found worthy of acceptance in partial fulfillment of the award of Master of Science (M.Sc) Degree in Banking and Finance.

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DEDICATION

This Dissertation is dedicated to Almighty God who gave me the ability to accomplish this research work.

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ABSTRACT

This research seeks to examine the Impact of Capital Structure on the Performance of Deposit Money Banks in Nigeria. The study spanned from 2000-2016 which is Seventeen years study. The independent variables used for the study are Bonds, Preference Shares, Ordinary shares and Debenture while the dependent variable is the aggregate Profit after Tax of all Deposit Money Banks in Nigeria. Time series data used were sourced from CBN Statistical Bulletin 2016. The study applied E-view 7.0 version and the estimation technique applied are Ordinary Least Square (OLS), Diagnostic Test, Serial Correlation Test, Stability Test, Granger Causality and Johansen Co-integration Test. The result revealed that the whole independent variables have 99% positive impact to Profit After Tax of Deposit Money Banks in Nigeria, more so (Adjusted R^2) is 0.98 which suggest that 98% of the independent variables could be explained by the changes in the dependent variable and the remaining 2% could not be explained due to some error in the financial system. The Durbin Watson test is 2.155, which revealed no presence of Serial Correlation and it is moderate for prediction. The p-value of the F-stat is $0.000 < 0.05$. We reject H_0 and conclude that Capital Structure have significant impact on the Performance of Deposit Money Banks in Nigeria. The study recommended that management of Nigerian banks' should consider the use of more debt in their capital structure mix as this will reduce the overall cost of capital as a result of its tax advantage. Moreover to increase bank financial performance, also management should ensure they continue to improve the level of Preference Shares, ordinary shares and debenture in order to mitigate against future financial liquidation. The study contributed to knowledge by providing empirical evidence which will assist management of firms in making sound decision on Capital Structure and adjusting or balancing debt to equity ratio to maintain the optimal level. Also the good understanding of the Impact of Capital Structure individually will enhance sound capital structure decisions which will enhance the performance of Deposit Money Banks in Nigeria.

TABLE OF CONTENT

CHAPTER FOUR: RESULTS AND DISCUSSION

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

List of Tables

List of Figures

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Capital Structure decision can be regarded as the combination of debt and equity that a bank uses to finance its business (Damodaran, 2013), its importance is that it is tightly related to the ability of banks to fulfil the goals of various stakeholders. Since the famous proposition of Modigliani and Miller (2012) that, in perfect capital markets, capital structure choice is irrelevant to firm value, considerable research has been undertaken to identify the nature of market frictions likely to affect firm value. However, such research is typically restricted to non-banks. However, when firms make their financing decisions to obtain the optimal capital structure, they consider the benefits of tax advantages and incentives versus the cost of default. Thus the main arguments for using debt to finance company activities rely on its relative cost. Moreover, issuing debt involves lower administrative costs as it does not necessarily require an underwriter (Pike and Neale, 2014). Kester (2015) differentiated between capital structure and financial structure by affirming that the various means used to raise funds represent the firm's financial structure, while the capital structure represents the proportionate relationship between long-term debt and equity capital. Therefore, a bank's capital structure simply refers to the combination of long-term debt and equity financing.

The theory of capital structure is an important reference theory and perhaps, one of the most puzzling issues in corporate finance. The determination of optimal capital structure which maximizes firm's value has frustrated theoretician for decades (Omojefe, 2014). The early works made numerous assumptions in other to simplify the problem and assumed that both the cost of

debt and cost of equity were independent of capital structure and that the relevant figure for consideration was the net income of the firm (Osaze, 2015). However a closer looks suggests that the cost of debt and the cost of equity are important and relevant figure for consideration.

Capital structure has been a major issue in financing economic transactions ever since Modigliani and Miller stated in 1958 that given frictionless markets, homogeneous expectations; capital structure decision of the firm is irrelevant. By relaxing the assumptions and analysing their effects, theories seeks to determine whether optimal capital structures exist or not. The relationship between capital structure and firms value has been extensively investigated in the past few decades (Stohs and Maver, 2014).

However, whether or not an optimal capital structure exists in relation to firm value, is one of the most important and complex issues in corporate finance.

The corporate sector in the country is characterized by a large number of firms operating in a largely deregulated and increasingly competitive environment.Since1987; financial liberalization resulting from the Structural Adjustment Program changed the operating environment of firms (Ozkan, 2016). The macroeconomic environment has not been conducive for business while both monetary and fiscal policies of government have not been stable. Following the Structural Adjustment Program, lending rate rose to a high side from 1.5 percent in 1980 to a peak of 29.8 percent in 1992; but it declined to 16.9 percent in 2006(Oladeji&Olokoye, 2014). The high interest rate implies that costs of borrowing went up in organized financial market, thus increased the cost of operations. The Structural Adjustment Program (SAP) came with its conditions, policies that liberalized and opened up the Nigerian economy to the outside world even when the nation's domestic produce cannot stand in equal comparison to international commodities, causing unfavourable balance of payment as domestic demand for foreign goods increased also led to the high volatility of the exchange rate system thereby rendering business in

Nigeria uncompetitive, especially given high cost of borrowing and massive depreciation of Naira, which culminated to increasing rate of Inflation in Nigeria (Patrick, Joseph &Kemi, 2013).

1.2   Statement of the problem

There are paucity of studies generally on the platform of this topic which has effect on the performance of most corporate bodies even in well-developed economiesand other growing economies and in Nigeria in particular. In much anticipation of the researcher, there is little literature yet on this topic, the impact of Capital Structure and effects on corporate performance in Nigeria context. Rather, there are related topics on Determinants of Capital Structure and others like Capital Structure and Firm Performance. Thisis one- challenging issue that is facing the bank's choice of Capital Structure mix since the bank has the choice between debt and equityfinancing, the issue of what is the best ratio has been an issue of debate for several years but that has remained still unsettled in area of corporate finance (Nwankwo, 2014).

The studies on the Impact of Capital Structure on performance of Deposit money banks are still scanty in the context of developed and developing economies. The few studies available in Capital Structure have not investigated the impact of Capital Structure on Performance of Deposit Money Banks but rather have their focus on the decomposed Capital Structure into short term and long term with their summation into total debt. This study aims at contributing in filling this gap by expanding the scope both in period covered and the number of banks included in the data set. Since banks has the choice of using debt or equity financing, there is need to explore the effect of this mix on corporate performance. OladejiandOlokoye (2014) stated that the choice of Deposit Money Banks deciding on the financing mix in financing for assets and operations through balancing of debt and equity is a serious financing decision. There is great need to

investigate how the determinants of Bank's financing mix affect the corporate performance of Deposit Money Banks in Nigeria.

1.3 Research Questions

This study has deliberated on the issues affecting capital structures and deposit money banks which has further led to the following research questions to be asked below;

1. What is the effect of Bonds on Profit after Tax of Deposit Money Banks in Nigeria?

2. DoesPreference Shareshave any impact on the Profit After Tax of Deposit Money Banks in Nigeria?

3. How doesOrdinary Share affect Profit after Tax of Deposit Money Banks in Nigeria?

4. To what extent doesDebenture affectProfit after Tax of Deposit Money Banks in Nigeria?

1.4 Objective of the study

The main objective of the study is to ascertain the Impact of Capital Structure on the Performance of Deposit Money Banks in Nigeria. The specific objectives are:

1. To determine if Bonds have effect on Profit after Tax (PAT) ofDeposit Money Banks in Nigeria.

2. To establish if Preference Shareshaveimpact onProfit after Tax (PAT) of Deposit Money Banks in Nigeria.

3. To ascertain if Ordinary Shares have impact on Profit after Tax (PAT) of Deposit Money Banks in Nigeria.

4. To establish if Debenture have effect on Profit after Tax (PAT) of Deposit Money Banks in Nigeria.

1.5 Research Hypotheses

The following hypotheses are formulated from the research questions and objectives in answeringthe major aim of the study and are stated as thus:

Ho_1: Bonds do not have effect on Profit after Tax (PAT) of Deposit Money Banks in Nigeria.

Ho_2: Preference Shares do not have impact on Profit after Tax (PAT) of Deposit Money Banks in Nigeria.

Ho_3: Ordinary Shares do not have impact onProfit after Tax (PAT) of Deposit Money Banks in Nigeria.

Ho_4: Debenture do not effect on Profit after Tax (PAT) of Deposit Money Banks in Nigeria.

1.6 Scope of the study

The location of the research is targeted at the Nigerian economy when most of the statement of problem, research questions, hypotheses and objectives is centered upon. This study focuses on the Impact of Capital Structure on the Performance of Deposit Money Banks in Nigeria within the period 2000-2016, which is seventeen years of a time series frame in which a secondary data typical method will be used as a means for sourcing data. For the purpose of this study, all quoted Deposit Money Banks in Nigeria were used. These include: First Bank of Nigeria, Zenith Bank, Guaranty Trust Bank, Fidelity Bank, Access Bank, Diamond Bank, Eco Bank, United Bank for Africa, Skye Bank,Stanbic IBTC Bank, First City Monument Bank, Union Bank of Nigeria, Citi Bank, Heritage Bank, Keystone Bank,Standard Chartered Bank, Sterling Bank, Unity Bank and Wema Bank.All the banks used are located in Lagos State, Nigeria. The data

employed for the study will be generated from the financial statements of the stated banks and CBN Statistical bulletin 2016.

1.7   Significance of the study

There is no single corporate which can finance its activities with the use of equity alone. However, many companies who are ignorant or have little knowledge of the numerous benefits of debt financing tend to be self-sufficient by using equity or minimizing as much as possible the amount of debt in their capital structure. To some organizations, a Capital Structure is merely a theoretical concept and therefore does not demand or worth formal planning and to some others, its mix does not matter as long as the company makes profit or is profitable overtime. This investigation would change all of that.

The outcome of this research builds on previous works of researchers on the tax shield benefits of debts financing and its effect on the earning per share and share price. Also, its contribution to the field of research on Capital Structure in Nigeria Petroleum Companies is immense as it clarifies the ambiguity in the use of EPS as a measure of performance.

The following personswill benefit greatly from this research investigation:

i.   Management: it is be of immense benefit to management of Deposit Money Banks as it points out the desirability of both debt and equity financing at various economic situations. Management is responsible for making investigation and financial decisions in an organization. Therefore the knowledge of these findings will better equip them to make better decision.

ii.   General Public: The stakeholders of any organisation comes from the public and the operation of Deposit Money Banks have direct effect on members of the public especially those intending to invest in banking sector, hence the need for them to be aware of the capital structure decision making.

iii.   Business practitioners and investors: This group comprises of the equity investors, bondholders and all other persons who invested in the Various Deposit Money Banks. They need to understand the effect of their decision.

iv.   Students and researchers: This research further contributes to the on-going debate on the issue of capital structure.

Finally, the research is valuable and useful to students and researchers in the field of finance. In all, its importance cannot be overemphasized but sufficient to say these few.

1.8   Limitations of the study

This study was supposed to cover all variables used as indicators of the Capital Structureand Performance of Deposit Money Banks in Nigeria as in regards to collection of adequate data on the interactive effect and relationship of the different variables between Capital Structure and Deposit Money Banks. The intended scope cannot, however, be attained due to the fact that some variables do not have sufficient data that could make significant impact, more also, the research topic limited its scope to the Performance of Deposit Money Bankswhich is only within banking sector in the Nigerian economy. The objectives were centred in between the capital structure of Deposit Money Bank and the variables used in capturing the Capital Structuresare limited to the Capital Structures indicators being used by the Deposit Money Banks in the Nigerian Stock Exchange (NSE). These variables are Bonds, Ordinary shares, Debenture and Preference shares held by each of these Deposit Money Banks. Also, to value the performance of these deposit money banks the Profit after Tax is limited in measuring the growth of these deposit money banks. Although, there are lots of variables to be used in capturing these two sections but for the course of this study, it will concentrate on these variables for just a period of seventeen years.

1.9 Definition of terms

The following are the major terms used in the course of this study and are defined as thus;

Bond: It is seen as long term fund of capital structure in which banks offer to the public as an avenue of generating capital for such banks that needs to expand their business activities.

Capital structure: A mix of debt, preferred stock, and common stock with which the firm plans to finance its investments.

Debenture: It is a type of debt instrument that is not secured by physical assets or collateral.

Debt: They are regarded as firms' borrowings in which it is divided into short and long term debts that are also part of the capital structure of companies.

Equity: It refers to the contributed capital; money originally invested in the business in exchange for shares of stock.

Ordinary Shares: This is a type of fund that is part of the capital structure of a firm in which it is financed out-source through the sales of the firm's equity right to private individuals or public.

PreferenceShares: More commonly referred to as preferred stock, are shares of a company's stock with dividends that are paid out to shareholders before common stock dividends are issued. If the company enters bankruptcy, the shareholders with preferred stock are entitled to be paid from company assets first. Most preference shares have a fixed dividend, while common stocks generally do not. Preferred stock shareholders also typically do not hold any voting rights, but common shareholders usually do.

Profit after Tax (PAT): The gain after deducting all expenses from the total sales made by firms is called the profit and after tax rate value has also been deducted from the profit; it is then called profit after tax which measures the performance of firms.

1.10   Organization of the study

This study is structured into five chapters;

Chapter one is the introduction chapter, which deals with the general overview of the study and in addition, provides brief insight of Capital Structure on the Performance of Deposit Money Banks in Nigeria. Statement of problems, objectives, research questions and hypotheses were structured after the overview of the study. Definition of terms, Scope, Significance and Limitation of the study work were all included in this chapter.

Chapter two discussed the related literatures of importance were introduced into this chapter. This chapter is further organized into several relevant review of all the literature relevant to the research theme. Such sub-headings reflect the following:

  i.   Conceptual review

  ii.   Current literature based on the relevant variables adopted for the model of theory.

  iii.   Theoretical framework and;

  iv.   Empirical literatures of relevant research papers by authors and scholars associated with this research topic.

Chapter three discusses with a brief introduction of the Research Methodology, type of research design to be adopted, area of study, Population and Sample size, Sample and Sampling techniques, instruments used for data collection, Validation of the instruments, and method of data collection, Model Specification and data analysis techniques.

Chapter four deals with the Results and Discussion of the data presented, summary of the statistical computation result and its interpretation, the test of the relevant hypotheses specified for the research study.

Chapter five ties it all together in the light of discussion of the findings, conclusion, recommendations, contributions to knowledge and suggested areas for further studies.

CHAPTER TWO

LITERATURE REVIEW

2.1   Conceptual Framework

2.1.1   Overview of Deposit Money Banks in Nigeria

According to Harward (2014), the current reforms, which started in 2004 with the banking consolidation programme, were driven by the need to strengthen the banking sector and make it more relevant in the long run quest for economic development.

According to Imala (2014), beyond the recapitalisation of banks, the regulatory reforms also focused on:

 i.   Risk and rule-based regulatory framework;

 ii.   Zero tolerance in regulatory framework in data/information rendition/reporting and infractions;

 iii.   Strict enforcement of corporate governance principles in banking;

 iv.   Expeditious process for rendering of returns by banks and other financial institutions through E-fass, an automated solution installed by the CBN;

 v.   Revision and updating of relevant laws for effective corporate governance and ensuring greater transparency and accountability in the implementation of banking laws and regulations, as well as;

 vi.   The introduction of a flexible interest rate-based framework that made the Monetary Policy Rate the operating target. The new framework has enabled the CBN to be proactive in countering inflationary pressures. The corridor regime has helped to check

wide fluctuations in the interbank rates and also engendered orderly development of the money market and payment system reforms, among others.

2.1.2 CBN Interventions in the Real Sector of the Economy

In line with its development mandate, the Central Bank of Nigeria has, over the years, identified key priority sectors and developed Special Schemes and Funds for tailored interventions to support and promote growth of the sectors. Some of the key interventions are:

N200 Billion Small and Medium Enterprises Credit Guarantee Scheme (SMECGS). The purpose of the (SMECGS) is to fast track the development of the manufacturing SME sector of the Nigerian economy by providing guarantee for credit from banks to SMEs and manufacturers.

Banking System Integration

According to Soludo C. C. (2011), the CBN has taken steps to integrate the banking system into the global best practice in financial reporting and disclosure through the adoption of the International Financial Reporting Standards (IFRS) in the Nigerian banking sector by end-2010. This is aimed at enhancing market discipline and reduction of uncertainties, which limits the risk of unwarranted contagion.

New Banking Model

The Universal Banking (UB) model adopted in 2001 allowed banks to diversify into non-bank financial businesses. Following the banking consolidation programme, banks became awash with capital which lured operators into equity and venture capital funds to the detriment of core

banking practices. To address the observed challenges, the Central Bank reviewed the UB model, directing banks to focus on core banking business only. Under the new model, licensed banks in the country are authorised to undertake the following type of businesses:

i. Commercial banking (either regional, national or international authorisation).

ii. Merchant (investment) banking

iii. Specialised banking (microfinance, mortgage, non-interest banking (regional and national).

iv. Development finance institutions.

The entry of non-interest banking into the Nigerian financial system is expected to herald a new market and institutional players, thus deepening the nation's financial markets and furthering the quest for financial inclusion. Indeed, the first fully-licensed non-interest bank in Nigeria (Jaiz Bank Plc) started business on January 6, 2012.

According to Soludo (2011), the importance of Microfinance in a growing economy like Nigeria's cannot be overemphasized, given the country's potential in addressing the challenges of financial exclusion that has shut out a large population from full participation in economic activities. As at December, 2011, there were 24 banks with 5,789 branches and 816 microfinance banks, bringing the total number of branches to 6,605.

The ratio of banks branch to total population is 24,224 persons, indicating a high level of financial exclusion. This is confirmed by the 2010 Enhancing Financial Innovation and Access (EFINA) survey, which showed that 46.3% of Nigerians are still financially excluded compared to South Africa (26 %), Kenya (32.7 %) and Botswana (33 %).

Thus in 2012, the CBN will ensure the establishment of the Microfinance Development Fund (MDF) to improve access to affordable and sustainable sources of finance by Microfinance Institutions (MFIs) and Microfinance banks (MFBs), which will have commercial and social components. This will enhance their operations and outreach as well as support the capacity building activities of the MFBs and MFIs.

It is in pursuant of this, the CBN is considering the establishment of a special Fund that will provide credit facilities exclusively to women at a single digit interest rate before the end of the year.

Payment System

The CBN recently introduced the "Cash-less" policy as part of on-going reforms to address the currency management challenges in Nigeria as well as enhance the national payment system. Given that the Nigerian economy is heavily cash-driven, this situation increased the operational costs of the banking sector, which is passed on to the customer in form of higher service charges and high lending rates. These costs are significant due to the high cost incurred in cash management, currency sorting, cash movement and frequent printing of the currency notes. The direct cost of cash management in the industry is estimated to be N192 billion by 2012. Research has shown that about 90 percent of withdrawals by bank customers are typically below N150,000 whereas only 10% who withdraw above N150,000 are responsible for the astronomical rise in the cost of cash management being incurred by the generality of the bank customers. There are also risks inherent in the cash-based economy, namely high incident of robberies, increased corrupt practices, and the public's propensity to abuse the currency notes. The CBN in collaboration with the Bankers Committee is working to create an environment

where a higher and increasing proportion of transactions are done through cheques and electronic payments in line with global trends. Interestingly, payments of up to N10 million can now be made through the clearing system with a cheque (Soludo 2011).

Completion of the Recapitalization Exercise

Accordig to Yasdani (2012), there was need for some rescued banks to merge to strengthen their capital base and remain competitive in the market. Accordingly, five Transaction Implementation Agreements (TIAs) were signed among the banks. The CBN issued a letter of no objection to the banks being acquired to proceed with the merger. The signing of the legally binding TIAs for the five banks and the full capitalization of the three new banks by AMCON resolved the issue of the combined negative asset value of the eight banks rescued by the CBN. Accordingly, the recapitalization of all the five rescued banks that signed the TIAs was completed in 2011.

Effect of the Reforms

The current banking reforms have yielded some results, which include: The reforms have brought about a new mindset to the industry as banks are putting in place best practices in corporate governance and risk management. Transparency and public disclosure of transaction shave remarkably improved.

• According to Soludo (2011) a number of banks have returned to profit and improved their balance sheets, as the recent results of their financial statement shave shown.

• Banks are gradually resuming lending to the private sector with additional liquidity of more than N1.7 trillion injected into the banking system through the issuance of AMCON bonds, and

significant progress in redirecting credit to the power sector and SMEs at single digit interest rates. These initiatives have saved and helped create thousands of jobs in the economy.

i. A code of corporate governance has been issued by the CBN. The CEO of banks shall serve a maximum tenure of 10 years. Furthermore, all CEOs who would have served for 10 years by July 31, 2010 ceased to function in that capacity and had handed over to their successors.

ii. • Nigerian banks are now key players in the global financial markets with many ranking within the top 20 banks in Africa and among the 1000 banks in the world

   • The reforms have culminated in moderating the spread between the lending and deposit rates to 9.7% as at end December, 2011, from 12.2% in 2010. This has contributed to the existing macroeconomic stability in the economy with inflation moderating to 10.3% as at end December, 2011.

iii. The hitherto volatility in the exchange rate witnessed in the foreign exchange market has been brought under control. The premium is within the international standard of 5.0%.

iv. Thanks to the reforms, there is now greater confidence in the banking system with the exit of distressed banks and adoption of a code of corporate governance.

v. Increased widespread use of e-payment services among Nigerians.

Banking Reforms and the Challenges

The Nigerian banking reforms faced some challenges despite its laudable achievements. First and foremost is the wrong perception of the intent of the reforms. The introduction of the new banking model, especially specialised banking (non-interest banking), is intended to broaden the scope of financial services offered by banks in Nigeria. However, it has been given a religious

connotation. The wrong perception and stiff resistance to the policy could potentially deter prospective investors in the banking industry (Odufu 2013).

Yet the cash-less policy has faced tremendous resistance, despite its prospect for economic good and development and the global trend in the intensity of usage of e-payment.

The cost of doing business in Nigeria is still high when compared with developed economies or some emerging and developing countries owing to the poor state of infrastructure. That the high growth rate recorded in the last five years has not been inclusive is another challenge. This implies that the growth has not translated into sustainable development. This is responsible for the high unemployment and poverty levels, which inevitably affect the low banking habit in the country.

Hitherto, employee recruitment was merely to comply with regulatory requirement, while training was viewed as a non-revenue function that was costly and unnecessary.

In a nut shell, the Banking sector occupies a vital position in any economy and must be subjected to continuous reforms for it to function efficiently. The modest achievements recorded so far have been largely due to greater collaboration and commitment of purpose among key stakeholders. Thus, the CBN in its efforts to develop a sound and vibrant banking system will continue to strive for the sustenance of reform policy (Murthy 2015).

2.1.3 Capital Structure

The term Capital Structure according to Kennon (2015) refers to the percentage of capital (money) at work in a business by type. There are two forms of capital: equity capital and debt capital. Alfred (2013) stated that a firm's capital structure implies the proportion of debt and equity in the total capital structure of the firm. Pandey (2012) differentiated between capital structure and financial structure of a firm by affirming that the various means used to raise funds represent the firm's financial structure, while the capital structure represents the proportionate relationship between long-term debt and equity. The capital structure of a firm as discussed by Inanga and Ajayi (2014) does not include short-term credit, but means the composite of a firm's long-term funds obtained from various sources. Therefore, a firm's capital structure is described as the capital mix of both equity and debt capital in financing its assets. However, whether or not an optimal capital structure exists is one of the most important and complex issues in corporate finance.

A critical decision for any business organization is a decision for an appropriate capital structure; the decision is not only because of the need to maximize returns to various organizational constituencies, but on an organization's ability to deal with its competitive environment. The prevailing argument, originally developed by Modigliani and Miller (1958), is that an optimal capital structure exists which balances the risk of bankruptcy with the tax savings of debt. Once established, this capital structure should provide greater returns to stock holders than they would receive from an all-equity firm.

Capital structure is the combination of the debt and equity structure of a company. It can also be referred to as the way a corporation finances its assets through some combination of equity, debt or hybrid securities; that is the combination of both equity and debt. A firm's capital structure is

then the composition of its liabilities. The various components of a firm's capital structure according to Inanga and Ajayi (2014) may be classified into equity capital, preference capital and long-term loan (debt) capital. Equity capital refers to the contributed capital; money originally invested in the business in exchange for shares of stock; and retained profits; profits from past years that have been kept by the company to strengthen the balance sheet, growth, acquisition and expansion of the business. Preference capital refers to a hybrid that combines the features of debentures and equity shares except the benefits while debt capital refers to the long term bonds used by the firm in financing its investment decisions while coming up with its principal and also paying back interest.Akintoye (2014) posited that critical decision for any business organization is a decision for an appropriate capital structure; the decision is not only because of the need to maximize returns to various organizational constituencies, but on an organization's ability to deal with its competitive environment. The prevailing argument, originally developed by Modigliani and Miller (2012), is that an optimal capital structure exists which balances the risk of bankruptcy with the tax savings of debt. Once established, this capital structure should provide greater returns to stock holders than they would receive from an all-equity firm.

In theory, modern financial techniques would allow top managers to calculate accurately optimal trade-off between equity and debt for each firm. However, in practice; many studies found that most firms do not have an optimal capital structure. This is due to the fact that the managers do not have an incentive to maximize firm's performance because their compensation is not generally linked to it. Moreover, since managers do not share firm's profits with shareholders, they are very likely to increase company's expenditures by purchasing everything they like and surrounding themselves of luxury and amenities. Hence, the main concern of shareholders is ensuring that managers do not waste firm's resources and run the firm in order to maximize its

value, which entails finding a way to solve the principal-agent problem (Bokpin and Isshaq; 2014).

The issue of capital structure has been a subject of major concern for researchers and scholars in recent years. It is at this avenue that most studies have observed the behavior of firms' capital raised through sales of shares, debentures, bonds and other long term credits to provide adequate assets in running their businesses in growing the firms' profit (Patrick, Joseph &Kemi, 2013). Other studies have observed that gearing ratio of most companies do have effect on their performances in the sense that if the gearing ratio keeps rising the tendency of its profit growing might not be visible for a particular period.(Ozkan, 2016). Financial analyst compile that gearing ratio and liquidity ration of a company always have effect on the profitability of these companies which measures their performance. This paper provides empirical evidence for existing determinants of capital structure theories and the effects on corporate performance and thus contributes toward proffering solutions to the above mentioned literature problem(Alfred; 2013).

Upon the significant role firms play in the economy of Nigeria the rise and fall of firms in Nigeria call for in depth study on how to avert and make firms very relevant in the economic growth and development of the nation. Akinyomi (2013) financeand financing decision of the firms should be guided to enable them attain the expected optimal Capital structure level in order to enhance corporate performance and maximize the value of the firms. The fundamental claim is that most capital structure issues are similar across regions and economies irrespective of the institutional differences which call for empirical evidence to prove the claim or otherwise.

Chandrasekharan (2012)was of the opinion that firms need to substitute debt for equity or equity for debt and adjusting this until it reaches a level of maximization of value of the firm. The application of excessive external financing could give rise to over leverage of the organization since the organization will have extensive obligations to the fund providers which could disrupt

the business operations and performance. This level is the optimum level of capital structure, a lot of debate among researcher has been on this issue of optimal capital structure that maximizes firm value. Owualah (2013) in his own debate on optimal capital structure opines that debate has shifted from whether they exists to determining the optimal capital structure for any particular firm as well as understanding the underlying influences to the firm's performance. These underlying influence on firms he claims, differ from country to country.

Oladeji and Olokoye (2014), the assumption of the wealth maximization rule is that there exists an optimal capital structure level for a firm which is the level where risk of venturing into external funding through allowing for sharing of earnings commensurate with the return on equity which varies constantly hence the need to identify the effects of the potential determinants of capital structure on corporate performance.

2.1.4 Optimal Capital Structure

The effect of different capital structure and differing business risk are reflected in a firm's income statement. Operating leverage tends to magnify the effect of fluctuating sales and produce a percentage change in operating income (EBIT) larger than the changes in sales.

Akintoye (2014) examined that in practice, firms tend to use capital structure, preferred stock and common equity with which the enterprise plans to raise needed funds. Since capital structure policy involves a strategic trade- off between risk and expected return, the optimal capital structure policy must seek a prudent and informed balance between risk and return. The firm must consider its business risk, tax positions, financial flexibility and managerial conservatism or aggressiveness. While these factors are crucial in determining the target capital structure, operating conditions may cause the actual capital structure to differ from the optimal capital structure.

2.1.5 Capital Structure, Firm Value and Performance

An appropriate capital structure is a critical decision for any business organization. The decision is not only because of the need to maximize returns to various organizational constituencies, but on an organization's ability to deal with its competitive environment. The prevailing argument, originally developed by Modigliani and Miller (2012), is that an optimal capital structure exists which balances the risk of bankruptcy with the tax savings of debt. Once established, this capital structure should provide greater returns to stock holders than they would receive from an all-equity firm.

We argue that the use of leverage either to discipline managers or to achieve economic gain is the easy way out, and in many instances, can lead to the demise of the organization. The fact that an optimal capital structure has not been found is an indication of some flaw in the logic.

Modigliani and Miller (2012) argued that due to tax deductibility of interest payments, the appropriate capital structure for Modigliani a firm is composed entirely of debt. Stohs and Maver (2014) however assert that the Miller and (MM) model is probably true in theory, but in practice, bankruptcy costs exist and they increase when equity is traded off for debt. Hence, they argue on an optimal capital structure that is reached when the marginal cost of bankruptcy is equal to the marginal benefit from tax-sheltering provided by the increase in the debt ratio. The task of efficient managers is thus to recognize when this optimal capital structure is achieved and to maintain it over time. In doing so, they will be able to minimize the weighted average cost of capital (WACC) and financing costs, and thus they will maximize firm's performance and value.

In theory, modern financial techniques would allow top managers to calculate accurately optimal tradeoff between equity and debt for each firm, in practice; however, many studies found that most firms do not have an optimal capital structure(Barclay and Smith, 2012). This is due to the fact that the managers do not have an incentive to maximize firm's performance because their

compensation is not generally linked to it. Moreover, since managers do not share firm's profits with shareholders, they are very likely to increase company's expenditures by purchasing everything they like and surrounding themselves of luxury and amenities. Hence, the main concern of shareholders is ensuring that managers do not waste firm's resources and run the firm in order to maximize its value, which entails finding a way to solve the principal-agent problem(Damodaran; 2013).

2.1.6   The Framework Model

The conceptual framework model is built on the conceptual ideology of Itseuwa and Uwaleke (2014) when they stipulated in their book that the reason for capital structure of every firm is to ascertain the framework of their investment funds used in engagement of their business activities so as to ascertain if the actual capital funds raised could provide profit for the business at the end of each year. It is at this point, the deposit money banks' performances according Itseuwa and Uwaleke (2014) is being measured by the Profit after Tax. They further expatiate that the flow of deposit money banks' performance and their capital structure is reviewed on well performance and participation of these Deposit Money Banks (DMB) could out-rightly raise this funds in the Nigerian Stock Exchange (NSE) showing the composition of the DMB's capital structures raised through the capital market and injected into business to yield profit at the end of the period. This is demonstrated in figure 2.1.5a below:

Fig. 2.1.5a   THE CIRCULAR FLOW OF CAPITAL STRUCTURE AND
PERFORMANCE OF DEPOSIT MONEY BANKS (DMBs).

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┌──────────────────┐                        ┌──────────────────┐
│ PERFORMANCE OF   │ ─────────────────────▶ │ CAPITAL          │
│ DEPOSIT MONEY    │                        │ STRUCTURE        │
│ BANKS (DMBs)     │                        │                  │
└──────────────────┘                        └──────────────────┘
        ▲                                            │
        │                                            ▼
        │                                   ┌──────────────────┐
        │                                   │ ORDINARY         │
        │                                   │ SHARES           │
        │                                   └──────────────────┘
        │                                            │
        │                                            ▼
┌──────────────────┐                        ┌──────────────────┐
│ PROFIT           │ ◀───────────────────── │ DEBENTURE        │
│ AFTER TAX        │ ◀──────                 └──────────────────┘
│                  │ ◀──────                         │
└──────────────────┘                                 ▼
                                            ┌──────────────────┐
                                            │ BONDS            │
                                            └──────────────────┘
                                                     │
                                            ┌──────────────────┐
                                            │ PREFERENCE       │
                                            │ SHARES           │
                                            └──────────────────┘
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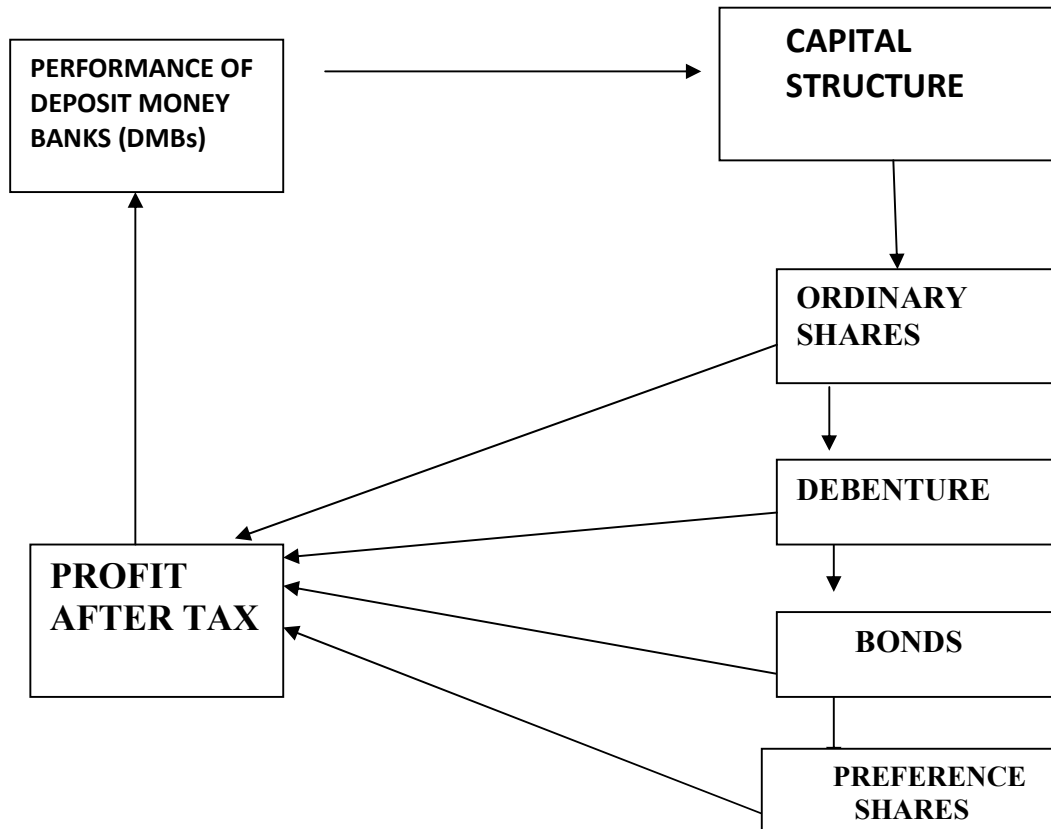
Source: Itseuwa and Uwaleke (2014) An Insight into the Nigerian Capital Market.

2.1.6.1   Ordinary Shares and Performance of Deposit Money Banks in Nigeria

Over the years, ordinary shares has been posited by financial experts and economist as funds raised by firms through individuals and corporate bodies for the establishment of a new or existing business geared towards rewarding these risk takers yields on their funds. Those investors do not come with a fixed amount. Lastly, holders of this type of shares bear losses at the risk of the firm liquidating financially and also do not get a dividend at who buy ordinary shares from firms operating in the capital market are called the ordinary shareholders, they do not gain privileges in their funds invested in the businesses except for their annual dividends

which the period if the firm's financial report is computed at a loss. Though, the ordinary shareholders are sometimes called the owners of the firm, because of the type of risk they borne into the firm's operations. The ordinary shares are sold by the firms who are registered and operating in the stock market in which investors buy these shares at the capital(Osiegbu, Nwakanma, and Onuorah2013).

According to Onyechie (2010), an equity interest in a company can be said to represent a share of the company's assets and a share of any profits earned on those assets after other claims have been met. The equity shareholders are the owners of the company. They purchase shares commonly called ordinary shares. The money is used by the company to buy assets. The assets are used to earn profits, the asset and profit belong to the ordinary shareholders whether the profit are distributed as dividends or retained in the business.

Characteristics of Ordinary Share

Omoregie and Erah (2010) presented the characteristics of ordinary share as follows:

1. The ordinary share must have a nominal value. This is the authorized value assigned to the shares by the company or by the Securities and Exchange Commission (SEC) when the shares were first issued in Nigeria; the nominal values of most shares are ₦1:00 of 50 kobo.

2. An ordinary share possesses a separate market value. The market value is the value assigned to the market, separate from the predetermined nominal value. For quoted companies, this value is determined on the floor of the stock exchange by stockbrokers with due cognizance to the market forces and conditions prevailing in the company.

3. Ordinary shares are transferable in the sense that owners of the shares can dispose of them a third party who still retains the same position held by the original shareholder.

4. Shares may be offered at a price equal to their nominal value, i.e at par, at a price higher that their nominal value at a premium or at a price less than their nominal value at a discount.

5. Ordinary share cannot be redeemed by or repaid to the owners. The Companies and Allied Matters Decree prohibits companies from repaying of capital to shareholders. Owners are entitled to the proceeds of the entire residual asset of the firm in event of liquidation.

2.1.6.2 Debenture and Performance of Deposit Money Banks in Nigeria

If a company needs funds for extension and development purpose without increasing its share capital, it can borrow from the general public by issuing certificates for a fixed period of time and at a fixed rate of interest. Such a loan certificate is called a debenture (Phillips, 2013).

A debenture is a medium to long-term debt format that is used by large companies to borrow money. Most debentures are secured or backed by the borrower's reputation, credit worthiness or history of the issuer while some are based on the borrower's assets or collateral and they varies from one country to another. Both firms and governments frequently issue this type of bond to secure capital. Debentures have a more specific purpose, and they are typically issued to raise short-term capital for upcoming expenses or to pay for expansions. They are sometimes called revenue bonds because they may be expected to be paid for out of the proceeds of a new business project (Ibenta,2011).Debentures are offered to the public for subscription in the same way as for issue of equity shares or can also be purchased through a broker.The interest paid to debenture holders is calculated as a charge against profit in the company's financial statements.

Features of Debentures:

The important features of debentures by Hutchison (2009) are outlined as follows:

1. Debenture holders are the creditors of the company carrying a fixed rate of interest.

2. Debenture is redeemed after a fixed period of time.

3. Debentures may be either secured or unsecured.

4. Interest payable on a debenture is a charge against profit and hence it is a tax deductible expenditure.

5. Debenture holders do not enjoy any voting right.

6. Interest on debenture is payable even if there is a loss.

Benefits of Debentures:

Following are some of the advantages of debenturesas:

1. Issue of debenture does not result in dilution of interest of equity shareholders as they do not have right either to vote or take part in the management of the company.

2. Interest on debenture is tax deductible expenditure and thus it saves income tax.

3. Cost of debenture is relatively lower than preference shares and equity shares.

4. Issue of debentures is advantageous during times of inflation.

5. Interest on debenture is payable even if there is a loss, so debenture holders bear no risk.

2.1.6.3 Bonds and Performance of Deposit Money Banks in Nigeria

These are stocks sold at the capital market by governments, government parastatals, government companies and limited liability corporations. This type of stock is sold at a fixed interest rate at a specified number of years. Bonds are the most secured type of shares in which investors is willing to buy at any amount because of the security terms attached to it. The Nigerian capital market has been characterized in recent times by bonds mostly sold to investors, government and corporate bodies which boost the confidence of these investors coming into the market to purchase these bonds. Therefore, Osiegbu, Nwakanma, and Onuorah (2013) suggested that bonds as demanded highly boost the performance and liquidity of companies in growing the profit of these companies.

According to Ibenta (2011), a bond is a written promise by a business firm to pay a specific sum of money at a specific date to the bearer or registered holder of the bond. It is a documentary promise issued by a public company or a government and which resembles other promissory notes.

Helfert (2012) submitted that bond constitutes a part of an elaborate contract or agreement between the issuing business firm and the bond holder. The basis of such contract or agreement rests on the undertakings by the two sides to the agreement. According to Rock (2012), the bond holder undertakes to furnish the business firm with funds and the business firm undertakes to repay the amount of funds borrowed at a specific future date. Secondly, the business firm will make periodic payments of a fixed rate of interest to the holder or the bearer of the bond. The periodic interest is conceived as the price which the business firm has to pay in order to induce the bond holder to part with his funds for a fairly long time, thereby denying him the alternative uses of these funds.

Lyon (2011) and Fry (2010) noted that the original amount of funds borrowed represents the par value of the bon d or the bond principal. The date at which the bond principal falls due for repayment is known as indenture where the terms and conditions of the bond are defined in a greater detail than on the face of the bond itself. The full rights of the bond holders and the covenant of the business firm are contained in this instrument.

There are several studies that considered the economic case for issuing bonds. The conventional macroeconomic argument for issuing some bonds is that bond finance is less expansionary than money finance and that the expansion is sometimes undesirable, (Romer, 2013). On the other hand, the optimal tax case for bonds rests on the possibility that the issuing of bonds induces individuals to shift consumption towards the future to purchase less capital or to supply more labour.

At the microeconomic level, bonds are issued for different reasons. Corporate borrowers use debt markets to obtain working capital and new equipment. Freear (2010) argues that an important reason several firms opt for dent financing is because the owners do not want ownership dilution. Usually bond holders have no direct control on the business except for various types of indenture provisions in the bond that may constrain the decision making of shareholders. In other words the owners are more willing to bear the additional cost in terms of interest payable on the loan stock.

The bond market in Nigeria can be classified in various ways: it consist of government and corporate securities. In this regard, government securities consist of Federal Government Development Stock, treasury certificates (TCs), and Treasury bonds (TBs) and the development bonds issued by the state and local government.

Another classificatory scheme uses time dimension such that the instruments are categorized into medium and long term bonds. In this sense, the bond market is defined as an organisation market

for standardized marketable loans with medium to long term maturities. The maturity can range from a minimum of 5 years and up to 25 years.

Features of Bond

Hutchison (2009) opined that the major characteristics of bonds are as follows:

1. They are promisesto pay a specific sum known as principal at a designated date of maturity and pay a periodic specific rate of interest.

2. They are made up of various units of identical terms.

3. The issue of bonds is covered by another agreement known as bond indenture and the bond itself makes a reference to this indenture.

4. A separate agreement is also entered into between the business firms and a third party known as the trustee. The bond itself makes reference to the trustee. The work of the trustee is to protect the interest of the bond holders.

5. The trustee usually appends a certificate on the bond and this is reflected in the indenture.

Bond Indenture

Guy (2013) noted that a bond indenture usually contains provisions governing bond issues among which are: operational efficiency and frugality which will in turn enhance not only the earnings potential of the business firm but its savings propensities.

Trustee

A bond indenture involves three parties, the issuing business firm who is the borrower, the bond holder or owner who is the creditor or the lender and the trustee who looks after the interest of the bond holders, like the board of directors who protect the interest of the shareholders in a modern business firm. Though the trustee is the agent of the bond holders, he is appointed by the issuing business firm before the bonds are issued. The trustee may be an individual of affluence

or a financial institution such as investment banker or investment trust company. The duties of a trustee are many:

i.   He certifies the bond issue by ensuring that all necessary legal requirements are fulfilled.

ii. He examines the business firm's property and accounts so as to ensure that the terms and the provisions of the indenture are observed.

iii. He makes sure that the business firm is meeting its tax obligations and it is protecting its property by proper insurance.

iv. He verifies whether the business firm is duly paying the periodic interest and the sinking fund and if there is any default, he has to notify the bond holders and enforce their right to the extent provided.

Classification of Bonds

Bonds can be classified according to the industry in which the business firm issuing the bond operates or according to the securities or assets pledged for the bonds.

Phillips (2013) submitted that the major classes of bonds found in the bond market include: Government bonds, corporate bonds, Public utility bonds, Industrial bonds, Real estate bonds, Mortgage bonds, Collateral trust bonds etc.

2.1.6.4   Preference Shares and Performance of Deposit Money Banks in Nigeria

Preferred stock (also called preferred shares, preference shares or simply preferred) is a type of stock which may have any combination of features not possessed by common stock including properties of both an equity and a debt instrument, and is generally considered a hybrid instrument. Preferred stocks are senior (i.e., higher ranking) to common stock, but subordinate to bonds in terms of claim (or rights to their share of the assets of the company) and may have

priority over common stock (ordinary shares) in the payment of dividends and upon liquidation. Terms of the preferred stock are described in the articles of association(Drinkard, 2014).

Like bonds, preferred stocks are rated by the major credit-rating companies. The rating for preferred is generally lower than for bonds because preferred dividends do not carry the same guarantees as interest payments from bonds and because preferred-stock holders claims are junior to those of all creditors.

Features of Preference Shares

Preferred stock is a special class of shares which may have any combination of features not possessed by common stock. According to Kieso, Donald, Weygandt, Warfield and Terry (2007)the following features are usually associated with preferred stock:

  i.   Preference in dividends

  ii.   Preference in assets, in the event of liquidation

  iii. Convertibility to common stock.

  iv.   Callability (ability to be redeemed before it matures), at the option of the corporation. Possibly subject to a spans clause

  v.   Nonvoting

Preference in Dividends

In general, preferred stock has preference in dividend payments. The preference does not assure the payment of dividends, but the company must pay the stated dividends on preferred stock before paying any dividends on common stock.

Preferred stock can be cumulative or noncumulative. A cumulative preferred requires that if a company fails to pay a dividend (or pays less than the stated rate), it must make up for it at a later time. Dividends accumulate with each passed dividend period (which may be quarterly, semi-annually or annually). When a dividend is not paid in time, it has "passed", all passed dividends on a cumulative stock make up a dividend in arrears. A stock without this feature is known as a noncumulative, or straight, preferred stock; any dividends passed are lost if not declaredKieso, et al (2007).

Other Features or Rights

- Preferred stock may or may not have a fixed liquidation value (or par value) associated with it. This represents the amount of capital which was contributed to the corporation when the shares were first issued.

- Preferred stock has a claim on liquidation proceeds of a stock corporation equal to its par (or liquidation) value, unless otherwise negotiated. This claim is senior to that of common stock, which has only a residual claim.

- Almost all preferred shares have a negotiated, fixed-dividend amount. The dividend is usually specified as a percentage of the par value or as a fixed amount (for example, Pacific Gas & Electric 6% Series A Preferred). Sometimes, dividends on preferred shares may be negotiated as floating; they may change according to a benchmark interest-rate index (such as LIBOR).

- Some preferred shares have special voting rights to approve extraordinary events (such as the issuance of new shares or approval of the acquisition of a company) or to elect directors, but most preferred shares have no voting rights associated with them; some preferred shares gain voting rights when the preferred dividends are in arrears for a

substantial time. This is all variable on the rights assigned to the preferred shares at the time of incorporation.

The above list (which includes several customary rights) is not comprehensive; preferred shares (like other legal arrangements) may specify nearly any right conceivable. Preferred shares in the U.S. normally carry a call provision, enabling the issuing corporation to repurchase the share at its (usually limited) discretion.

Types of Preference Shares

In addition to straight preferred stock, there is diversity in the preferred stock market. Additional types of preferred stock include:

- **Prior Preferred Stock:**Many companies have different issues of preferred stock outstanding at one time; one issue is usually designated highest-priority. If the company has only enough money to meet the dividend schedule on one of the preferred issues, it makes the payments on the prior preferred. Therefore, prior preferred have less credit risk than other preferred stocks (but usually offers a lower yield).
- **Preference Preferred Stock:**Ranked behind a company's prior preferred stock (on a seniority basis) are its preference preferred issues. These issues receive preference over all other classes of the company's preferred (except for prior preferred). If the company issues more than one issue of preference preferred, the issues are ranked by seniority. One issue is designated first preference; the next-senior issue is the second and so on.
- **Convertible Preferred Stock**:These are preferred issues which holders can exchange for a predetermined number of the company's common-stock shares. This exchange may occur at any time the investor chooses, regardless of the market price of the common

stock. It is a one-way deal; one cannot convert the common stock back to preferred stock. A variant of this is the anti-dilutive convertible preferred recently made popular by investment banker Stan Medley who structured several variants of these preferred for some forty plus public companies. In the variants used by Stan Medley the preferred share converts to either a percentage of the company's common shares or a fixed dollar amount of common shares rather than a set number of shares of common.[7] The intention is to ameliorate the bad effects investors suffer from rampant shorting and dilutive efforts on the OTC markets.

- **Cumulative Preferred Stock:** If the dividend is not paid, it will accumulate for future payment.

- **Exchangeable Preferred Stock:** This type of preferred stock carries an embedded option to be exchanged for some other security.

- **Participating Preferred Stock:** These preferred issues offer holders the opportunity to receive extra dividends if the company achieves predetermined financial goals. Investors who purchased these stocks receive their regular dividend regardless of company performance (assuming the company does well enough to make its annual dividend payments). If the company achieves predetermined sales, earnings or profitability goals, the investors receive an additional dividend.

- **Perpetual Preferred Stock**: This type of preferred stock has no fixed date on which invested capital will be returned to the shareholder (although there are redemption privileges held by the corporation); most preferred stock is issued without a redemption date.

- **Putable Preferred Stock**: These issues have a "put" privilege, whereby the holder may (under certain conditions) force the issuer to redeem shares.

- **Monthly Income Preferred Stock:**A combination of preferred stock and subordinated debt.

- **Non-cumulative Preferred Stock:**Dividends for this type of preferred stock will not accumulate if they are unpaid; very common in trupsand bank preferred stock, since under BIS rules preferred stock must be non-cumulative if it is to be included in Tier 1 capital.

- **Super voting Stock:** a "lass of stock that provides its holders with larger than proportionate voting rights compared with another class of stock issued by the same company". It enables a limited number of stockholders to control a company. Usually, the purpose of the super voting shares is to give key company insiders greater control over the company's voting rights, and thus its board and corporate actions. The existence of super voting shares can also be an effective defence against hostile takeovers, since key insiders can maintain majority voting control of their company without actually owning more than half of the outstanding shares.

Advantages of preference shares

1. No Obligation for Dividends: A company is not bound to pay a dividend on preference shares if its profits in a particular year are insufficient. It can postpone the dividend in case of cumulative preference shares also. No fixed burden is created on its finances.

2. No Interference: Generally, preference shares do not carry voting rights.Therefore, a company can raise capital without dilution of control. Equity shareholders retain exclusive control over the company.

3. Trading on Equity: The rate of dividend on preference shares is fixed. Therefore, with the rise in its earnings, the company can provide the benefits of trading on equity to the equity shareholders.

4. No Charge on Assets: Preference shares do not create any mortgage or charge on the assets of the company. The company can keep its fixed assets free for raising loans in future

5. Variety: Different types of preference shares can be issued depending on the needs of investors. Participating preference shares or convertible preference shares may be issued to attract bold and enterprising investors.

2.1.6.5 Profit after tax (PAT) as a Measure of Banking Performance

The major aim of deposit money banks' existence is to minimize cost to maximize profit. The Profit after Tax is the proxy measurement of deposit money banks' performance in the Nigerian economy. It is the medium that investors use in acknowledging the level of performance being operated by these companies after sourcing funds from the capital market. The profit after tax of any deposit money banks is examined after deducting operating expenses, interest and tax from its revenue for the year (Nwankwo, 2014).

2.1.7 Determinants of Banks Capital Structure

Capital structure of banks is determined by various internal and external factors. The macro variables of the economy of a country like tax policy of 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. This area presents how the micro-factors affect the capital

structure of a firm with reference to the relevant capital structure theories stated in the theoretical framework:

Size: The bankruptcy cost theory explains the positive relation between the capital structure and size of a firm. The large firms are more diversified (Remmers,Stonehill, Wright, and Beekhuisen1974), have easy access to the capital market, receive higher credit ratings for debt issues, and pay lower interest rate on debt capital (Pinches and Mingo 1973). Further, larger firms are less prone to bankruptcy (Titman and Wessels 1988) and this implies the less probability of bankruptcy and lower bankruptcy costs. The bankruptcy cost theory suggests the lower bankruptcy costs, the higher debt level. The empirical studies carried out during the 1970s, as suggested by this theory, also show the positive relation between the size of firms and capital structure (Martin and John, 1988). But results of some empirical studies do not corroborate with this theoretical relation.

Growth Rate: The agency cost theory and pecking order theory explain the contradictory relation between the growth rate and capital structure. Agency cost theory suggests that equity controlled firms have a tendency to invest sub-optimally to expropriate wealth from the enterprises' bondholders. The agency cost is likely to be higher for enterprises in growing industries which have more flexibility in their choice of future investment. Hence, growth rate is negatively related with long-term debt level (Jensen and Meckling, 1976). This theoretical result is backed up by the empirical studies carried out by Kim and Sorensen (1986), and Titman and Wessels, (1988) but Kester, (1986) study rejected this relation. Pecking order theory, contrary to the agency cost theory, shows the positive relation between the growth rate and debt level of enterprises. This is based on the reasoning that a higher growth rate implies a higher demand for funds, and, ceteris paribus, a greater reliance on external financing through the preferred source

of debt (Sinha 1992). For, pecking order theory contends that management prefers internal to external financing and debt to equity if it issues securities (Myers 2001). Thus, the pecking order theory suggests the higher proportion of debt in capital structure of the growing enterprises than that of the stagnant ones. Chung (2003), Chaplinsky and Niehaus (1990) showed the evidence contrary to the pecking order theory.

Profitability: The static trade-off hypothesis pleads for the low level of debt capital of risky firms (Myers 1984). The higher profitability of firms implies higher debt capacity and less risky to the debt holders. So, as per this theory, capital structure and profitability are positively associated. But pecking order theory suggests that this relation is negative. Since, as stated earlier, firm prefers internal financing and follows the sticky dividend policy. If the internal funds are not enough to finance financial requirements of the firm, it prefers debt financing to equity financing (Myers 2001). Thus, the higher profitability of the enterprise implies the internal financing of investment and less reliance on debt financing, (Aremu, Ekpo and Mustapha 2013). Most of the empirical studies support the pecking order theory. The studies of Titman and Wessels (1988), Kester (1986), Friend and Hasbrouck (1989), Friend and Lang (1988), Gonedes et al (1988) show that negative relationship exist between the level of debt in capital structure and profitability. Indian and Nepalese studies also show the same evidence as foreign studies do (Baral, 1996). Only a few studies show the evidence in favor of static trade-off hypothesis contention.

Dividend Payout: The bankruptcy costs theory pleads for adverse relation between the dividend payout ratio and debt level in capital structure. The low dividend payout ratio means increase in the equity base for debt capital and low probability of going into liquidation. As a result of low probability of bankruptcy, the bankruptcy cost is low. According to the bankruptcy cost theory,

the low bankruptcy cost implies the high level of debt in the capital structure. But the pecking order theory shows the positive relation between debt level and dividend pay-out ratio (Titman and Wessels1988). According to this theory, management prefers the internal financing to external one. Instead of distributing the high dividend, and meeting the financial need from debt capital, management retains the earnings. Hence, the lower dividend pay-out ratio means the lower level of debt in capital structure.

Business Risk: In banking, one of the most important determinants of Capital is related to the risk that banks have taken. Legal regulations relate the level of capital that banks must maintain with the level of risks that they carry. The main reason of this is that capital is viewed as a shield against unexpected losses and bankruptcy. Both agency and bankruptcy cost theories suggest the negative relation between the capital structure and business risk. The bankruptcy cost theory contends that the less stable earnings of the enterprises, the greater is the chance of business failure and the greater will be the weight of bankruptcy costs on enterprise financing decisions. Similarly, as the probability of bankruptcy increases, the agency problems related to debt become more aggravating. Thus, this theory suggests that as business risk increases, the debt level in capital structure of the enterprises should decrease (Taggart 1985). Studies carried out in western countries during 1980s show the contradictory evidence in this regard (Martin et al, 1988). The studies carried out in India and Nepal also show the contradictory evidence on the relation between the risk and debt level. Sharma (1983) and Chamoli (1985) show the evidence against, and Garg (1988) and Paudel (1994) do for the relation consistent with the bankruptcy and agency cost theories.

Tax Charge: Numerous empirical studies have explored the impact of taxation on corporate financing decisions in the major industrial countries. Some are concerned directly with tax

policy, for example, MacKie-Mason (1990), Shum (1996) and Graham (1999). MacKie-Mason (1990) studied the tax effect on corporate financing decisions and provided evidence of substantial tax effect on the choice between debt and equity. He concluded that changes in the marginal tax rate for any firm should affect financing decisions. When already exhausted (with loss carry forwards) or with a high probability of facing a zero tax rate, a firm with high tax shield is less likely to finance with debt. The reason is that tax shields lower the effective marginal tax rate on interest deduction. Graham (1999) concluded that in general, taxes do affect corporate financial decisions, but the magnitude of the effect is mostly "not large". On the other hand, DeAngelo and Masulis (1980) show that there are other alternative tax shields such as depreciation, research and development expenses, investment deductions, etc., that could substitute the fiscal role of debt. Empirically, this substitution effect is difficult to measure, as finding an accurate proxy for tax reduction that excludes the effect of economic depreciation and expenses is tedious (Titman and Wessels, 1988).

Dammon and Senbet (1988) argue that there is also an income effect when investment decisions are made simultaneously with financing decisions. They suggest that increases in allowable investment-related tax shields due to changes in the corporate tax code are not necessarily associated with reduction in leverage at the individual firm level when investment is allowed to adjust optimally. They explain that the effect of such an increase depends critically on the trade-off between the "substitution effect" advanced by DeAngelo and Masulis (1980) and the "income effect" associated with an increase in optimal investment. The tax incentive of debt contributes to its presence in the capital structure, as the interests payments on debt is tax-deductible, hence reducing company's tax burden (Dzolkamaini, 2005).

Tangibility: Due to the conflict of interest between debt providers and shareholders (Jensen and Mekling, 1976), lenders face risk of adverse selection and moral hazard. Consequently, lenders may demand security, and collateral value (proxied by the ratio of fixed to total assets) may be a major determinant of the level of debt finance available to companies (Scott (1977), Stiglitz and Weiss (1981), Williamson (1988) and Harris and Raviv (1990)). The degree to which firms' assets are tangible and generic should result in the firm having a greater liquidation value. Capital intensive companies will relatively employ more debt (Myers, 1977), as pledging the assets as collateral (Myers, 1977; Harris and Raviv, 1991) or arranging so that a fix charge is directly placed to particular tangible assets of the firm. Bank financing will depend upon whether the lending can be secured by tangible assets (Storey, 1994; Berger and Udell, 1998).

2.2 Theoretical Framework

2.2.1 Irrelevant and Relevant Theory of Capital Structure

Modigliani and Miller (MM), (2012) illustrates that under certain key assumptions, firm's value is unaffected by its capital structure. Capital market is assumes to be perfect in Modigliani and Miller's world, where insiders and outsiders have free access to information; no transaction cost, bankruptcy cost and no taxation exist; equity and debt choice become irrelevant and internal and external funds can be perfectly substituted. The M-M theory (2012) argues that the value of a firm should not depend on its capital structure. The theory argued further that a firm should have the same market value and the same Weighted Average Cost of Capital (WACC) at all capital structure levels because the value of a company should depend on the return and risks of its operation and not on the way it finances those operations. Miller brought forward the next version of irrelevance theory of capital structure. He appealed that, capital structure decisions of firms with both corporate and personal taxes circumstances are irrelevant (Miller 2012).

If these key assumptions are relaxed, capital structure may become relevant to the firm's value. So, research efforts have been contributed to relaxing the ideal assumptions and describing the consequences. This theory was criticized on the ground that perfect market does not exist in real life situation. Attempts to relax these assumptions particularly the no bankruptcy cost and no taxation led to the static trade off theory (Miller 2012).

2.2.2   Agency Cost Theory of Capital Structure

This is a theory concerning the relationship between the principal (shareholders) and the agent of the principal (company's managers). This suggests that the firm can be viewed as a nexus of contracts (loosely defined) between resource holders. An agency relationship arises whenever

one or more individual, called principals, hire one or more other individuals, called agents, to perform some service and then delegate decision- making authority to the agents (Gang, 2014)

The agency theory concept was initially developed by Berle and Means (2014), who argued that due to a continuous dilution of equity ownership of large corporations, ownership and control become more separated. This situation gives professional managers an opportunity to pursue their interest instead of that of shareholders.

Gang, (2014) suggested that, for an optimal debt level in capital structure by minimizing the agency costs arising from the divergent interest of managers with shareholders and debt holders. They suggest that either ownership of the managers in the firm should be increased in order to align the interest of managers with that of the owners or use of debt should be motivated to control managers' tendency for excessive extra consumptions. Dimitris and Psillaki (2015) presents agency problem associated with free-cash flow. They suggested that free cash flow problem can be somehow controlled by increasing the stake of managers in the business or by increasing debt in the capital structure, thereby reducing the amount of "free" cash available to managers. Therefore, firms which are mostly financed by debt given managers less decision power of those financed mostly by equity, and thus debt can be used as a control mechanism, in which lenders and shareholders becomes the principal parties in the corporate governance structure.

2.2.3   Pecking Order Theory of Capital Structure

The pecking order theory of capital structure as introduced by Donaldson (1961) is among the most influential theories of corporate leverage. It goes contrary to the idea of firms having a unique combination of debt and equity finance, which minimize their cost of capital. It is the main contender to the trade-off theory; it suggests that actual corporate leverage ratios typically do not reflect capital structure targets, but rather the widely observed corporate practice of

financing new investments with internal funds when possible and issuing debt rather than equity if external funds are required. In the pecking order model, an equity offering is typically regarded as a very expensive last resort. Chaplinsky and Niehaus (2013) suggest that when a firm is looking for ways to finance its long-term investments, it has a well-defined order of preference with respect to the sources of finance it uses. It states that a firm's first preference should be the utilization of internal funds (i.e. retain earnings), followed by debt and then external equity. (Huang and Song, 2015) argues that the more profitable the firms become, the lesser they borrow because they would have sufficient internal finance to undertake their investment projects. He further argues that it is when the internal finance is inadequate that a firm should source for external finance and most preferably bank borrowings or corporate bonds. And after exhausting both internal and bank borrowing and corporate bonds, the final and least preferred source of finance is to issue new equity capital.

Pecking Order theory tries to capture the costs of asymmetric information which states that companies prioritise their sources of financing (from internal financing to equity) according to the principle of least effort, or of least resistance, preferring to raise equity as a financing means of last resort (Chaplinsky and Niehaus; 2013). Hence, internal funds is used first, and when that is exhausted, debt is issued, and when it is not sensible to issue any more debt, equity is issued. On the other hand, Pecking Order Theory captures the effect of asymmetric information upon the mispricing of new securities, which says that there is no well-defined target debt ratio (Myers &Majluf; 2011). They opined that investors generally perceive that managers are better informed of the price sensitive information of the firms. Investors' perception is such that managers issue risky securities when they are overpriced. This perception of investors leads to the under-pricing of new equity issue. Sometimes this under-pricing becomes so severe that it causes substantial loss to the existing shareholders. To avoid the problem arising from information asymmetry

firms usually fulfil their financing needs by preferring retained earnings as their main source of financing, followed by debt and finally external equity financing as the last resort (Chaplinsky and Niehaus; 2013).

Damodaran (2013) posited thatwhen managers issue new equity it is generally an indication to investors that the company is overvalued. However, investors are aware of this information asymmetry and will react negatively to issuing announcements, making them less keen on financing new equity without price reductions. Consequently, this will drive managers either towards missing up positive NPV investments or issuing excessively high debt levels that may threaten the future of the company. These contradictions lead the following arguments. First, internal funds in form of retained earnings are more favourable than external equity. Second, financial slack, i.e. disposal of real assets, cash or marketable securities, is possible. Lastly, debt is more attractive than equity, simply because it is cheaper and less risky (Myers, 2014).

2.2.4   The Free Cash Flow Theory of Capital Structure

The free cash flow problem proposed by Jensen (2016) relies on the principal agency theory and the analysis of conflicts between managers and shareholders. The agency problem is associated with imperfect and asymmetric information; mangers are the agents of shareholders, however this relationship is fraught with contradictory interests. It states that management tends to act in a way that is more inclined to serve its own interests rather than the shareholders. The choice of capital structure and dividend policy creates major conflicts that might influence the way in which firms are operated (Meyers, 2014).

Agency costs are divided into two categories, agency costs of equity and agency costs of debt. The agency costs of equity are based on the fact that while managers bear the responsibility and costs of a performed activity, they are not able to profit from the entire gain(Damodaran, 2013). Hence, they will become more inclined to obtain perquisites and transferring the firm's assets

into personal benefits than managing the firm the optimal way (Pike & Neale 2014). Dividend pay-outs reduce the free cash flow under management's control, hence mitigating the risk of wasting that cash flow on negative NPV projects. Free cash flow is the cash flow beyond what is required to finance all projects that have positive NPV. Conversely, managers are more interested in investing in projects, despite their NPV, to grow their firms. Meyers (2014) argues that growth enhances managers' power as it puts more resources under their control. Further, growth increases managers' perquisites, since compensations are usually associated with growth. Usually, this problem is more palpable when organizations generate large free cash flows. The issue lies in how to embolden manager's to apply this cash flow efficiently (Famaand French, 2013). The influence of agency costs on capital structure will thereby become more significant for such organization, as introducing debt to capital structure will replace dividend pay-outs but alleviate the agency problem by reducing the resources under managers' control. Inanga and Ajayi, (2014) suggested that debt is more effective than dividend pay-outs in reducing agency costs. The pay-out of cash to shareholders and dividend promises are not static but can alter in the future. However, when issuing debt, managers are forced to pay interest and principals in a way that cannot be changed; otherwise the cost of default will increase, hence threatening the future of the organization (Meyers; 2014). Issuing more debt to repurchase stock is also an effective way in encouraging managers to make better use of the free cash flow. However, increased leverage will affect firm value and consequently increase the cost of financial distress (Jensen, 2016).

Another problem that may occur is the second category of agency costs, i.e. the agency costs of debt. The agency costs of debt focuses on the relationship between shareholders, bondholders and manager's ways of obtaining personal interests (Huang and Song, 2015). When debt increases in the firm's capital structure it transfers default risk on bondholders while managers

and shareholders carry the company's investment decisions. The problems occur when managers start to act in a way that benefits themselves or shareholders, on the behalf of bondholders. However, bondholders are aware of such contradictory and can put some restrictions on the use of their money to mitigate the potential for financial default. (Rajan and Zingales, 2013).

Introducing debt to the firm's capital structure to control management is called by Jensen (2016) the "control hypothesis". However, it is not necessarily applicable in all types of organizations. It is more important in large mature firms that have large free cash flows but low growth prospects or investments with positive NPV. For such organizations, the effect of agency costs could be very stern (Jensen, 2016).

2.2.5 The Static Trade-off Theory of Capital Structure

Chaplinsky and Niehaus (2013) stipulated that the static trade-off theory emphasizes taxes and suggests that the level of debt is predicted from the trade-off between tax advantages and the costs of default. The static trade off theory has several advantages. It provides a simple and rational explanation of the benefits of introducing debt to capital structure. The proposition is well known and agreed upon by most business people- that is leverage can reduce taxes but too high levels can induce financial default. The trade-off theory suggests that there is an optimal capital structure in which the benefits of debt are offset by the cost of debt. This optimal capital structure is achieved when the marginal benefit of an additional unit of debt is exactly offset the marginal cost of an additional unit of debt (Fama& French, 2013). Furthermore, the theory suggest that growth firms greatly dependent on R&D have less tangible assets and are expected to borrow less than mature firms with low investment opportunities but with rather high free cash flows. It also supports research on the market reactions to announcements related to security issues or exchanges. All these arguments strengthen the fact that the trade-off theory is of huge significance practically (Myers, 2014).

However, Myers (2014) argues that special or random events are not explained by the simple static trade off theory. Asset disposals and anticipated good operating revenues can reduce a firm's leverage below the optimum level. Conversely, an unexpected downturn in revenues might leave a firm above its optimal leverage ratio. As such events occur, we expect firms to issue debt or equity and achieve the optimal capital structure. In both cases managers would seek to achieve the optimal capital structure in order to maximize firm value. Moreover, Modigliani and Miller (2012) the relationship between profitability and leverage is probably the most important argument against the trade-off theory. In practice, firms with high profitability tend to borrow less, whereas firms with low profitability borrow more. Yet the trade-off theory would envisage the opposite, suggesting that highly profitable firms have more income to put out on debt issuing and to protect from tax payments. However, none of these arguments deny the impact of the static trade-off theory on firms' determination of the optimal level of capital structure (Myers, 2014).

2.2.7 Resource-Based Theory of Capital Structure

In the resource based theory, a firm's competitive advantage is based on the possession tangible and intangible resources, which are difficult or costly for other firms to obtain. In order to sustain the firm's competitive advantage these resources must be valuable, rare, inimitable, and not substitutable (Miller, 2012). A major contribution of resources based theory is that it explains long lived differences in industry conditions (Pike and Neale, 2013). It can be argued that considerable resource heterogeneity exists among various shareholder categories. For emerging economic firms, these differences arise from shareholders being either foreign or domestic and financial or strategic. The impact on firm performance of these owners with diverse resource endowments is expected to differ as a consequence of this heterogeneity in resource and organisational capabilities.

2.3   Empirical Literature

With the view of helping both growing and grown firms in structuring their finance efficiently, many studies have been undertaken home and abroad, that is; locally and internationally, on this area of study. Some of these studies will be discussed in this section and to make this section easier, it will be grouped internationally and locally. The following studies were undertaken locally, here in Nigeria; Osaze(2015) conducted a study using 87 firms out of the population of 216 firms listed on the Nigeria stock exchange for a period of five years (2007-2011) from static trade-off, agency and pecking order theory point of view. He employed the panel multiple regression analysis and the study reveals that for the Nigerian listed firms; firms' size, growth and age are significant with the debt ratio of the firm, whereas, profitability and tangibility are not.

Babalola (2014), using 31 manufacturing firms with audited financial statements for a period of fourteen years (1999-2012) from static trade-off point of view. He employed the triangulation analysis and the study revealed that capital structure is a trade-off between the costs and benefits of debt, and it has been refuted that large firms are more inclined to retain higher performance than middle firms under the same level debt ratio. Another study, using a sample of 10 firms for a period of 10 years (2000-2009) from agency and static trade-off point of view. He used the regression analysis and concluded that the manufacturing industry's capital structure in Nigeria is consistent with trade-off theory and the hypothesis tested that the corporate performance is a nonlinear function of the capital structure.

Akinyomi (2013), using three manufacturing companies selected randomly from the food and beverage categories and a period of five years (2007-2011) using the static trade-off and the pecking order theory point of view. He adopted the use of correlation analysis method and revealed that each of debt to capital, debt to common equity, short term debt to total debt and the

age of the firms' is significantly and positively related to return on asset and return on equity but long term debt to capital is significantly and relativelyrelated to return on asset and return on equity. His hypothesis also tested that there is significant relationship between capital structure and financial performance using both return on asset and return on equity.

Nwankwo (2014), using ten firms listed on the Nigerian Stock Exchange for a period of five years (2006-2010) from the static trade-off, pecking order and agency theory point of view. In his findings, He employed the ImPesaran and shines unit root test and Panel Least Square test and revealed that the sampled firms were not able to utilize the fixed asset composition of their total assets judiciously to impact positively on their firms' performance.

Bassey et al (2013), using a sample of 60 unquoted agro-based firms in Nigeria within a period of six years (2005-2010) from the agency cost theory point of view. They employed the Ordinary Least Square regression and descriptive statistics and revealed that only growth and educational level of firms owners were significant determinants of both long and short term debt ratios, assets structure, age of the firms, gender of owners and export status impacted significantly on long term debt ratios, while business risk, size and profitability of firms were major determinants of short term debt ratio for the firms under investigation.

Simon-Oke and Afolabi (2014), using a study of five quoted firms within a period of nine years (1999-2007) from the static trade-off and agency cost theory point of view. They employed the panel data regression model and revealed in their study a positive relationship between firms' performance and equity financing as well as between firms' performance and debt-equity ratio. There is also a negative relationship that exists between firms' performance and debt financing due to high cost of borrowing in the country.

Semiu and Collins (2015), using a sample size of 150 respondents and 90 firms were selected for both primary data and secondary data respectively for a period of five years (2005-2009) from

the relevance, pecking order, the free cash flow, the agency cost and the trade-off theory point of view. They employed the descriptive statistics and Chi-square analysis and suggested that a positively significant relationship exists between a firm's choice of capital structure and its market value in Nigeria.

The following were undertaken internationally: Ong and Teh (2015) investigated on the capital structure and firms performance of construction companies for a period of four years (2005-2008) in Malaysia. Long term debt to capital, debt to asset, debt to equity market value, debt to common equity, long term debt to common equity were used as proxies as the independent variables (capital structure) while returns on capital, return on equity, earnings per share, operating margin, net margin were used to proxy the corporate performance. The result shows that there is relationship between capital structure and corporate performance.

In Jordan, Zeitun and Tian (2013) conducted a study on capital structure and corporate performance on 167 Jordanian firms from 1989-2003. They found a significantly negative relationship between capital structure and corporate performance. Many variables such as return on assets, return on equity, profitability, Tobin's Q were used to measure performance while leverage, growth, size and tangibility were proxies for capital structure.

In Sri Lanka, Gang(2014) carried out an investigation on capital structure and financial performance of some selected companies in Colombo Stock Exchange from 2005-2009. Capital structure was surrogated by debt while performance was proxy by gross profit, net profit, return on investment / capital employed and returns on assets. The results shown the relationship between the capital structure and financial performance is negative.

Khalaf(2013) using a sample of 45 manufacturing companies listed on the Amman Stock Exchange were used for this study which covers a period of five (5) years from 2005-2009. Multiple regression analysis was applied on performance indicators such as Return on Asset

(ROA) and Profit Margin (PM) as well as Short-term debt to Total assets (STDTA), Long term debt to Total assets (LTDTA) and Total debt to Equity (TDE) as capital structure variables. The results show that there is a negative and insignificant relationship between STDTA and LTDTA, and ROA and PM; while TDE is positively related with ROA and negatively related with PM. STDTA is significant using ROA while LTDTA is significant using PM. The study concludes that statistically, capital structure is not a major determinant of firm performance. It recommends that managers of manufacturing companies should exercise caution while choosing the amount of debt to use in their capital structure as it affects their performance negatively.

In Pakistan, Abdul (2014) using 36 engineering sector firms in Pakistani market listed on the Karachi Stock Exchange (KSE) during the period 2003-2009 applied Pooled Ordinary Least Square regression and revealed the results show that financial leverage measured by short term debt to total assets (STDTA) and total debt to total assets (TDTA) has a significantly negative relationship with the firm performance measured by Return on Assets (ROA), Gross Profit Margin (GM) and Tobin's Q. The relationship between financial leverage and firm performance measured by the return on equity (ROE) is negative but insignificant. Asset size has an insignificant relationship with the firm performance measured by ROA and GM but negative and significant relationship exists with Tobin's Q. Firms in the engineering sector of Pakistan are largely dependent on short term debt but debts are attached with strong covenants which affect the performance of the firm.

However, what we discovered with the majority of this studies is that they are sectorial focusing; like the studies of Babalola (2014), and Akinyomi (2013) focused on manufacturing industries of Nigeria and Amman and Shehu (2014) concentrated on insurance companies in Nigeria, Basseu et al(2013) focused on agro-based companies in Nigeria, Ong and Teh (2015) concentrated on construction companies in Malaysia, Berger and Wharton (2014) focused on the U. S. banking

industry and Abdul (2014) focusing on the engineering sector in Pakistan. Nonetheless, most of the studies fall under the same range of period of 2000-2011 as their year of assessment, the exception of Zeitun and Tian (2013) reviewed from 1989-2003 with a period of fifteen (15) years. Most of the studies did not study on the leverage position of the firms except Ogebe, Ogebe and Alewi(2014). In conclusion, the findings of the foreign studies are very vital only that the differences in their political and economic situation among the nations may hinder their finding from being applicable to Nigeria.

On the other hand, some studies report a negative relation, for example (Kester, 2015), (Kim and Sorensen, 2013) and (Titman and Wessels, 2013). Moreover, the results are very often weak as far as the level of statistical significance is concerned. To proxy for the size of a company, the natural logarithm of sales is used in this study (as it is in most studies of similar character). Another possibility is to proxy the size of a company by the natural logarithm of total assets.

In some studies there been high correlation between the natural logarithm of total assets and the natural logarithm of sales (0.68 in 2000, 0.70 in 2001); therefore the use of the natural logarithm of total assets as a proxy variable for the size of a company should lead to similar results(Okereke, 2015).

2.4   Literature gap

Over the years, the study of Capital Structure has been a prime issue attracting the interest of many researchers. The combination of debt and equity in a company has been an interesting and complicated decision every manager is faced with in the firm. Some studies like Osaze (2015) covered a period of five (5) years and used variables like firm size, growth and age with the debt ratio of the firm, Akinyomi (2013) used fourteen (14) years period and used variables like debt to capital, debt to equity, short term debt to total debt. This study filled the gap by extending the

study from 2000 through 2016 using variables like bonds, preference share, ordinary share, debenture and profit after tax.

2.5   Summary

This chapter discussed the conceptual issues on the platform of capital structures of Deposit Money Banks in Nigeria affecting their performance in the sector and economy. Most companies (Deposit Money Banks in this case) enter the capital market to raise funds from the public and private firms and individuals in order to build their establishment and make profit in their business activities at the end of the period. It is this profit that measures the level of performances such companies have attained to give confidence to their stakeholders and investors. This funds are raised by the companies constitute the capital structure and it's this note that four theories were researched to build a guide on the a-prior expectation of this research and also empirical studies of other authors were reviewed in the chapter to have a clue of expectant results among the variables used in achieving the objectives of the research.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Research Methodology refers to the systematic rules and procedure upon which a research is based against which claims for knowledge and assumptions are proved in favour of a decision, (Asika, 2004).The chapter discussed the method or strategies used to analyse the research data. The research methods adopted by the researcher are:

a. Research Design

b. Population and Sample size

c. Sampling Techniques

d. Method of Data collection

e. Model Specification

f. Techniques of Data Analysis

3.2 Research design

Research design refers to the specification of methods and procedures for acquiring the information needed for a research study. Omojefe, (2014) also explained it as a model proof that allows the researcher to draw inference concerning relations among the variables under investigation. The problem in this study is geared towards investigating and examining the Impact of Capital Structure on the Performance of Deposit Money Banks in Nigerian. Therefore the quasi-experimental research design is chosen and applied in this research study. The researcher is interested in observing what is happening to sample subjects without any attempt to manipulate or control them and this makes the quasi-experimental one of the most appropriate for the study (Yomere and Agbonifoh, 2012).

3.3 Population and Sample Size

In contemporary science, Population are defined as large number of habitants [living and non-living] who are socio-economic value within themselves while samples is defined as selected specimen from a targeted population in which its outcome defines both itself and the population it represents (Kothari, 2004). The Target population of this study involves all financial institutions in Nigeria. Additionally the sample size for this study consists of all Deposit Money Banks in Nigeria and they are as follows: First Bank of Nigeria, Zenith Bank, Guaranty Trust Bank, Fidelity Bank, Access Bank, Diamond Bank, Eco Bank, United Bank for Africa, Skye Bank, Stanbic IBTC Bank, First City Monument Bank, Union Bank of Nigeria, Citi Bank, Heritage Bank, Keystone Bank, Stanbic IBTC, Standard Chartered Bank, Sterling Bank, Unity Bank and Wema Bankall located in Lagos for the period 2000-2016.

3.4 Sampling Technique

It also refers to the technique or the procedure the researcher would adopt in selecting items for the sample Kothari (2004). For the purpose of this study, the non-probability sampling techniques were used.

3.5 Method of Data Collection

The Method of Data Collection, literally, involves either the Primary source or Secondary source for its collection (Olannye, 2006). For this study, Secondary Method was considered in which the materials used for this research wasobtained from secondary data as source.

Secondary data from Financial Reports and Annual Statistical Bulletin on Bond, Preference Shares, Ordinary Shares, Debenture and Profit after Tax were obtained from 2000 to 2016. The data of the dependent variables covered the whole Deposit Money Banks in Nigeria which was

gotten from CBN Statistical Bulletin (2000-2016) while the dependent variable Profit after Tax covers for the whole Deposit Money Banks in Nigeria.

3.6   Model Specification

From the Research Methodology, the model shall contain the following variables:

Modelling:

PAT = f (BND, PRFS, ORS, DBT)

Where:

PAT = Profit after tax, BND = Bond, PRFS = Preference Shares, ORS = Ordinary Shares, DBT = Debenture, β_0 = Constant Intercept; $\beta_1 - \beta_3$ = Coefficients; μ = Error term.

The model can be expressed in estimation form as follows:

$$LnPAT = \beta_0 + \beta_1 LnBND + \beta_2 LnPRFS + \beta_3 LnORS + \beta_4 LnDBT + \mu$$

Aprior Expectation:

$\beta_1, \beta_2 < 0$

$\beta_3, \beta_4 > 0.$

Where;

$LnBND = Log_e$ of Bond, $LnPRFS = Log_e$ of Preference shares, $LnORS = Log_e$ of Ordinary Shares and $LnDBT = Log_e$ of Debentureand the Dependent variable is $LnBND = Log_e$ of Profit after Tax, β_0 = Constant Intercept; $\beta_1 - \beta_3$ = Coefficients; μ = Error term.

3.7   Techniques of Data Analysis

The nature of the time series of the dependent variable that is Bank profitability in form of Profit after Tax (PRF) and independent variables (Bond, Preference share, Ordinary shares, Debenture) are diagnostically checked and also tested for Ordinary Least Square (OLS) and Diagnostic Test (Ojameruaye and Oaikhenan, 2013). The Analysis is performed with the help of econometric

tool E-Views 7.0. The following statistical techniques used in testing significance of the variables and models are;

a. Student T-test: the t-test will test the individual contribution of each explanatory variables and their significance for each formulated hypotheses.

b. F-test: the F-test at 1% or 5% level significance will used to test each models.

c. R: the coefficient of multiple regressions, explaining the level of relationship between the variables.

d. R^2: the coefficient of determination, which shows the extent the variations in the independent variables have been able to explain the total variable in the each dependent variable.

e. AR^2: the adjusted coefficient of multiple determinations to test the model as a whole.

f. Durbin Watson: the DW will test the level of autocorrelation among the variables in each of the models.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1   Introduction

This chapter considered the Results and Discussion of data from Capital Structure on the Performance of Deposit Money Banks in Nigeria for the period of 2000-2016, collected from the Central Bank of Nigeria (CBN) Statistical Bulletin 2016 and Annual Reports of the Banks under study 2016. This part of the research work is necessary in order to test the validity of the hypotheses stated in chapter one.

4.2   Data Presentation

Table 4.2.1: **Data for Capital Structure and Deposit Money Bank's Performance**

YEAR	Profit After Tax ₦' Billion	Bonds ₦' Billion	Preference Shares ₦' Billion	Ordinary Share ₦' Billion	Debenture₦' Billion
2000	1,339,239	12.4	0	2.7	1.1
2001	1,507,295	0.2	0.1	6.5	1.5
2002	1,951,769	0	0	10.9	5.8
2003	2,734,853	2.8	0.5	24.6	15.1
2004	3,026,889	3.0	2.3	32.0	13.2
2005	3,621,821	4.0	10.9	31.8	17.0
2006	17,942,256	3.7	39.3	75.8	2.7
2007	7,566,448	79.8	0	177.4	0.6
2008	9,572,329	76.1	0	317.5	1.3
2009	8,233,358	343.50	0	612.0	27.6
2010	11,590,612	391.80	240.1	486.0	56.6
2011	13,135,799	146.40	246.70	355.8	74.8
2012	30,747,675	160.50	240.90	287.1	46.7
2013	29,237,390	304.40	240.30	274.0	55.8
2014	33,087,027	539.20	242.00	64.1	143.9
2015	31,585,005	723.50	294.40	22.2	147.2
2016	33,227,101	877.20	877.20	16.8	149.6

Source: CBN Statistical Bulletin 2016& Annual Report of the Banks under Study 2016.

4.2.1 Discussion of data

Table 4.2.1 shows the data presentation for Capital Structure and Performance of Deposit Money Banks in Nigeria, of which Capital Structure was measured by Bonds, Preference shares, Ordinary shares and Debenture while performance was measured by Profit after Tax of Deposit Money Banks in Nigeria.

Profit after Tax of Deposit Money Banks in Nigeria have experienced relatively stable increase from 2000 – 2005, also had a drastic increase in 2006 which could be attributed to theconsolidation exercise, and declined in 2006. It recorded notable fluctuation from 2007 – 2016.

Bond recorded a positive amount in 2000, but there was a downturn from 2001 to 2006 which connote a fall in the long term fund offered by the banks to the public, there was a notable increase from 2007 till 2016. It reached its peak at the very end of the study.

Preference share, Ordinary share and Debenture recorded positive all through the period under study, had a downturn at the earlier period and later had a notable increase during the end of the period under study.

4.3 Test of Hypotheses

Ho_1: Bonds do not have effect on Profit after Tax (PAT) of Deposit Money Banks in Nigeria.

Ho_2: Preference Shares do not have impact on Profit after Tax (PAT) of Deposit Money Banks in Nigeria.

Ho_3: Ordinary Shares do not have impact on Profit after Tax (PAT) of Deposit Money Banks in Nigeria.

Ho₄: Debenture does not have effect on Profit after Tax (PAT) of Deposit Money Banks in Nigeria.

4.4   Analysis of Data Techniques

4.4.1   Ordinary Least Square (OLS)

Table 4.2.2: Ordinary Least Square (OLS) Result

Dependent Variable: PAT
Method: Least Squares
Date: 07/27/17   Time: 19:17
Sample: 1 17
Included observations: 17

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	12959.67	2589.538	5.004625	0.0003
BND	8262.137	2418.703	3.415937	0.0051
PRFS	1170.912	942.1213	1.242846	0.2377
ORS	0.000380	7.54E-05	5.035446	0.0003
DBT	7819.632	1990.106	3.929254	0.0020

R-squared	0.985920	Mean dependent var		47078.70
Adjusted R-squared	0.981227	S.D. dependent var		15439.79
S.E. of regression	2115.459	Akaike info criterion		18.39186
Sum squared resid	53701986	Schwarz criterion		18.63692
Log likelihood	-151.3308	Hannan-Quinn criter.		18.41622
F-statistic	210.0756	Durbin-Watson stat		2.155694
Prob(F-statistic)	0.000000			

Estimation Command:
=======================
LS PAT C BND PRFS ORS DBT

Estimation Equation:
=======================
PAT = C(1) + C(2)*BND + C(3)*PRFS + C(4)*ORS + C(5)*DBT

Substituted Coefficients:
=======================
PAT = 12959.6659233 + 8262.13716498*BND + 1170.91172713*PRFS + 0.00037980926877*ORS + 7819.63191355*DBT

Source: Author's Computation using E-view 7.0 (2017)

The model included the basic Capital Structure variables affecting Performance of Deposit Money Banks in Nigeria such as Bond, Preference shares, Ordinary shares and Debenture.

From the result, it can be seen that there is a positive and significant relationship between Bond and Performance of Deposit Money Banks in Nigeria as a unit increase in Bond leads to 12959.6 unit increase in banks performance.

There is a positive and no significant relationship between Preference Shares and Performance of Deposit Money Banks in Nigeria as a unit increase in Preference shares leads to 1170.9 unit increase in Banks Performance.

There is a positive and significant relationship between Ordinary Shares and Performance of Deposit Money Banks in Nigeria as a unit increase in ordinary shares leads to 0.000 unit increase in Banks Performance.

Similarly there is a positive and significant relationship between Debenture and Performance of Deposit Money Banks in Nigeria as a unit increase in debenture leads to 7819.6 unit increase in Banks Performance.

4.4.2   Diagnostic Test

This test was applied to confirm the assumptions of the Ordinary Least Square (OLS).

Table 4.2.3: Normality Test

Series: Residuals	
Sample 1 17	
Observations 17	
Mean	-4.33e-12
Median	-231.4016
Maximum	4216.039
Minimum	-3373.473
Std. Dev.	1832.041
Skewness	0.400217
Kurtosis	3.142046
Jarque-Bera	0.468118
Probability	0.791315
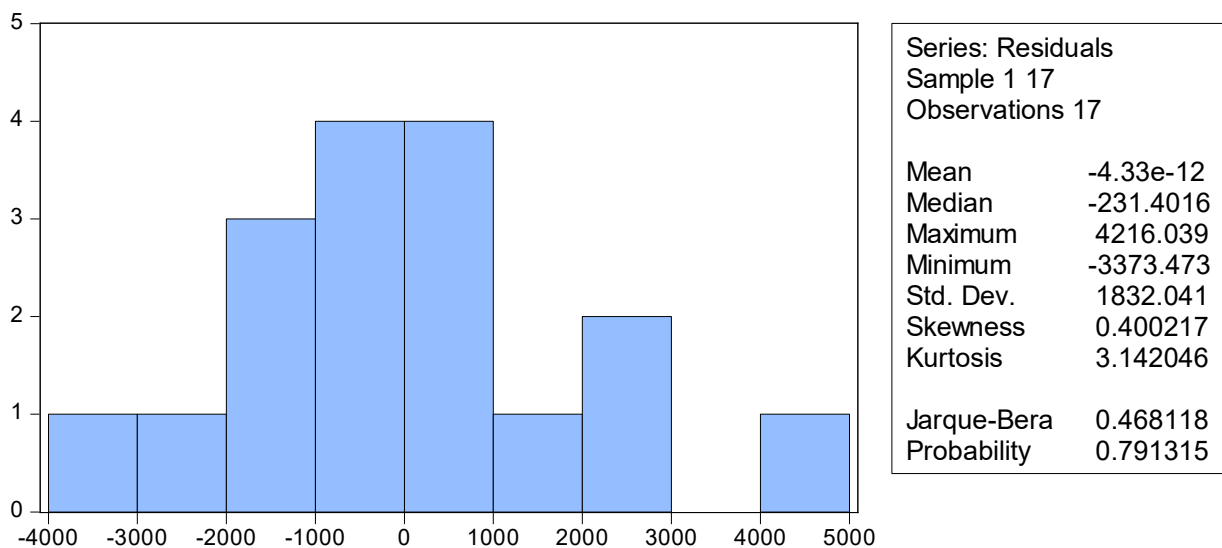
**Source: Author's Computation using E-view 7.0 (2017)**

The series distribution is normal as the P-value associated with JB- Jarque-Bera statistics is 0.791 which is greater that the critical value of 0.05.

Table 4.2.4: Serial Correlation Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.041321	Prob. F(2,10)	0.9597
Obs*R-squared	0.139340	Prob. Chi-Square(2)	0.9327

Source: Author's Computation using E-view 7.0 (2017)

The P-value of the F-statistics 0.041 is 0.959 which is greater that the critical value of 5%, we conclude by accepting H_0 that the residuals are not serially correlated.

Table 4.2.5:   Heteroskedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.318867	Prob. F(4,12)	0.8599
Obs*R-squared	1.633310	Prob. Chi-Square(4)	0.8028
Scaled explained SS	0.871630	Prob. Chi-Square(4)	0.9286

Source: Author's Computation using E-view 7.0 (2017)

The P-value of the observed R squared is 0.8028 which is greater than the critical value of 5%, meaning that the residuals are not heteroscedastic in nature.

Table 4.2.6: Stability Test

Ramsey RESET Test
Equation: UNTITLED
Specification: PAT C BND PRFS ORS DBT
Omitted Variables: Squares of fitted values

	Value	df	Probability
t-statistic	0.177368	11	0.8624
F-statistic	0.031459	(1, 11)	0.8624
Likelihood ratio	0.048550	1	0.8256

Source: Author's Computation using E-view 7.0 (2017)

The P-value of the F-stat of Ramsey Reset Test is 0.86224 which is greater than critical value of

5%, we conclude by accepting H_0 that the series is in functional form and it is structurally stable.

4.4.3 Unit Root Test

Table 4.2.7: Unit Root Test for Profit after Tax (PAT)

Null Hypothesis: D(PAT) has a unit root
Exogenous: Constant
Lag Length: 1 (Automatic - based on SIC, maxlag=3)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.300202	0.5983
Test critical values:	1% level	-4.004425	
	5% level	-3.098896	
	10% level	-2.690439	

*MacKinnon (1996) one-sided p-values.
Warning: Probabilities and critical values calculated for 20 observations
     and may not be accurate for a sample size of 14

Source: Author's Computation using E-view 7.0 (2017)

The Augmented Dicker Fuller test (ADF) at order 2(2) for PAT result is 1.300< 3.098 at 0.05

level of significance, this shows no stationarity rather presence of Unit Root in the series.

Table 4.2.8: Unit Root Test for Bond (BND)

Null Hypothesis: D(BND) has a unit root
Exogenous: Constant
Lag Length: 1 (Automatic - based on SIC, maxlag=3)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.858273	0.0130
Test critical values:	1% level	-4.004425	
	5% level	-3.098896	
	10% level	-2.690439	

Source: Author's Computation using E-view 7.0 (2017)

The Augmented Dicker Fuller test (ADF) at order 2(2) for BND result is 3.858 > 3.098 at 0.05 level of significance, this shows presence ofstationarity in the series.

Table 4.2.9: Unit Root Test for Preference Share (PRFS)

Null Hypothesis: D(PRFS) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=3)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-8.827736	0.0000
Test critical values:	1% level	-3.959148	
	5% level	-3.081002	
	10% level	-2.681330	

Source: Author's Computation using E-view 7.0 (2017)

The Augmented Dicker Fuller test (ADF) at order 2 (2) for PRFS result is 8.827 > 3.081 at 0.05

level of significance, this shows presence of stationarity in the series.

Table 4.2.10: Unit Root Test for Ordinary Share (ORS)

Null Hypothesis: D(ORS) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=3)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.511443	0.0006
Test critical values:	1% level	-3.959148	
	5% level	-3.081002	
	10% level	-2.681330	

*MacKinnon (1996) one-sided p-values.
Warning: Probabilities and critical values calculated for 20 observations
    and may not be accurate for a sample size of 15

Source: Author's Computation using E-view 7.0 (2017)

Again, at order 2 (2) for ORS result is 5.511> 3.081 at 0.05 level of significance, this shows

presence of stationarity in the series.

Table 4.2.11: Unit Root Test for Debenture (DBT)

Null Hypothesis: D(DBT) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=3)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.161900	0.0433
Test critical values:	1% level	-3.959148	
	5% level	-3.081002	
	10% level	-2.681330	

*MacKinnon (1996) one-sided p-values.
Warning: Probabilities and critical values calculated for 20 observations
and may not be accurate for a sample size of 15

Source: Author's Computation using E-view 7.0 (2017)

Again, at order 2 (2) for DBT result is 3.161> 3.081 at 0.05 level of significance, this shows

presence of stationarity in the series.

Table 4.2.12: Granger Causality Test

Pairwise Granger Causality Tests
Date: 07/27/17   Time: 19:22
Sample: 1 17
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
BND does not Granger Cause PAT	15	0.37935	0.6937
PAT does not Granger Cause BND		3.02937	0.0436
PRFS does not Granger Cause PAT	15	3.91111	0.0356
PAT does not Granger Cause PRFS		1.73889	0.2249
ORS does not Granger Cause PAT	15	0.20718	0.8163
PAT does not Granger Cause ORS		4.53678	0.0396
DBT does not Granger Cause PAT	15	2.56911	0.1258
PAT does not Granger Cause DBT		17.6997	0.0005

Source: Author's Computation using E-view 7.0 (2017)

BND and PAT

From the results, it can be seen that the P-value of BND and PAT is 0.6937 which is higher

than5% level of significance, while the P-value of PAT and BND is 0.0436 which is less than

5%level of significance. It connotes that BND does not granger cause PAT and PAT grange cause BND which shows existence of uni-directional effect because only one variable granger cause each other and BND and PAT has a short run effect.

PRFS and PAT

From the results, just like the above, it can be seen that the P-value of PRFS and PAT is 0.0356 which is less than 5% level of significance, while the P-value of PAT and PRFS is 0.2249 which is greater than 5% level of significance. It connotes that PRFS granger cause PAT and PAT does not grange cause PRFS which shows existence of uni-directional effect because only one variable granger cause each other and PRFS and PAT has a short run effect.

ORS and PAT

From the results, it can be seen that the P-value of ORS and PAT is 0.8163 which is greater than 5% level of significance, while the P-value of PAT and ORS is 0.0396 which is less than 5% level of significance. It connotes that ORS does not granger cause PAT and PAT grange cause ORS which shows existence of uni-directional effect because only one variable granger cause each other and ORS and PAT has a short run effect.

DBT and PAT

Again, there is uni-directional Granger Causality between Debenture and Profit after Tax of Deposit Money Banks in Nigeria, it can be observed from the result that debenture does not granger Cause Profit after Tax but Profit after Tax granger cause Debenture.

Table 4.2.13: Johansen Co-integration

Date: 07/27/17   Time: 19:24
Sample (adjusted): 2 17
Included observations: 16 after adjustments
Trend assumption: Linear deterministic trend
Series: PAT BND PRFS ORS DBT
Lags interval (in first differences):

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None	0.763299	54.43557	69.81889	0.4429
At most 1	0.596740	31.38023	47.85613	0.6460
At most 2	0.428902	16.84946	29.79707	0.6512
At most 3	0.365237	7.886338	15.49471	0.4776
At most 4	0.037665	0.614290	3.841466	0.4332

Source: Author's Computation using E-view 7.0 (2017)

Table 4.2.13 shows result for Johansen Co-integration test, it unveils that the trace statistics of all the independent variables (54.43, 31.38, 16.84, 7.88 and 0.61) are less than all the critical values at 5% (69.81, 47.85, 29.79, 15.49 and 3.84). There is enough evidence to accept Ho and conclude that the variables are not co-integrated at most1* to at most 5*. The probability associated with the trace statistic is all greater than 5% which connote non-existence of long term relationship between the dependent variable and independent variables.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1   Summary of Findings

The Ordinary Least Square (OLS) result shows the test of individual significant of each of the independent variables using the T-test and their respective P-values. The T-stat for Bond (BND), Ordinary shares (ORS) and Debenture (DBT) are 3.415, 5.035 and 3.929 with their respective P-value of 0.005, 0.000 and 0.002 which are all less than 0.05 significant level and greater than 95% Confidence level, it therefore implies that Bond, Ordinary shares and Debenture have significant Impact on the Performance of Deposit Money Banks in Nigeria. The T-stat for Preference Shares is 1.242 with a P-value of 0.237 which is greater than 5% significant level and less than 95% Confidence level which connotes that Preference Shares does not have significant Impact on Performance of Deposit Money Banks in Nigeria.

Globally, the results revealed that the whole Independent Variables have 99% Positive Impact to Profit After Tax of Deposit Money Banks in Nigeria, more so (Adjusted R^2) is 0.98 which suggest that 98% of the Independent Variables could be explained by the changes in the Dependent Variable and the remaining 2% could not be explained due to some error in the financial system. The Durbin Watson Test is 2.155, which revealed no presence of serial correlation and it is moderate for prediction. The P-value of the F-stat is 0.000 < 0.05 which falls to the rule of thumb. We reject H_0 and conclude that the whole Independent Variables (BND, PRFS, ORS andDBT) are significant to PAT of Deposit Money Banks in Nigeria.

The normality output result suggests that the series distribution is normal as the P-value is 0.791 which is greater than 5% significant level and desirable. We thereby accept H0 that the series is

normally distributed which further connote that the influence of other omitted and neglected variables is small and at best random.

For Serial Correlation Test the P-value of the F-statistics is 0.959 which is greater that the critical value of 5%, we conclude by accepting H_0 that the residuals are not serially correlated which is desirable and implies that each of the observations are independent of one another.

In HeteroskedasticityTest the P-value of the observed R-squared is 0.8028 which is greater than the critical value of 5%, therefore we accept null hypothesis H0 that the residuals are homoscedastic in nature which connote that they are of equal variance. Also the Stability Test result connotes that the model is in functional form and statistically stable.

Table 4.2.7-4.2.11 shows the Unit Root Test (Augmented Dicker Fuller Test (ADF) for Profit after Tax (PAT), Bond (BND), Preference share (PRFS), Ordinary share (ORS) and Debenture (DBT). Bond, Preference shares, Ordinary shares and Debenture was stationary at order 2 (2), while PAT was not stationary.

Causality Test is employed at the stage to know the causal relationship between the variables under study, the basis for conducting this test is to enable us know whether the independent variables can actually cause variations in the dependent variable or vice versa. From the results in table 4.2.12, generally there exists uni-directional granger causality among them. BND does not granger cause PAT while PAT granger cause BND, PRFS granger cause PAT while PAT does not granger cause PRFS, ORS does not granger cause PAT while PAT granger cause PRS, finally DBT does not granger cause PAT while PAT granger cause DBT.

The Johansen Co-integration result shows that the trace statistics of all the independent variables (54.43, 31.38, 16.84, 7.88 and 0.61) are less than all the critical values at 5% (69.81, 47.85, 29.79, 15.49 and 3.84). There is enough evidence to acceptH0 and conclude that the variables

are not co-integrated at most1* to at most 5*. The probability associated with the trace statistic is all greater than 5% which connote non-existence of long term relationship between the dependent variable and independent variables.

5.2   Conclusion

Capital Structure has been a major issue in financing economic transactions ever since Modigliani and Miller (1958) stated that given frictionless markets, homogeneous expectations; capital structure decision of the firm is irrelevant.

Based on the Summary of Findings, the following are the conclusion:

i.   The Ordinary Least Square (OLS) Test concludes that Bond (BND), Ordinary share (ORS) and Debenture (DBT) have significant impact on the Performance of Deposit Money Banks in Nigeria while Preference shares does not have significant Impact on Deposit Money Banks Performance.

ii.   The Diagnostic Test suggests that the series distribution is normal; we accept H0 which signifies that the influence of other omitted and neglected variables is small and at best random. For Serial Correlation Test, we accept H0 that the residuals are not serially correlated and it connotes that each of the observation are independent of one another. In Heteroskedasticity Test we accept the null hypothesis H0 that the residuals are homoscedastic which signify that they are of equal variance and finally the model is statistically stable as unveiled by the Stability Test.

iii.   For Unit Root Test, all the variables were stationary at order 2 1(2) except for Profit After Tax that was not stationary.

iv.   There exist uni-directional Granger Causality among BND and PAT, PRFS and PAT, ORS and PAT and DBT and PAT.

v.   The Johansen Co-integration test shows non-existence of long term relationship between the dependent variable and independent variables.

Capital Structure is an embodiment of various capital channels composed to equip companies' financial structure and to make returns on those funds raised by the companies from individuals, investors and government through selling of shares, bonds and other capital instruments. It is at this point, that this research focused on theImpact of Capital Structure and the Performance of Deposit Money Banks in Nigeria. Holistically the study conclude that capital structure have significant impact on the performance of Deposit Money Banks in Nigeria. This study is in line with Akinyomi (2013), Semiu and Collins (2015), Ong and Teh (2015).

5.3   Recommendations

The study proffers the following recommendations:

1.   The management of Nigerian banks' should consider the use of more debt in their Capital Structure mix as this will reduce the overall cost of capital as a result of its tax advantage. Moreover, increase bank financial performance.

2.   The management of quoted banks in Nigeria should increase the use of equity capital in financing to improve earnings of their banks; and Investors of quoted banks in Nigeria should also consider the capital structure of any bank before investing in them as the strength of a bank's capital mix determines the level of returns.

3.   The government and monetary authority should put policies in place to curb inflation in orderto avoid unanticipated inflation, since unanticipated inflation reduces banks debt ratios becausethe cost of borrowing will be very high.

4. The costs and risks associated with Bonds investment should be reduced in an absorptive manner by government. This can be done when government increases its share of fixed-rate bonds in the market with longer maturity. Moreover, information about the Bond market should be more widely disseminated to encourage more investors. In this direction, effort must be put in place to enhance confidence of the investors in Bonds market.

5. Management should ensure they continue to improve the level of bond, ordinary shares and debenture in order to mitigate future financial liquidation.

6. Deposit Money Banks in Nigeria should ensure Preference share-holders are always treated preferentially because of the fixed dividend attached to it and must be given attention to first before any other.

5.4   Contribution to knowledge

i.   The result of this study shows empirical evidence whichis capable of assisting management of firms in making sound decision on Capital Structure and adjusting or balancing debt to equity ratio to maintain an optimal level. Also the good understanding of the impact of capital structure individually will enhance sound capital structure decisions which will enhance the Performance of Deposit Money Banks in Nigeria.

ii.   The study also served as an opener to critical variables that positivelyaffected the performance of Deposit Money Banks in Nigeria and created insight to policy implementation capable of driving Bank's Performance.

5.5   Suggested Areas for Further Studies

The study suggested the following areas for further study:

i.   More variables like Returns on Asset and Returns on Equity should be used to measure the Performance of Deposit Money Banks in Nigeria.

ii.   Other determinants of Capital Structure other than Bonds, Ordinary Shares, Preference Shares and Debenture should be focused on.

iii.   More industries should also be looked at like manufacturing, petroleum etc in order to ascertain the effect of Capital Structure on them.

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APPENDIX

ORDINARY LEAST SQUARE

Dependent Variable: PAT
Method: Least Squares
Date: 07/27/17   Time: 19:17
Sample: 1 17
Included observations: 17

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	12959.67	2589.538	5.004625	0.0003
BND	8262.137	2418.703	3.415937	0.0051
PRFS	1170.912	942.1213	1.242846	0.2377
ORS	0.000380	7.54E-05	5.035446	0.0003
DBT	7819.632	1990.106	3.929254	0.0020

R-squared	0.985920	Mean dependent var	47078.70
Adjusted R-squared	0.981227	S.D. dependent var	15439.79
S.E. of regression	2115.459	Akaike info criterion	18.39186
Sum squared resid	53701986	Schwarz criterion	18.63692
Log likelihood	-151.3308	Hannan-Quinn criter.	18.41622
F-statistic	210.0756	Durbin-Watson stat	2.155694
Prob(F-statistic)	0.000000		

Estimation Command:
=========================
LS PAT C BND PRFS ORS DBT

Estimation Equation:
=========================
PAT = C(1) + C(2)*BND + C(3)*PRFS + C(4)*ORS + C(5)*DBT

Substituted Coefficients:
=========================
PAT = 12959.6659233 + 8262.13716498*BND + 1170.91172713*PRFS + 0.00037980926877*ORS + 7819.63191355*DBT

NORMALITY TEST

Series: Residuals	
Sample 1 17	
Observations 17	
Mean	-4.33e-12
Median	-231.4016
Maximum	4216.039
Minimum	-3373.473
Std. Dev.	1832.041
Skewness	0.400217
Kurtosis	3.142046
Jarque-Bera	0.468118
Probability	0.791315

SERIAL CORRELATION TEST

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.041321	Prob. F(2,10)	0.9597
Obs*R-squared	0.139340	Prob. Chi-Square(2)	0.9327

Test Equation:
Dependent Variable: RESID
Method: Least Squares
Date: 07/27/17   Time: 19:18
Sample: 1 17
Included observations: 17
Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-117.8551	2975.177	-0.039613	0.9692
BND	60.14335	2749.943	0.021871	0.9830
PRFS	19.03558	1187.181	0.016034	0.9875
ORS	-1.68E-05	0.000109	-0.153809	0.8808
DBT	139.6349	2230.979	0.062589	0.9513
RESID(-1)	0.120012	0.428391	0.280145	0.7851
RESID(-2)	-0.003152	0.417834	-0.007544	0.9941

R-squared	0.008196	Mean dependent var	-4.33E-12
Adjusted R-squared	-0.586886	S.D. dependent var	1832.041
S.E. of regression	2307.852	Akaike info criterion	18.61892
Sum squared resid	53261820	Schwarz criterion	18.96201
Log likelihood	-151.2608	Hannan-Quinn criter.	18.65303
F-statistic	0.013774	Durbin-Watson stat	2.193396
Prob(F-statistic)	0.999981		

HETEROSKEDASTICITY TEST

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.318867	Prob. F(4,12)	0.8599
Obs*R-squared	1.633310	Prob. Chi-Square(4)	0.8028
Scaled explained SS	0.871630	Prob. Chi-Square(4)	0.9286

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 07/27/17   Time: 19:19
Sample: 1 17
Included observations: 17

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7241477.	6404321.	1.130717	0.2803
BND	-5891874.	5981821.	-0.984963	0.3441
PRFS	1512623.	2330009.	0.649192	0.5284
ORS	0.074560	0.186543	0.399691	0.6964
DBT	3015213.	4921834.	0.612620	0.5516

R-squared	0.096077	Mean dependent var	3158940.
Adjusted R-squared	-0.205231	S.D. dependent var	4765630.
S.E. of regression	5231851.	Akaike info criterion	34.01836
Sum squared resid	3.28E+14	Schwarz criterion	34.26342
Log likelihood	-284.1560	Hannan-Quinn criter.	34.04272
F-statistic	0.318867	Durbin-Watson stat	2.654468
Prob(F-statistic)	0.859948		

RAMSEY RESET TEST

Ramsey RESET Test
Equation: UNTITLED
Specification: PAT C BND PRFS ORS DBT
Omitted Variables: Squares of fitted values

	Value	df	Probability
t-statistic	0.177368	11	0.8624
F-statistic	0.031459	(1, 11)	0.8624
Likelihood ratio	0.048550	1	0.8256

F-test summary:

	Sum of Sq.	df	Mean Squares
Test SSR	153146.7	1	153146.7
Restricted SSR	53701986	12	4475166.
Unrestricted SSR	53548840	11	4868076.
Unrestricted SSR	53548840	11	4868076.

LR test summary:

	Value	df	

Restricted LogL	-151.3308	12	
Unrestricted LogL	-151.3065	11	

Unrestricted Test Equation:
Dependent Variable: PAT
Method: Least Squares
Date: 07/27/17   Time: 19:20
Sample: 1 17
Included observations: 17

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	13742.80	5175.835	2.655185	0.0224
BND	7339.410	5781.700	1.269421	0.2305
PRFS	1250.068	1079.208	1.158320	0.2713
ORS	0.000341	0.000233	1.464828	0.1710
DBT	7473.172	2850.226	2.621957	0.0237
FITTED^2	7.92E-07	4.46E-06	0.177368	0.8624

R-squared	0.985961	Mean dependent var	47078.70
Adjusted R-squared	0.979579	S.D. dependent var	15439.79
S.E. of regression	2206.372	Akaike info criterion	18.50665
Sum squared resid	53548840	Schwarz criterion	18.80073
Log likelihood	-151.3065	Hannan-Quinn criter.	18.53588
F-statistic	154.5023	Durbin-Watson stat	1.725238
Prob(F-statistic)	0.000000		

UNIT ROOT TEST

PAT

Null Hypothesis: D(PAT) has a unit root
Exogenous: Constant
Lag Length: 1 (Automatic - based on SIC, maxlag=3)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.300202	0.5983
Test critical values:	1% level	-4.004425	
	5% level	-3.098896	
	10% level	-2.690439	

*MacKinnon (1996) one-sided p-values.
Warning: Probabilities and critical values calculated for 20 observations
    and may not be accurate for a sample size of 14

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(PAT,2)
Method: Least Squares
Date: 07/31/17   Time: 14:00
Sample (adjusted): 4 17

Included observations: 14 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(PAT(-1))	-0.862236	0.663155	-1.300202	0.2201
D(PAT(-1),2)	0.526238	0.434375	1.211482	0.2511
C	2346.059	2092.184	1.121344	0.2860

R-squared	0.143354	Mean dependent var	-337.8507
Adjusted R-squared	-0.012400	S.D. dependent var	1225.009
S.E. of regression	1232.581	Akaike info criterion	17.25902
Sum squared resid	16711810	Schwarz criterion	17.39596
Log likelihood	-117.8131	Hannan-Quinn criter.	17.24634
F-statistic	0.920388	Durbin-Watson stat	1.288821
Prob(F-statistic)	0.426980		

BND

Null Hypothesis: D(BND) has a unit root
Exogenous: Constant
Lag Length: 1 (Automatic - based on SIC, maxlag=3)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.858273	0.0130
Test critical values:	1% level	-4.004425	
	5% level	-3.098896	
	10% level	-2.690439	

*MacKinnon (1996) one-sided p-values.
Warning: Probabilities and critical values calculated for 20 observations
        and may not be accurate for a sample size of 14

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(BND,2)
Method: Least Squares
Date: 07/31/17   Time: 13:53
Sample (adjusted): 4 17
Included observations: 14 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(BND(-1))	-1.526750	0.395708	-3.858273	0.0027
D(BND(-1),2)	0.425319	0.270600	1.571762	0.1443
C	0.187317	0.077232	2.425367	0.0337

R-squared	0.622818	Mean dependent var	0.002384
Adjusted R-squared	0.554239	S.D. dependent var	0.341511
S.E. of regression	0.228011	Akaike info criterion	0.068562
Sum squared resid	0.571878	Schwarz criterion	0.205503
Log likelihood	2.520066	Hannan-Quinn criter.	0.055886
F-statistic	9.081819	Durbin-Watson stat	2.131545
Prob(F-statistic)	0.004688		

PREFERENCE SHARE (PRFS)

Null Hypothesis: D(PRFS) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=3)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-8.827736	0.0000
Test critical values:	1% level	-3.959148	
	5% level	-3.081002	
	10% level	-2.681330	

*MacKinnon (1996) one-sided p-values.
Warning: Probabilities and critical values calculated for 20 observations
       and may not be accurate for a sample size of 15

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(PRFS,2)
Method: Least Squares
Date: 07/31/17   Time: 13:55
Sample (adjusted): 3 17
Included observations: 15 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(PRFS(-1))	-1.504731	0.170455	-8.827736	0.0000
C	0.335108	0.111658	3.001185	0.0102

R-squared	0.857031	Mean dependent var	0.119759
S.D. dependent var	1.075484	S.E. of regression	0.422004
Akaike info criterion	1.235963	Sum squared resid	2.315138
Schwarz criterion	1.330370	Log likelihood	-7.269721
Hannan-Quinn criter.	1.234957	F-statistic	77.92892
Durbin-Watson stat	0.940133		

ORDINARY SHARE (ORS)

Null Hypothesis: D(ORS) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=3)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.511443	0.0006
Test critical values:	1% level	-3.959148	
	5% level	-3.081002	
	10% level	-2.681330	

*MacKinnon (1996) one-sided p-values.
Warning: Probabilities and critical values calculated for 20 observations

and may not be accurate for a sample size of 15

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(ORS,2)
Method: Least Squares
Date: 07/31/17   Time: 13:57
Sample (adjusted): 3 17
Included observations: 15 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(ORS(-1))	-1.397743	0.253607	-5.511443	0.0001
C	2916657.	1686087.	1.729838	0.1073

R-squared	0.700295	Mean dependent var		98269.33
Adjusted R-squared	0.677241	S.D. dependent var		10953001
S.E. of regression	6222607.	Akaike info criterion		34.24884
Sum squared resid	5.03E+14	Schwarz criterion		34.34325
Log likelihood	-254.8663	Hannan-Quinn criter.		34.24784
F-statistic	30.37601	Durbin-Watson stat		1.979708
Prob(F-statistic)	0.000100			

DEBENTURE (DBT)

Null Hypothesis: D(DBT) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=3)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.161900	0.0433
Test critical values:	1% level	-3.959148	
	5% level	-3.081002	
	10% level	-2.681330	

*MacKinnon (1996) one-sided p-values.
Warning: Probabilities and critical values calculated for 20 observations
and may not be accurate for a sample size of 15

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(DBT,2)
Method: Least Squares
Date: 07/31/17   Time: 13:59
Sample (adjusted): 3 17
Included observations: 15 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(DBT(-1))	-0.882419	0.279079	-3.161900	0.0075
C	0.116587	0.070155	1.661857	0.1205

R-squared	0.434724	Mean dependent var		-0.008512
Adjusted R-squared	0.391241	S.D. dependent var		0.287577
S.E. of regression	0.224377	Akaike info criterion		-0.027417

Sum squared resid	0.654483	Schwarz criterion	0.066990
Log likelihood	2.205624	Hannan-Quinn criter.	-0.028422
F-statistic	9.997609	Durbin-Watson stat	1.588164
Prob(F-statistic)	0.007498		

GRANGER CAUSALITY

Pairwise Granger Causality Tests
Date: 07/27/17   Time: 19:22
Sample: 1 17
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
BND does not Granger Cause PAT	15	0.37935	0.6937
PAT does not Granger Cause BND		3.02937	0.0436
PRFS does not Granger Cause PAT	15	3.91111	0.0356
PAT does not Granger Cause PRFS		1.73889	0.2249
ORS does not Granger Cause PAT	15	0.20718	0.8163
PAT does not Granger Cause ORS		4.53678	0.0396
DBT does not Granger Cause PAT	15	2.56911	0.1258
PAT does not Granger Cause DBT		17.6997	0.0005
PRFS does not Granger Cause BND	15	2.08551	0.1750
BND does not Granger Cause PRFS		0.05764	0.9443
ORS does not Granger Cause BND	15	1.65554	0.2393
BND does not Granger Cause ORS		3.55861	0.0681
DBT does not Granger Cause BND	15	0.96556	0.4136
BND does not Granger Cause DBT		7.98765	0.0085
ORS does not Granger Cause PRFS	15	0.09385	0.9112
PRFS does not Granger Cause ORS		0.37346	0.6976
DBT does not Granger Cause PRFS	15	5.68527	0.0224
PRFS does not Granger Cause DBT		1.00750	0.3994
DBT does not Granger Cause ORS	15	1.84441	0.2081
ORS does not Granger Cause DBT		3.83345	0.0581

Johansen Co-integration

Date: 07/27/17   Time: 19:24
Sample (adjusted): 2 17
Included observations: 16 after adjustments
Trend assumption: Linear deterministic trend
Series: PAT BND PRFS ORS DBT
Lags interval (in first differences):

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None	0.763299	54.43557	69.81889	0.4429
At most 1	0.596740	31.38023	47.85613	0.6460
At most 2	0.428902	16.84946	29.79707	0.6512
At most 3	0.365237	7.886338	15.49471	0.4776
At most 4	0.037665	0.614290	3.841466	0.4332

 Trace test indicates no cointegration at the 0.05 level
 * denotes rejection of the hypothesis at the 0.05 level
 **MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None	0.763299	23.05534	33.87687	0.5262
At most 1	0.596740	14.53077	27.58434	0.7843
At most 2	0.428902	8.963118	21.13162	0.8354
At most 3	0.365237	7.272048	14.26460	0.4575
At most 4	0.037665	0.614290	3.841466	0.4332

 Max-eigenvalue test indicates no cointegration at the 0.05 level
 * denotes rejection of the hypothesis at the 0.05 level
 **MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegrating Coefficients (normalized by b'*S11*b=I):

PAT	BND	PRFS	ORS	DBT
0.000419	-4.702507	-0.202988	-2.36E-07	-1.156412
-0.000180	-2.340553	1.498829	1.12E-07	2.724046
-0.000208	1.647862	-0.911751	7.75E-08	4.346404
0.000303	-3.921366	-0.675616	-1.64E-09	-2.396081
-3.64E-05	-1.535794	-0.113433	8.41E-11	1.042953

Unrestricted Adjustment Coefficients (alpha):

D(PAT)	68.14272	-23.42886	-316.1760	-303.7796	200.9077
D(BND)	-0.004877	0.096162	-0.027213	0.079935	0.019302
D(PRFS)	0.007056	-0.153059	0.296901	0.084930	0.068591
D(ORS)	5151900.	-983002.7	-184071.2	-92720.39	-207275.9
D(DBT)	-0.088920	-0.093900	-0.067394	0.013865	0.014013

1 Cointegrating Equation(s):   Log likelihood   -403.8482

Normalized cointegrating coefficients (standard error in parentheses)

PAT	BND	PRFS	ORS	DBT
1.000000	-11214.29	-484.0760	-0.000564	-2757.751
	(1645.82)	(634.811)	(5.1E-05)	(1337.85)

Adjustment coefficients (standard error in parentheses)

D(PAT)	0.028574	
	(0.13997)	
D(BND)	-2.05E-06	
	(2.4E-05)	
D(PRFS)	2.96E-06	
	(7.0E-05)	
D(ORS)	2160.354	
	(373.270)	
D(DBT)	-3.73E-05	
	(2.1E-05)	

2 Cointegrating Equation(s):   Log likelihood   -396.5828

Normalized cointegrating coefficients (standard error in parentheses)

PAT	BND	PRFS	ORS	DBT
1.000000	0.000000	-4113.431	-0.000592	-8483.710
		(900.064)	(8.2E-05)	(1912.62)
0.000000	1.000000	-0.323637	-2.49E-09	-0.510595
		(0.07921)	(7.2E-09)	(0.16832)

Adjustment coefficients (standard error in parentheses)

D(PAT)	0.032797	-265.6051
	(0.15232)	(1752.98)
D(BND)	-1.94E-05	-0.202137
	(2.3E-05)	(0.26402)
D(PRFS)	3.05E-05	0.325062
	(7.4E-05)	(0.84934)
D(ORS)	2337.515	-21926074
	(388.186)	(4467502)
D(DBT)	-2.04E-05	0.637925
	(1.9E-05)	(0.22081)

3 Cointegrating Equation(s):   Log likelihood   -392.1012

Normalized cointegrating coefficients (standard error in parentheses)

PAT	BND	PRFS	ORS	DBT
1.000000	0.000000	0.000000	-0.000454	-19907.58
			(0.00015)	(2913.43)
0.000000	1.000000	0.000000	8.36E-09	-1.409402
			(1.3E-08)	(0.24943)
0.000000	0.000000	1.000000	3.35E-08	-2.777212
			(3.4E-08)	(0.66637)

Adjustment coefficients (standard error in parentheses)

D(PAT)	0.098498	-786.6196	239.3256
	(0.16191)	(1777.34)	(570.169)
D(BND)	-1.37E-05	-0.246980	0.169931
	(2.5E-05)	(0.27379)	(0.08783)

D(PRFS)	-3.12E-05	0.814313	-0.501542
	(7.1E-05)	(0.77560)	(0.24881)
D(ORS)	2375.765	-22229398	-2351302.
	(425.811)	(4674340)	(1499525)
D(DBT)	-6.36E-06	0.526870	-0.061243
	(1.9E-05)	(0.20910)	(0.06708)

4 Cointegrating Equation(s):	Log likelihood	-388.4652

Normalized cointegrating coefficients (standard error in parentheses)

PAT	BND	PRFS	ORS	DBT
1.000000	0.000000	0.000000	0.000000	-28866.99
				(2993.02)
0.000000	1.000000	0.000000	0.000000	-1.244364
				(0.14998)
0.000000	0.000000	1.000000	0.000000	-2.115305
				(0.38988)
0.000000	0.000000	0.000000	1.000000	-19744018
				(3720131)

Adjustment coefficients (standard error in parentheses)

D(PAT)	0.006553	404.6114	444.5639	-4.28E-05
	(0.18303)	(2112.01)	(590.849)	(8.5E-05)
D(BND)	1.05E-05	-0.560433	0.115926	9.73E-09
	(2.6E-05)	(0.30356)	(0.08492)	(1.2E-08)
D(PRFS)	-5.45E-06	0.481273	-0.558921	3.99E-09
	(8.1E-05)	(0.93980)	(0.26292)	(3.8E-08)
D(ORS)	2347.701	-21865807	-2288659.	-1.342558
	(497.140)	(5736485)	(1604822)	(0.23172)
D(DBT)	-2.16E-06	0.472498	-0.070611	5.21E-09
	(2.2E-05)	(0.25550)	(0.07148)	(1.0E-08)