

**EFFECT OF BANK SPECIFIC VARIABLES ON FINANCIAL
PERFORMANCE OF QUOTED DEPOSIT MONEY BANKS IN
NIGERIA**

BY

**ABDULLAHI, BASHIR ISAH
NSU/ADM/MSC/ACC/030/14/15
M.Sc. ACCOUNTING AND FINANCE**

**BEING A DISSERTATION SUBMITTED TO THE SCHOOL OF
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NIGERIA**

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DECLARATION

I hereby declare that this dissertation has been written by me and it is a report of my research work. It has not been presented in any previous application for M.Sc. Degree in Accounting and Finance. All quotations are indicated and sources of information specifically acknowledged by means of references.

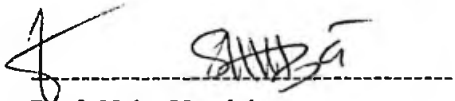
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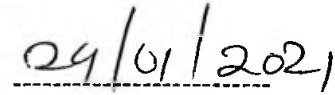
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The Dissertation entitled, "Effect of Bank Specific Variables on Financial Performance of Quoted Deposit Money Banks in Nigeria" meets the regulations governing the award of Master of Science (MSc) Degree in Accounting and Finance, of the School of Postgraduate Studies, Nasarawa State University, Keffi and is approved for its contribution to knowledge and literary presentation.



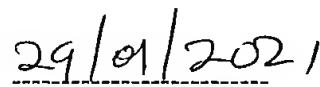
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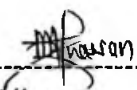
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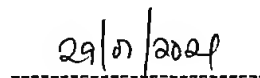
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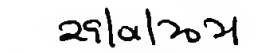
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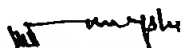
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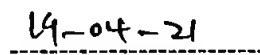
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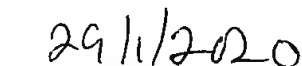
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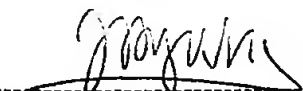
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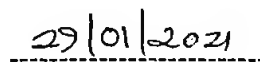
Prof. Aliyu Suleiman Kantudu
External Examiner



Date



Prof. Jonathan M. Ayuba
Dean, School of Postgraduate Studies



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DEDICATION

This research work is dedicated to God Almighty the fountain of knowledge and wisdom.

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ABSTRACT

Profitability is one of the major concerns of most businesses without which continuity is often difficult. In the case of banking sector, the case is more pronounced since banks could hardly function when they are not making profits. This study examines the effects of bank specific variables on financial performance of quoted Deposit Money Banks in Nigeria. Descriptive and ex-post facto research designs were used for the study. The population of the study is the fifteen (15) quoted DMBs in Nigeria as at 2016. Panel regression analysis was used on panel data collected from the CBN Statistical Bulletin and the Annual Reports and Accounts of the sampled banks for the period spanning through 2007-2016. The study utilizes Capital adequacy ratio, liquidity ratio, credit growth ratio, nonperforming loans ratio, Network Embeddedness, and bank size and regressed against profitability measured using Return on Asset (ROA). It was found that capital adequacy ratio and nonperforming loans have significant negative effects on financial performance of DMBs in Nigeria. On the other hand, liquidity, credit growth network embeddedness and bank size have negative but insignificant effect financial performance of DMBs in Nigeria. The study recommends among others that, quoted DMBs in Nigeria should ensure the effective utilization of their resources for profit generation and putting in place stringent control measures to reduce cases of nonperforming loans for better profitability

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The fundamental responsibility of banks in any economy is the provision of funds to finance the economic activities. To this end, the growth and development of any nation's economy can be said to be determined by a sound and viable financial services sector, especially the banking industry. Banks basically intermediate between the savers and borrowers of money, and they perform a significant role in deposits transformation to financial assets which involves the mobilization of funds from the surplus units to the deficit's units of the economy for effective use (Chirwa & Mlachilla, 2004). Furthermore, Chirwa and Mlachilla (2004) argue that banks help in assessing information quality by way of screening the borrowers as well as monitoring their activities in financial system as a result of information disconnect or asymmetric. This can further be argued that profitability in the financial system is quite an attribute of efficiency and effectiveness in the system which could be achieved when there is a significant flow of funds from the savers to borrowers. As a debtor or a creditor in the Nigerian economic system, relating with banks is indispensable to be effective in your operations because of their intermediating role, since banks are considered to be the sole provider of funds. Thus, their stability guarantees the stability of the nation's economy, and understanding the factors that determine banks profitability is key to mitigate a nation's economic predicament.

Financial system stability is guaranteed when banking sector is profitable and liquid since it will be able to better withstand negative shocks. Financial institution profitability is affected by both internal and external factors that shape the earnings performance of organization.

Nigeria has witnessed consolidation exercise in the years 2004 and 2005 where mergers and acquisitions had become the regulatory options. Therefore, the reduction in the number of banks from eighty-nine banks to twenty-five banks is attributable to the exercise. Furthermore, the Deposit Money Banks in Nigeria have recorded considerable growth and development in recent years owing to the exercise (consolidation) instituted by the Central Bank of Nigeria (CBN) in 2005, which makes it mandatory for all DMBs in Nigeria to have a minimum capital requirement of 25 billion naira as shareholders' fund. CBN argued that, the policy has brought in unparalleled growth in the operations of banks in Nigeria. It is pertinent to note that, between 2006 and 2009, total deposit liabilities moved up by 65%, total asset by 148%, loan and advances 225%, and capital and resources 192%. However, by June 2009, a shock signal went through the banking sector after a special examination (stress-test) by CBN which revealed serious mismanagement of depositors' money as loans were granted out to customers without collateral, non-booking of nonperforming loans and creative accounting practices among many other very serious malpractices by management of some of these banks. To this end, concerted effort by the CBN has been taken by injecting about N620 billion as bailout to some of the distressed banks.

Banking sector determinants of profitability are well observed and explored because of their importance in strengthening the foundations of local financial system as a way to build up flexibility for capital flow volatility. In the past, researchers investigated the determinants of profitability in the banking sector. Some of the banks' specific variables used in previous studies are: capital (leverage) ratio, credit risk, bank operating cost, liquidity, network embeddedness, and size of the bank (see, Smirlock, 1985; Stienherr & Huvneers, 2004).

While a lot of studies have focused on bank profitability in an attempt to segregate the factors that account for variation in bank profitability, other studies put concerted efforts to link banks' earnings and different aspects of banks' operating performance to profitability.

Furthermore, a good number of studies (Ana, Blanka & Roberto, 2011; Aremu, Ekpo & Mudashiru, 2013; Berger, 1995) looked at the nexus between banks' earnings performance and balance sheet structure, and profitability. Other part of the literature (Alper & Anbar, 2011) assessed the effects of regulatory and macroeconomic variables on banks' profitability. However, conclusion was drawn from the previous studies that, profitability of banks is mostly explained by internal variables/factors. Thus, this study examines bank specific factors that affect the profitability of banks in Nigeria.

1.2 Statement of the Problem

Profitability is one of the major concerns of most businesses without which continuity is often difficult. In the case of banking sector, the case is more pronounced since banks could hardly function when they are not making profits. The perception of Nigerians on Deposit Money Banks is that of making super profits (see, *The Determinants of Commercial Bank Profitability in Sub-Saharan Africa* Valentina Flamini, Calvin McDonald and and Liliana Schumacher, 2009). They put forward that, in Sub-Saharan Africa, Deposit Money Banks are seemed to be highly profitable as a good percentage of average return on assets over the last 10years have been recorded, which is believed to be higher than other part of the world's profits. Thus, examining factors that attract banks' profitability has become so interested to academic researchers, bank management, financial markets as well as bank regulators. A good number of studies have been conducted on determinants of bank profitability which ranges from the early work of Short (1979). Furthermore, studies on individual countries include Smirlock

(1985), Berger (1995), Naceur (2003), Kosmidou, Tanna & Pasiouras, (2004), Dietrich and Wanzenried (2009). The works of Moulyneux and Thornton (1992), Goddard, Molyneux and Wilson (2004), AlHashimi (2007), Demirguc – Kunt and Huizinga (2000) and Heffernan and Fu (2008) focus on panel of countries.

This study follows the foot step of single country studies such as Dietrich and Wanzenried (2009), Naceur (2003) and Smirlock (1985), and anchors specifically on the work of Ani, Ugwunta, Ezeudu & Ugwayi (2012) which employ only banks' specific variables. They argued that, internal factors are management controllable factors and, explained a large proportion of banks' profitability. It is pertinent to note that, the work of Aburime (2009) which focused on both internal and macroeconomic variables and that of Aremu et al. (2013) who employed bank specific, financial structure and macroeconomic variables on one bank as sample could have said to have done justice to this area of study, but their studies was limited to only one bank cannot be said to be generalized to other banks. More so their study was limited to 2013 and giving the reality of time, the need for further study in the area is indispensable. This study therefore, intends to fill these gaps identified in literature by looking at the entire quoted Deposit Money Banks in Nigeria within the most recent time frame that spans through 2007-2016. Thus, this study dwells on bank specific factors such as capital adequacy ratio, nonperforming loans, deposit mobilization, liquidity, credit growth and bank size on banks' profitability by applying panel regression analysis.

1.3 Research Questions

This study raises the following research questions to be answered for the purposes of achieving the objectives of the study:

- i. What is the effect of Capital Adequacy Ratio on Profitability of Quoted Deposit Money Banks in Nigeria?
- ii. How does Liquidity Ratio affect Profitability of Quoted Deposit Money Banks in Nigeria?
- iii. What is the effect of Credit Growth on Profitability of Quoted Deposit Money Banks in Nigeria?
- iv. What is the effect of non-performing Loans on Profitability of Quoted Deposit Money Banks in Nigeria?
- v. What is the effect of Deposit Mobilization on Profitability of Quoted Deposit Money Banks in Nigeria?
- vi. What is the effect of Bank Size on profitability of Quoted Deposit Money Banks in Nigeria?

1.4 Objectives of the Study

The general objective of this study is to examine the effects of bank specific variables on the profitability of Quoted Deposit Money Banks in Nigeria. The specific objectives are to:

- i. examine the effect of Capital Adequacy Ratio on Profitability of Quoted Deposit Money Banks in Nigeria.

- ii. assess the effect of Liquidity on Profitability of Quoted Deposit Money Banks in Nigeria.
- iii. evaluate the effect of Credit Growth on Profitability of Quoted Deposit Money Banks in Nigeria.
- iv. examine the effect of Nonperforming Loans on Profitability of Quoted Deposit Money Banks in Nigeria.
- v. assess the effect of Deposit Mobilization on Profitability of Quoted Deposit Money Banks in Nigeria.
- vi. examine the effect of Bank Size on profitability of Quoted Deposit Money Banks in Nigeria.

1.5 Statement of Hypotheses

Based on the Objectives, and Statement of the Problem following hypotheses as formulated below:

H0₁: Capital Adequacy has no significant effect on profitability of Quoted Deposit Money Banks in Nigeria

H0₂: Liquidity has no significant effect on profitability of Quoted Deposit Money Banks in Nigeria

H0₃: Credit Growth has no significant effect on profitability of Quoted Deposit Money Banks in Nigeria

H0₄: Nonperforming Loans has no significant effect on profitability of Quoted Deposit Money Banks in Nigeria

CHAPTER TWO

LITERATURE REVIEW

2.1 Conceptual Framework

2.1.1 Concept of Bank Specific Variables

Bank specific variables are those factors that emanated from banks' financial statement (balance sheets and/or profit and loss accounts), hence can be termed bank specific, internal or micro determinants of profitability. Variables which are used as proxy to represent these determinants are loans, size, capital, nonperforming loans, deposits, operating cost, leverage and liquidity. Thus, management controllable or internal determinants are factors that are influenced by banks' management decision (Vong & Chan, 2005).

According to Demirgür – Kunt and Huizinga (1999), bank size (log of total assets) or larger banks are better placed than smaller banks in harnessing economic of scale in transactions to the main effect that they will tend to enjoy a higher level of profit. Their study suggests that the level to which different financial, legal and other factors (e.g. corruption) affect profitability of banks is directly connected to size of the firm. On the view of Short (1979), bank size is argued to be closely linked to the capital adequacy, since comparatively big banks have a propensity to raise less expensive capital than the smaller ones and hence, appear more profitable than the smaller ones. However, there are other schools of thought who argued that increase in total assets of the banks can save cost which in turn will enhance the banks' profitability. Akhavein, et. al., (1997) and Smirlock (1985) argue that the relationship between bank size and profitability is positive and significant. This position was supported in the findings of Bikker and Hu (2002) and Goddard, et. al. (2004). There is an inverse relationship between size and profitability as reported by Boyd and Runkel (1993). Similarly, Miller and

Noulas (1997) in the USA, Naceur (2003) in Tunisia and Jiang, et. al. (2003) in Hong Kong made similar conclusion from their respective study's findings.

Capital strength, a unit investment trust that seeks above average capital appreciation by investing in a portfolio of well-capitalized companies with strong balance sheets: Is measured by the ratio of equity to total asset (Golin, 2001). It is expected that the higher the ratio, the lower the need for external finance and hence the higher the profit ability of the bank. Furthermore, a well-capitalized bank faces lower cost of going bankrupt which reduces its cost of finance. Kosmidou et al (2004). Demirgür – Kunt and Huizinga (1999) remarked that bank's capital is the ultimate line of defense against the risk of technical insolvency. Berger (1995) study of US banks revealed a positive relationship between bank profitability and capital. Ramlall (2009) reported that profitability of Taiwanese banks capital trails behind a positive impact with a 1% change in capital resulting in about 8% change in profitability. The positive effect of capital on profitability shows that by having more capital, a bank can easily extend more loans thereby earning more income from interest on the loan granted.

The need for risk management in the banking sector is inherent in the nature of banking business. Poor asset quality and low levels of liquidity are the two major causes of bank failures. Risks faced by banks can be divided into liquidity and credit risk (Athanasoglou, et. al., 2006).

Credit risk: This can be described as the risk that an asset or a loan becomes irrevocable in the case of outright default or the risk of delay in paying the loan. In either case the present value of the asset declines, which may lead to insolvency of a bank. According to Bessis (2002) credit risk is basic and fundamental to solvency of any bank.

Liquidity risk: It is very important for a bank to carefully guard against liquidity risk – the risk of not having sufficient liquid asset to meet obligations from depositors especially during time of economic stress counseled (Golin, 2001). However, liquid assets have a very low rate of return. Liquidity is usually represented by ratio of liquid assets to customer deposits. Kosmidou, et. al., (2004) reported positive relationship between liquidity and return on asset (ROA) which is consistent with Bourke (1989). However, Moulyneux and Thorton (1992) and Guru, et. al., (1999) find a negative relationship between liquidity and profitability. Therefore, there is no definite and clear cut conclusion on the effect of liquidity on bank profitability.

There have been many researches on bank specific variables and bank profitability, and almost all the studies found leverage, capitalization, bank operating cost, networks, bank size and liquidity to be the specific variables that affect bank profitability (see Bourke, 1989; Bashir, 2000; Karasulu, 2001; Guru, Staunton & Balashanmugam, 2002; Staikouras & Wood, 2003; Naceur, 2003).

The determinants of profitability are empirically well explored although the definition of profitability varies among studies. Disregarding the profitability measures, most of the banking studies have noticed that the capital (leverage) ratio, loan-loss provisions, liquidity, deposits, expense control, market capitalization, inflation, and gross domestic products are important drivers of high profitability. In this study, the drivers that would be considered are endogenous (internal) drivers or factors of Profitability. Internal drivers of bank performance or profitability can be defined as factors that are influenced by a bank's management decisions. Such management effects will definitely affect the operating results of banks. Although a quality management leads to a good bank performance, it is difficult, if not impossible, to

assess management quality directly. In fact, it is implicitly assumed that such a quality will be reflected in the operating performance. As such, it is not uncommon to examine a bank's performance in terms of those financial variables found in financial statements, such as the balance sheet and income statement (Krasah & Ameyaw, 2010).

Thus, the term 'Leverage' may be defined as the percent of change in one variable by the percent of change in some other variable or variables. In the field finance management, the term leverage is used to describe the firm's ability to use fixed cost assets or funds; the former is popularly known as 'Operating Leverage' and the latter is known as 'Financial Leverage'. In the worlds of James Horne, 'Leverage may be defined as the employment of an asset or funds for which the firm pays a fixed cost or fixed return. Thus, according to him, a leveraged firm employs assets or sources of funds which have a fixed cost or return. The former may be termed as 'fixed operating cost', while the latter may be termed as 'fixed financial cost'. The leverage is also described by some as 'trading on equity'.

According to business dictionary, liquidity is a measure of the extent to which a person or organization has cash to meet immediate and short-term obligations or assets that can be quickly converted to do this. Liquidity can also be a measure of the ability and ease with which assets can be converted to cash. Liquid assets are those that can be converted to cash quickly if needed to meet financial obligations; examples of liquid assets generally include cash, central bank reserves and government debt. To remain viable, a financial institution must have enough liquid assets to meet its short-term obligations, such as withdrawals by depositors.

According to GARP (2013), liquidity can further be termed as a bank's capacity to fund increase in assets and meet both expected and unexpected cash and collateral obligations at a reasonable cost and without incurring unacceptable losses. Also, liquidity is a financial term that means the amount of capital that is available for investment. Today, most of this capital is credit, not cash. Bank Liquidity simply means the ability of the bank to maintain sufficient funds to pay for its maturing obligations. It is the bank's ability to immediately meet cash, cheques, other withdrawals obligations and legitimate new loan demand while abiding by existing reserve requirements. Meanwhile, there have been varying reports on the relationship between bank liquidity and profitability. Some argue, per their research findings, that banks holding more liquid assets benefit from a superior perception in funding markets, reducing their financing costs and increasing profitability.

2.1.2 Concept of Financial Performance

There is no universally recognized definition of Financial Performance; the concept of Financial performance has many meanings, as it is perceived by different users. There are still debates among several disciplines regarding how the performance of a firm can be measured and the factors that affect financial performance of companies (Liargovas & Skandalis, 2008). Performance is success, performance is the result of an action, and performance is a state of competitiveness of the company, achieved through a level of effectiveness and efficiency that ensures a sustainable market presence. Performance also depends on the level of achievement of a company's strategic objectives, based on the creation of value, productivity and business effectiveness. Firm performance is actually achieved by balancing and merging the four forces, the efficiency of production processes, satisfying shareholders, ensuring customer satisfaction and company growth and development capacity, degree of innovation and use of opportunities.

A company can be categorized as a global performance if it can satisfy the interests of all stakeholders. For example, managers are interested in the welfare and to obtain it, because their work is appreciated accordingly. Owners want to maximize their wealth by increasing the company's market value; current and potential shareholders perceive performance as the company's ability to distribute dividends for capital investment, given the risks they take. Commercial partners look for the solvency and stability of the company; credit institutions want to be sure that the company has the necessary capacity to repay loans on time a stable job and to obtain high material benefits. Finally, the state seeks company to be efficient, to pay its taxes, to help creating new jobs, and so on.

According to Hansen and Mowen (2005), financial performance is very essential to management, as it is an outcome which has been achieved by an individual or a group of individuals in an organisation related to its authority and responsibility in achieving the goal legally, not against the law and conforming to the morale and ethics. Performance is the function of the ability of an organisation to gain and manage the resources in several different ways to develop competitive advantages.

In respect to a manufacturing company, financial performance can be measured in term of 'increase in revenue, increase production capacity, reduction in cost of production, improvement in operating cycle, increase and improved market share, increase asset base, and increase profitability. These performances are quite different from the non-measurable and non-monetary performance, such as increase in community relationship impact, reduction in staff turnover, and so on.

One of the common tools used in the measurement of financial performance is the financial ratio. Financial ratio analysis is an important analytical tool which provides managers with executive's important insights regarding overhead cost structure, ability to raise capital, adequacy of working capital and contingency reserves, and efficient use of assets through the evaluation of a set of financial ratios, observations of trend in those ratios, and compared to average values for other companies in the industry (Rabo, 2008). Ratio analysis helps to determine the performance of liquidity, profitability and solvency position of economic units and it provides valuable assistance to management in fixing any challenge that might have arisen (Periasamy, 2005).

Almajali et al (2012) argued that there are various measures of financial performance. For instance, return on sales reveals how much a company earns in relation to its sales, return on assets explain a firm's ability to make use of its assets and return on equity reveals what return investors take for their investments. Company's performance can be evaluated in three dimensions. The first dimension is company's productivity, or processing inputs into outputs efficiently. The second is profitability dimension, or the level of which company's earnings are bigger than its costs. The third dimension is market premium, or the level at which company's market value is exceeds its book value (Walker, 2001).

Cohen, Chang & Ledford (1997) measured accounting returns using Return on Assets (ROA). They indicated that return on assets (ROA) is widely used by market analysts as a measure of financial performance, as it measures the efficiency of assets in producing income. The most used accounting measures of financial performance is Return on Assets (ROA) (McGuire *et al.*, 1988; Russo and Fouts, 1997; Stanwick and Stanwick, 2000; Clarkson *et al.*, 2008), Return

on Equity (ROE) (Bowman & Haire, 1975), and Return on Sales (ROS) (Stanwick & Stanwick, 1998).

Profitability connotes a situation where the income generated during a given period exceeds the expenses incurred over the same length of time for the sole purpose of generating income (Banwo, 1997; Sanni, 2006). The fundamental requirements here are that the income and the expenses must occur during the same period of time (“Matching Concept”) and the income must be a direct consequence of the expenses. The period of time may be one week, three months, one-year etc (Sabo, 2007). It is immaterial whether the income has been received in cash or not is it compulsory that the expenses must have been paid in cash. For a profit-oriented organization, profit is the soul of business. The importance of profitability, therefore, stems from its being the “raison d’etre” (purpose) of business.

A company remains in operation because it expects to make profits. Once that expectation is confirmed unattainable, the most rational decision is to close shop or exit the business. Three indicators, namely: Net Interest Margin (NIM), Return on Assets (ROA) and Return on Equity (ROE) were identified by Ahmed (2003) to be widely employed in the literature to measure profitability. However, there are divergent views among scholars on the superiority of one indicator over the others as a good measure of profitability. For instance, Goudreau and Whitehead (1989) and Uchendu (1995) believed that the three indicators are all good. Hancock (1989) used only ROE to measure profitability in her study. Also, Odufulu (1994) used only the gross profit margin in measuring profitability. Ogunleye (1995) did not believe that profit level per se could constitute a good Measure of profitability and therefore used ROA and ROE. Profitability measures, according to Akinola (2008) include Profit Before Tax (PBT), Profit After Tax (PAT), ROE, Rate of Return on Capital (ROC) and ROA. Sanni (2009) used

Earnings Per Share (EPS). For this study, we shall limit profitability to the three widely used measures namely Return on Asset (ROA), Return on Equity (ROE) and Net Interest Margin (NIM). Thus, the study used return on assets (ROA) as a measure of financial performance.

2.2 Empirical Studies

2.2.1 Capital Adequacy and Financial Performance

Capital adequacy ratio is measured by the ratio of equity capital to total risk weighted assets. This is sometimes referred to as capital structure in some literatures. Bank equity capital can be seen in two dimensions as stated by Aburime (2008) the amount contributed by the owners of a bank (paid-up share capital) that gives them the right to enjoy all the future earnings and the amount of owners' funds available to support a bank's business which includes reserves, and is also termed as total share holders' funds. Bank's capital is widely used as one of the determinants of bank profitability since it indicates the financial strength of the bank (Athanasoglou *et al.*, 2005). Aburime (2008) suggest that the bank level of safety is achieved through the high capital requirements which generated positive net benefits. The degree of security exceeded the level maximizing the net benefits. Capital adequacy requirements generally aim to increase the stability of a national banking system by decreasing the likelihood of a bank failure and a number of negative externalities that exist in banking that cause risk to systematically under price.

Athanasoglou *et al.* (2005) study the effects of bank - specific, industry – specific and macroeconomic determinants of profitability on Greek bank from the period 1985 – 2001, based on the empirical frame work that incorporates the traditional structure – conduct – performance (SCP) hypothesis. Applying General Movement Method (GMM) and used panel data, the investigation demonstrated that there exists a positive correlation between returns and

capital. Another study conducted by Flamini, McDonald and Schumacher. (2009) on the determinants of commercial banks profitability in Sub – Saharan Africa (SSA) by taking 389 sample banks in 41 SSA countries, they measured profitability by return on asset indicator. They found that capital adequacy has positive and significant effect on profitability. Berger (1995) found that capital adequacy ratio affects ROA of USA banks positively for the period 1983-1989 and negatively in 1989-1992. Based on these results, Berger argued that the relationship between capital adequacy ratio and profitability depends on the specific circumstances of the time period observed. According to the results of the study, a high capital adequacy ratio positively affects profitability when financial situation of banks is perceived as risky and it negatively affects profitability in normal situations due to alternative cost of capital. The main problem in benefiting from this result is the difficulty of determining an optimal level for the capital adequacy ratio.

Similar studies conducted on developing countries found and concluded that, capital adequacy is a significant determinant of profitability. Naceur and Goaid (2001) investigated the impact of bank- specific, industry- specific and macroeconomic determinants of banks' net interest margins and return on asset on the Tunisian banking industry for the period of 1980-2000. The result shows that high net interest margin and return on asset (profitability) tend to be associated with banks that hold a relatively high amount of capital.

Also, Aburime (2008) examine company level determinants of bank profitability evidence in Nigeria. The study use a panel data set consists of 91 observations of 33 banks over the 2000 – 2004 periods. Regression analysis was used and the study revealed that capital size is one of the significant company level determinants of profitability. Though the results indicate that capital size is a significant determinant of bank profitability in Nigeria, only the size of the

reserves component of bank capital has a significant relationship with bank profitability. But the shares component of bank capital does not have a significant relationship.

Belayneh (2011) study the determinants of commercial banks profitability in Ethiopia for the period 2001 – 2010 by used Ordinary Least Square (OLS) and balanced panel data of seven Ethiopian commercial banks. The result of the estimation show that capital significantly affect commercial banks profitability. Following this, he concluded that there is positive relationship between banks capital and profitability. The study also concludes that the higher the capital level, the higher is the. Based on the above studies a positive relationship should exist between capital adequacy and profitability of banks.

Malimi (2017) examines the influence of capital adequacy, profitability, and loan growth on nonperforming loans of banks in Tanzania. Secondary data collected from the banks in Tanzania were used for the period of Ten (10) years spanning through 2005 to 2014. The study utilises industrial ratios such as Return on Assets (ROA) to measure profitability, capital adequacy ratio (CAR) as a proxy core capital to TRWA, and gross nonperforming loans to gross loans to measure nonperforming loans ratio. The study found from the regression result that, banking ratios as reported by supervisory authority of Tanzania bank was used and found that commercial banks have strong capital adequacy ratio greater than 10% required by the threshold. It was also found that capital adequacy ratio and profitability posed insignificant effects of nonperforming loans, whereas loans to assets ratio and interest margin had a significant relationship.

Martynova (2015) examines the effect capital requirements of bank on economic growth in Netherlands. The study utilizes structural model and found little evidence of a direct effect of

capital on economic growth. More so, an indirect effects of prudential capital requirement on supply of credit, cost of capital of the bank and assets risk were revealed, which consequently affects the economic growth. High prudential capital requirement can reduce supply of credit as well as decrease the demand of credit by raising the rate of lending which may show down economic growth and thereby reducing the profitability of banks.

Aspal and Nazneen (2014) analyse capital adequacy in the Indian private sector banks in 2014. The study examines whether bank specific performance factors particularly loans, assets quality, management efficiency, liquidity and sensitivity have impacts on capital adequacy requirements among private sector banks in India. Secondary source of data collection was used and the data were collected from accounts and annual reports of the sampled banks covering the period of five (5) years spanning through 2008 to 2012. the study utilizes multiple regression analysis to explain the effects of lending proxied by total loans and advances to assets quality. Furthermore, management efficiency was measured by expenditure to income, liquidity by liquid assets to total assets and sensitivity by risk sensitivity assets less risk sensitivity liabilities on CAR. It was found from the regression result that, a negative correlation exists between CAR and profitability and lending (loans), as well as assets quality and management efficiency. More so, significant relationship exists between liquidity, loan, management efficiency and sensitivity and CAR.

Ikpefan (2013) assesses the adequacy of capital, performance and management in the commercial banks of Nigeria for the period of twenty-one (21) years spanning through 1986 to 2006. The study utilizes cross sectional time series data (panel data) covering the period 1986-2006. The data were collected from CBN Bulletin, annual reports and financial statements of the sampled banks. The population of the study is all the commercial banks in

Nigeria which are twenty-four (24) as at 2008. Sampled of fourteen (14) banks were selected from the old and new generation banks using stratified and random sampling techniques. Ordinary least square method of regression was used, and found that capital adequacy ratio in terms of shareholders' funds to total assets has a negative impact on return on assets. It was also found that efficiency of management in terms of operating expenses indicates negative relationship with return on capital employed.

2.2.2 Liquidity and Financial Performance

The role of liquidity in ensuring business successes cannot be overemphasized. Firm should ensure that it does not suffer from lack-of or excess liquidity to meet its short-term compulsions. A study of liquidity is of major importance to both the internal and the external analysts because of its close relationship with day-to-day operations of a business (Bhunia, 2010). Dilemma in liquidity management is to achieve desired tradeoff between liquidity and profitability (Raheman et al, 2007).

Velnampy (2013) examines the impact of corporate governance on firm performance" with the samples of 28 manufacturing companies using the data representing the periods of 2007 – 2011 found that determinants of corporate governance are not correlated to the performance measures of the organization. Regression model showed that corporate governance don't affect companies' ROE and ROA. It is revealed that corporate governance measures are not correlated with performance measures.

Walt (2009) argues that profitability is more relevant to liquidity because profit can usually be turned into a liquid asset, and that liquidity is also important but does not mean that the company is profitable. Don (2009) while acknowledging the relative importance of both,

submits that liquidity is more important because it has to do with the immediate survival of the company.

The relationship between liquidity and profitability is controversial. The findings of some studies suggest that liquidity and profitability are negatively related while others assert a positive relationship. The proposition of a negative relationship was investigated by M. Deloof (2003) using cash conversion cycle to study the effect of liquidity on profitability. In Contrast, Samiloglu and Demirgunes used three variables namely: account receivable, inventory and cash conversion cycles to study the relationship between liquidity and profitability and concludes it is negative.

This conclusion was also supported by Zariyawati, Annuar, Taufiq and Rahim (2009) amongst others. On the other hand, Padachi (2006) noted a positive relation between liquidity and profitability. The debate was further exacerbated by some researchers who argue that relationship between liquidity and profitability might be both positive and negative. Narware (2004) for instance using account receivable, inventory, accounts payables, cash conversion cycles and current ratio investigated the liquidity influence on the firm's profitability and concluded that the nature of relationship is different and a function of the liquidity variables.

Velnampy (2006) examines the financial position of the companies and the impact of financial position on profitability with the sample of 25 public quoted companies in Sri Lanka by using the Altman Original Bankruptcy Forecasting Model. His findings suggest that, out of 25 companies only 4 companies are in the condition of going to bankrupt in the near future. He also found that, earning/total assets ratio, market value of total equity/book value of debt ratio and sales/total assets in times are the most significant ratios in determining the financial position of the quoted companies.

The study found (Eljelly, 2004) significant negative relationship between the firm's profitability and liquidity levels as measured by current ratio, and that the relationship is more evident in firms with high current ratios and longer cash conversion cycles. The study also found that at industry level, however, the cash conversion cycle or cash gap is of more importance as a measure of liquidity than current ratio that affects profitability. The size variable is also found to have significant effect on profitability at industry level. Similarly, in his study, Jose et al (1996) showed that day-to-day management of a firm's short-term assets and liabilities plays an important role in the success of the firm. Firms with glowing long-term prospects and healthy bottom lines do not remain solvent without good liquidity management. Velnampy (2005) appraises investment and profitability of toddy bottling project in Sri Lanka. He found that, the management of the project failed to achieve the budgetary results. Even though, the Net Present Value (NPV), Internal Rate of Return (IRR) and benefit cost ratio shows the project as worthwhile. Another study of Velnampy (2005) found the same results in Kanchipuram Modern rice Mill. In a study to measure the effect of working capital management on the net operating profitability and liquidity, Raheman and Nasr (2007) selected a sample of 94 Pakistani firms listed on Karachi Stock Exchange for a period of 6 years, and found that there is a strong negative relationship between variables of working capital management and profitability of the firms. The study also shows a significant negative relationship between liquidity and profitability, and that a positive relationship exists between size of the firm and its profitability. Also, there is a significant negative relationship between debt used by the firm and its profitability. Variables used in their analysis included average collection period, inventory turnover in days, average payment period, cash conversion cycle, current ratio, debt ratio, size of the firm and financial assets to total assets ratio.

Velnamby and Nimalathasan. (2009) examine the nexus between organizational growth and profitability of Commercial bank ltd in Sri Lanka over the period of 10 years from 1997 to 2006. They found that, sales are positively associated with profitability ratios except operating profit, return on equity and number of depositors are negatively correlated to the profitability ratios except operating profit and return on equity. Likewise, number of advances is also negatively correlated to the return on average shareholders' funds.

Garaz-Teruel and Martinez-Solano (2007) equally used sample of small and medium-sized Spanish firms to study the effects of working capital management on their profitability, their findings was that, managers stands the chance of creating value by reducing the inventories, and the number of days in which their accounts are outstanding. They equally uncover that the shorter the cash conversion cycle the higher the firm`s profitability.

However, Filbeck and Krueger (2005) examine the impact of working capital on performance. The study found a significant difference in working capital measures between different industries across time, and therefore employ that firm`s should device a means of reducing financing costs, and the funds tied up in current assets. In addition to that, Chakraborty (2008) studied the relationship between working capital management and profitability of Indian pharmaceutical companies. He concludes a two school of thoughts. The first is that, working capital itself is not a factor of improving profitability, hence there may be a negative relationship between them, the second being that it is the investment in working capital even at minimum level, the sales and output cannot be maintained, and will keep fixed assets inoperative.

Narware (2004) examine the effects of working capital management on profitability of NFL, a fertilizer company found both positive and negative association. Bardia (2004) and Sur and

Ganguly (2001) in their study on steel giant SAIL and aluminum producing industry believed that, there is a positive association between liquidity and profitability and this observation tallies with the observation derived by Narware (2004).

In Nigeria, Adebayo et al. (2011) examine the impact of liquidity management on commercial banks profitability. The study concluded that a significant relationship exists between liquidity and profitability, thus banks profitability is determined by their level of liquidity management.

In a similar study, on the impact on financial ratio on profitability, Saleem and Rehman (2011) found that financial ratios have significant effect on the financial positions of enterprises with differing amounts and liquidity accounts for the differing amount.

Tabar et al (2013) examine the effect of liquidity risk on the performance of commercial banks using of panel data related to commercial banks of Iran during the years 2003 to 2010. They concluded that; bank's size, bank's asset, gross domestic product and inflation will improve the performance of banks while credit risk and liquidity risk will cause to weaken the performance of bank.

Ferrouhi (2014) examines the impact of bank liquidity on financial performance in Moroccan banks during the period 2001 to 2012. Using four banks they employed a panel data analysis to estimate the relationship between liquidity and performance. The study noted that Moroccan bank's performance is mainly determined by 7 determinants: liquidity ratio, size of banks, logarithm of the total assets squared, external funding to total liabilities, share of own bank's capital of the bank's total assets, foreign direct investments, unemployment rate and the realization of the financial crisis variable.

Bareikaite, and Martinkutė-Kaulienė (2014) assess the position of Lithuanian banks towards liquidity risk, and favorable position towards liquidity and explores the liquidity influence to

profitability in Lithuanian banking sector. The study concluded that Banks should ensure that the demand and supply of liquidity should be managed appropriately so as to ensure increase in profitability and performance.

Alzorqan (2014) examine the impact of bank liquidity risk on performance in Jordan. The study regarded liquidity risk as an endogenous determinant of bank performance, and apply panel data instrumental variables regression to estimate the impact of liquidity risk on banks performance. The study established that there is a significant relationship between Loan-Network Embeddedness, current ratio and banks performance.

Alshatti (2015) examine the effect of the liquidity management on profitability in the Jordanian commercial banks during the time period (2005–2012). Thirteen banks have been chosen to express on the whole Jordanian commercial banks. The liquidity indicators are investment ratio, Quick ratio, capital ratio, net credit facilities/ total assets and liquid assets ratio, while return on equity (ROE) and return on assets (ROA) were the proxies for profitability.

Qasim Saleem and Ramiz Ur Rehman (2011) assess the relationship between the liquidity ratio and profitability. The study is conduct between the years's 2004 and 2009 and later than collecting data about the financial positions as a result of annual activities and the related ratios of 26 enterprises per year which is traded on the Pakistan. Wang (2002) examine the relationship between liquidity and operating performance and using the sample firms for the period of 17 years it was found that liquidity management would improve the firm worth and its operating performance. They examined the association between profitability and the information system taking the sample. Performance was measured by return on assets and the author found that information system did not enhance the performance of the firm. (Zhang, 2011).A study had been done to investigate impact of working capital management on

profitability and market valuation of Pakistani firms. The author found that there was a positive relationship total debt to total assets and profitability but negative relation between cash conversion cycle and profitability (ROA). (Alam, Ali, Akram, Rehman, 2011).

Garcia-Teruel and Martinez-Solano (2007) examine the effects of working capital management on the profitability of a sample of small and medium-sized Spanish firms. They found that managers can create value by reducing their inventories and the number of days for which their accounts are outstanding. Moreover, shortening the cash conversion cycle also improves the firm's profitability.

Raheman and Nasr (2007) examine the effects of Working Capital Management on profitability of Ninety Four (94) Pakistanian companies listed on Karachi Stock Exchange. Between their findings, it was observed a significant negative relationship between companies' liquidity and profitability. According to Raheman and Nasr (2007) "Leverage means funds take from outsider parties' likes banks, capital market, money market and other financial institutions". If a business is leveraged, we can say that firm takes loans to purchase assets. made the research of ninety-four firms listed in KSE and take the results on WCM and profitability. He judged that there is the indirect correlation among profitability and WCM. In addition, they founded that leverage and liquidity have indirect correlation with WCM but size of the firm has direct relationship with profitability.

Haron (2004) by applying panel regression on panel data with inclusion of binary/dummy variables in the study determinants of Islamic bank profitability found that liquidity had a significant positive relationship with total income received and profit, which is contrary to the findings of Guru, Stanton and Shanmugan (1999) examines the determinants of commercial

banks profitability in Malaysia where they found that liquidity has a negative relationship with profit though not very significant. Haron (2004) also found no significant relationship between liquidity and profitability measures which were deflated against total capital and reserves. They also found a positive relationship between capital structure and profitability measures which were deflated against total asset. Capital structure has no significant relationship with total income which implies that additional capital cannot generate more income for banks. Guru *et.al* found expense management to be a main contributor to profitability performance in Malaysian banks. Also capital adequacy, inflation, loan component and investment in securities were found to have positive and significant impact on profitability. On the contrary, there was found to be a negative but statistically significant correlation between capital ratio, loan, discount rate, investment securities, share deposit, size of the banks of banks and profitability. While, deposits, interest expense, bank risk and bank reputation maintain a positive and significant relationship with profitability of US banking industry during the period 1995-2007 (Hoffmann, 2011).

Bashir (2003) examines the determinants of profitability in Islamic banks; evidence from Middle East, through panel regression analysis for fourteen Islamic banks between the year 1993 to 1998 found that capital adequacy, risk indicators, GDP, inflation and loan has strong, positive and robust link with profitability, but the relationship of capital adequacy, loan total asset with profitability is statistically insignificant. Contrarily, in Tunisian banks via balanced panel regression, capital adequacy, overhead to asset ratio, loan to asset post a significant and positive influence on profitability and GDP, inflation, size and non-interest-bearing asset ratio are insignificant in determining the profitability of Tunisian banks, though size has the most negative relationship with bank's profitability (Naceur, 2003). In conjunction with the findings

of Naceur (2003), Kusa and Ongore (2013) examine the determinants of financial performance of commercial banks in Kenya using panel regression on panel data and it was found that capital adequacy and management efficiency has significant and positive relationship with return on asset (ROA), return on equity (ROE) and Net interest margin (NIM), which are all profitability measures. Inflation and asset quality also post a negative influence on profitability. While, GDP, liquidity management has positive but insignificant relationship with profitability measures except for GDP who had a positive but also insignificant influence on Net Interest Margin (NIM).

Andrea (2012) examines the determinants of bank profitability in USA covering the period spanning through 2007-2011, and found from the regression result that cost to income ratio, funding cost, loan loss provision and leverage had a negative but significant influence on bank's return on asset (ROA), while interest income share had positive and significant influence on financial performance of banks in USA. Also, Awo and Akoteye (2011) found in the study financial performance of rural banks in Ghana, specifically a case study of NAARA Rural bank that liquidity, size and loan have a positive and significant relationship with profitability at 95% confidence level. (see also Haron, 2004). While, non-performing loan is significant but negatively related to financial performance. Similarly, in the study bank specific and macroeconomic determinants of Turkey commercial bank profitability by Alper and Anbar (2011), bank size was found to be positively and significantly related to ROA and ROE, while loan to asset ratio has a negative but significant impact on profitability. Macro economic variables are not found to have a significant impact on ROA and no relationship at all with ROE.

regression results of their analysis show that, there is a negative association between loans and advances and profitability. Ebaid (2009) investigated the impact of loan growth on firm performance. Multiple regression analysis was used to estimate the relationship between the firm loans and performance. The author found that credit growth had a weak relationship with the firm performance.

Velnamby and Nimalathan. (2009) examine the nexus between organizational growth and profitability of Commercial bank Ltd in Sri Lanka over the period of 10 years from 1997 to 2006. They found that, sales are positively associated with profitability ratios except operating profit, return on equity and number of depositors are negatively correlated to the profitability ratios except operating profit and return on equity. Likewise, number of advances is also negatively correlated to the return on average shareholders' funds.

Kargi (2011) evaluated the impact of credit risk on the profitability of Nigerian banks. Financial ratios as measures of bank performance and credit risk are collected from the annual reports and accounts of sampled banks from 2004-2008 and analyzed using descriptive, correlation and regression techniques. The findings reveal that credit risk management has a significant impact on the profitability of Nigerian banks. It concludes that banks' profitability is inversely influenced by the levels of loans and advances, non-performing loans and deposits thereby exposing them to great risk of illiquidity and distress.

2.2.4 Nonperforming Loans (Credit Risk) and Financial Performance

Kargi (2011) examines the impact of credit risk on the profitability of banks in Nigeria. The study utilizes financial ratios as measures of bank performance and credit risk are collected from the annual reports and accounts of sampled banks from 2004-2008 and analyzed using

descriptive, correlation and regression techniques. The findings reveal that credit risk management has a significant impact on the profitability of Nigerian banks. It concludes that banks' profitability is inversely influenced by the levels of loans and advances, non-performing loans and deposits thereby exposing them to great risk of illiquidity and distress.

Al-Khouri (2011) examines the effect of bank's specific risk variables, and the overall banking environment on the performance of 43 commercial banks operating in 6 of the Gulf Cooperation Council (GCC) countries over the period spanning through 1998 to 2008. Using fixed effect regression analysis, results show that credit risk, liquidity risk and capital risk are the major factors that affect bank performance when profitability is measured by return on assets while the only risk that affects profitability when measured by return on equity is liquidity risk.

Hosna, Manzura and Juanjuan (2009) examine the effect of credit risk on the profitability of commercial banks in Sweden, taking 4 banks as sample and collected the necessary data from different sources like bank annual report of the banks from 2000-2009. The study uses multiple regression for analyzes and it was found that credit risk affects profitability of those banks significantly.

Ben-Naceur and Omran (2008) examine the influence of bank regulations, concentration, financial and institutional development on commercial banks' margin and profitability in Middle East and North Africa (MENA) countries from 1989 to 2005 and found that bank capitalization and credit risk have positive and significant impact on banks' net interest margin, cost efficiency and profitability. Felix and Claudine (2008) assess the effect of credit risk on bank financial performance. It could be inferred from their findings that return on equity (ROE) and return on assets (ROA) both measuring profitability were inversely related to the ratio of

non-performing loan to total loan of financial institutions thereby leading to a decline in profitability.

Ahmad and Ariff (2007) examine the determinants of credit risk of commercial banks on emerging economy banking systems compared with the developed economies. The study finds that regulation is important for banking systems that offer multi-products and services; management quality is critical in the cases of loan-dominant banks in emerging economies. An increase in loan loss provision is also considered to be a significant determinant of potential credit risk. The study further highlights that credit risk in emerging economy banks is higher than that in developed economies.

Ahmed, Takeda and Shawn (1998) argue that loan loss provision has a significant positive influence on non-performing loans. Therefore, an increase in loan loss provision indicates an increase in credit risk and deterioration in the quality of loans consequently affecting bank performance adversely. Similarly, Goodhart (2009) reports a positive and significant relationship between credit risk management (i.e. capital to risk-weighted average) and return on assets (ROA). This indicates that with effective management of credit risk the chances of return on assets will be high.

Naburgi (2012) assesses the impact of nonperforming loans on bank's profitability and liquidity on a cross sectional panel data of five ailing banks (Oceanic Bank, Intercontinental Bank, Afribank, First Inland Bank and Union Bank) in Nigeria for the period of ten years spanning through 2001-2010. The regression results reveal significant negative relationship between nonperforming loans, and return on assets (ROA) and liquidity.

Epure and Lafuente (2012) assess bank performance in the presence of risk for Costa-Rican banking industry spanning through 1998-2007. The results show that performance

improvements follow regulatory changes and that risk explains differences in banks and non-performing loans negatively affect efficiency and return on assets while the capital adequacy ratio has a positive impact on the net interest margin.

Kolapo, Ayeni and Oke (2012) examine the impact of credit risk on financial performance which was done by carrying out an empirical investigation into the quantitative effect of credit risk on the performance of commercial banks in Nigeria over the period of 11 years (2000-2010). Five commercial banking firms are selected on a cross sectional basis for eleven years. The traditional profit theory is employed to formulate profit, measured by Return on Asset (ROA), as a function of the ratio of Non-performing loan to loan & Advances (NPL/LA), ratio of Total loan & Advances to Total deposit (LA/TD) and the ratio of loan loss provision to classified loans (LLP/CL) as measures of credit risk. Panel model analysis is used to estimate the determinants of the profit function. The results show that the effect of credit risk on bank performance measured by the Return on Assets of banks is cross-sectional invariant. That is the effect is similar across banks in Nigeria, though the degree to which individual banks are affected is not captured by the method of analysis employed in the study. A 100 percent increase in non-performing loan reduces profitability (ROA) by about 6.2 percent, a 100 percent increase in loan loss provision also reduces profitability by about 0.65percent while a 100 percent increase in total loan and advances increase profitability by about 9.6 percent.

Chen and Pan (2012) examine the credit risk efficiency of 34 Taiwanese commercial banks over the period 2005-2008. Their study uses financial ratio to assess the credit risk and is analyzed using Data Envelopment Analysis (DEA). The credit risk parameters are credit risk technical efficiency (CR-TE), credit risk allocative efficiency (CR-AE), and credit risk cost efficiency (CR-CE). The results indicate that only one bank is efficient in all types of

efficiencies over the evaluated periods. Overall, the DEA results show relatively low average efficiency levels in CR-TE, CR-AE and CR-CE in 2008.

Tibebu (2011) examines the effect of credit risk management on profitability of commercial banks in Ethiopia in general. The study argues that credit risk management has significant impact on profitability of banks in Ethiopia using multiple regression models by taking 10 years Returns on Equity (ROE) as dependent variable and NPLR and CAR as independent variables from each bank in addition to the distributed questionnaires to the authorized bodies in the risk management position of each bank.

2.2.5 Deposit Mobilization and Financial Performance

This section provides the relevant empirical review related to the study of deposit mobilization and financial performance in commercial banks. According to Gockel and Brow (2007), Bank Deposit is money placed into a banking institution for safe keeping. Bank deposits are made to deposit accounts at a banking institution, such as savings accounts, checking accounts and money market accounts. The account holder has the right to withdraw any deposited funds, as set forth in the terms and conditions of the account. The deposit itself is a liability owed by the bank to the depositor (the person or entity that made the deposit), and refers to this liability rather than to the actual funds that are deposited. A Bank Deposit is generally made when opening an account or in the course of routine business or personal transactions that involve placing funds with the bank for future use. Bank deposits can be made in a number of different ways. The most direct way is to walk into a bank or a bank branch in which you hold an account. Bank deposit is done by filling in a Bank Deposit slip with the particulars of your account and the amount of money you wish to deposit. Bank Deposits can be made via wire transfer, as well as through a direct deposit plan from employers in many cases.

According to Kazi (2012), in banking sector, deposit mobilization is a scheme intended to encourage customers to deposit more cash with the bank and this money in turn will be used by the bank to disburse more loans and generate additional revenue for them. The main business for banks is accepting deposits and granting loans. The more the loans the banks disburse the more profit they make. Also, banks do not have a lot of their own money to give as loans. They depend on customer deposits to generate funds for granting loans to other customers. Traditionally, customers of banks walk to the banking premises to deposit money. This method of savings mobilization is not able to mop up enough savings. The World Development Report, (2008), in response to the problem of inability to mobilize enough savings, many banks has devised mechanisms of generating savings. Among the mechanisms for savings mobilization identified by bank's include moving from shop to shop to collect daily deposits, sending agents to economic zones to mobilize savings, among others. It is evident that the bank uses a number of mechanisms to mobilize savings. Apart from the traditional of mobilizing savings where customers walk to the bank to save, there are other ways through which the bank mobilizes savings. In addition, the bank moves from shop to shop to collect deposits. This mode of mobilizing savings is done through special arrangement with the customer. Customers who qualify must have a high sales turnover.

According to Laura, Alfred, Sylvia (2009), to mobilize more deposits, financial institutions offer a range of savings products that are tailored to their particular clientele. They offer the widest variety of specialized savings products, so that their customers have a choice between immediately accessible, liquid products, or semi-liquid accounts or time deposits with accordingly higher interest rates. Simple and clear design of basic savings products enables depositors to easily select the product that best suits their needs. The simple and transparent

design of the savings products also enables staff to administer them with ease, reducing administrative costs.

According to Tanzi, (2013), Fiscal policy relates government revenue to its expenditure. In most developing countries, taxation is the main source of government revenue and the effectiveness of which rests on its ability to generate required revenue and support investment. Taxation is often defined as „the levying of compulsory contributions by public authorities having tax jurisdiction, to defray the cost of their activities. Ali-Nakyea, (2008) said that, no specific reward is gained by the tax payer. The money collected is used for the common good of the citizenry -for the production of certain services, as aforesaid, which are considered to be more efficiently provided by the State rather than by individuals e.g. maintenance of law and order at home, and defense against external enemies, etc. According to Katang and Ntui (2008), in the most basic terms, commercial banks take deposits from individual and institutional customers, which they then use to extend credit to other customers. They make money by earning more in interest from borrowers than they pay in interest to those whose deposits they accept. They are different from investment banks and brokerages in that those kinds of institutions focus on underwriting, selling, and trading corporate and municipal. Therefore, one of the most important ways leading to financial performance is the effective use of deposit mobilized extended to customers as generation of interest.

Prasantha (1997) assesses the Performance of Public Sector Commercial Banks. The study evaluated the performance by selecting certain parameters like deposit mobilization, analysis of advances, credit Network Embeddedness, interest spreads, employee productivity, customer services, profit as a percentage of working funds etc. It has been brought out that

there is a gradual increase in the percentage of profit on the working funds due to deposit mobilization.

Tuyishime, Memba and Mbera (2015) examine the impact of savings mobilization on the bank financial performance in commercial banks in Rwanda. A case study of Equity bank Rwanda limited. Deposits are an indispensable tool commercial banks use to enhance its profitability through advancing deposits mobilized to its customers in form of loans which make in return interest to commercial banks. The lending activity is made possible only if the banks can mobilize enough funds from their customers. Specific objectives of this study are to determine the effect of marketing strategies on the financial performance of commercial banks in Rwanda, to establish the effect of interest rate changes on the financial performance of commercial banks in Rwanda and to determine the effect of banking technology introduced on the financial performance of commercial banks in Rwanda. The target population for the study was the bank managers involved in deposit mobilization namely the marketing team and the branch management team in Equity bank Rwanda. The research used a census to study a population of 27 staff. The main source of data was the primary and secondary data. The documentary method, the questionnaire as research instruments were used to get the data needed for the research. Data were processed by use of descriptive statistics after editing have been done. The computer software SPSS version 20 was used as a device to accommodate analysis. Pearson and Spearman's correlation analysis was used to test the nature of relationship. The findings indicated that majority of the respondents (85%) confirmed that the brand name of the Equity Bank is recognized in the public this has made able overcoming challenges mostly facing high competition with other banks. The marketing strategy used made the bank to increase in terms of customers and it has led to the increase in deposits over the

years. The findings also indicated that a positive change in deposits interest rate affects the level of deposits received and later on the profitability of the bank. The study revealed that the introduction of innovative banking technology has led to the increase in deposits at a low cost as opposed to the usual way of getting deposits through term deposits and made financial services accessible in the unbanked people. This also made the ROA, ROE, net profit increasing due as the loans volume increases. The statistical correlation revealed that there is a positive relationship between deposits mobilization and financial performance of commercial banks in Rwanda, the case of Equity Bank. The study recommends the bank to develop other strategies towards marketing and mobilize more deposits as they are indispensable tools towards the profitability of the bank. Chirwa (2003) determines the relationship between market structure and profitability of commercial banks in Malawi by using time series data during 1970 and 1994. He finds a long-run relationship between profitability and concentration, capital asset ratio, loan-asset ratio and demand deposits-deposits ratio.

Over the past decade, against a background of credit growth and favorable conditions in international financial markets, many European banks have financed an increasing portion of their growth by resorting to the medium- and long-term wholesale markets; although this decision has afforded banks greater flexibility in their financial structure, the cost has been greater than it would have been if the financing had been in the form of bank deposits. In this context, a higher share of customer deposits in bank liabilities should increase a bank's profitability, considering that deposits constitute a cheap and stable financial resource compared with other financing alternatives (García-Herrero et al., 2009). Thus, the study examines whether there is a direct relationship between the proportion of customer deposits in a bank's total liabilities and the bank's profitability.

2.2.6 Bank Size and Financial Performance

According to Goddard et al. (2004), scale economies are evident at low asset size levels but become exhausted as size increases. In this case, the bank's size can account for existing economies, or diseconomies, of scale. Berger and Humphrey (1997) argue that, on average, large banks are more efficient than small banks, but it is less clear whether large banks benefit significantly from scale economies. Profitability is more likely to improve by emulating industry best practice in terms of technology and management structure than by increasing the size per se. In this aspect, the empirical literature has not produced conclusive findings for the bank's size variable. For instance, Akhavein, Swamy, and Taubman (1997) and Smirlock (1985) found a positive relationship between size and bank profitability. Demirgüç-Kunt and Maksimovic (1998) suggested that the extent to which various financial and legal factors, among others, affect bank profitability is closely linked to the bank's size.

Goddard et al. (2004) in their study suggest that the relationship between the relative size of a bank's off-balance sheet portfolio and its profitability is positive for the UK, but negative for other European countries like Germany and Spain. Naceur and Goaid (2008) examine the effectiveness of bank characteristics, financial structure, and macroeconomic conditions on Tunisian banks' net-interest margin and profitability during the period of 1980 to 2000. They suggest that banks that hold a relatively high amount of capital and higher overhead expenses tend to exhibit higher net-interest margin and profitability levels, while size has a negative relation to bank profitability. Thus, the relationship between size and profitability for US banks can be positive or negative, depending on their scale efficiencies or inefficiencies due to bureaucracy and related factors.

Burki and Niazi (2006) examine the impact of financial reforms on the efficiency of state, private and foreign banks of Pakistan by using data of 40 banks for the period 1991-2000. They found a positive impact of banks size, interest income to earning assets and loans to Network Embeddedness on estimated efficiency scores.

Velnampy and Nimalathan (2010) made a research regarding the association between firm size and profitability of all the branches of Bank of Ceylon and Commercial Bank of Ceylon Ltd over a period of 10 years from 1997 to 2006. Findings reveal that, there is a positive relationship between firm size and profitability in Commercial Bank of Ceylon Ltd, but there is no relationship between firm size and profitability in Bank of Ceylon.

Ezeoha (2006) investigates the firm size and corporate financial-leveraged regression model was used to found out the relationship between the firm size and the financial leverage. Companies were taken as sample and the data was taken for the period of 17 years. The author found that was firm size is negative and significantly high leveraged.

Gweyi, Minoo and Luyali (2013) examine the determinants of leverage of Savings and Credit Co-operative Societies in Kenya. The study sample included 40 Sacco registered by Sacco Society Regulatory Authority (SASRA) extended from the period 2010 to 2012. For the data analysis, regression model was employed; the explanatory variables comprised of firm size, growth rate, liquidity profitability and tangibility, whereas the explained variable was the leverage ratio. The results show that for Saccos; there were statistically significant relationships. The results from the study revealed that firm size has significant relationship with leverage at 99% confidence level, whereas liquidity and tangibility have significant relationship with leverage at 95% confidence level.

Soocheong (2005) assesses the impact of financial leverage on profitability of the firm in restaurant industry. He took study period from 1998 to 2003 by using ordinary least square method. The aim of this study was to analyze the association between financial leverage and restaurants firm profitability and risk. For the sake of the achievement of objective of this study, he made three hypotheses. The first hypothesis was restaurant firms using a lower level of financial leverage have higher profitability. If a restaurant firm has a higher level of financial leverage than it has to spend large amount as interest expense despite the business situation. Second hypothesis was; firms with a higher level of financial leverage are riskier than those with a lower level of financial leverage. In his study he applied return on equity as a measure of profitability and financial leverage as a ratio of long-term debt to total assets and total assets as firm size. Results of the study suggested that the restaurant firms having large assets were more profitable than small firms and the sign of financial leverage variable was negative which indicated that firms with higher debt rates were less profitable.

Javaid et al. (2011) examine the determinants of top 10 banks' profitability in Pakistan over the period 2004 to 2008. They focused on the internal factors only. Javaid et al. (2011) used the pooled ordinary least square (POLS) method to investigate the impact of assets, loans, equity, and deposits on one of the major profitability indicators of banks which is return on asset (ROA). The empirical results found strong evidence that these variables have a strong influence on profitability. How-ever, the results show that higher total assets may not necessarily lead to higher profits due to diseconomies of scales. Also, higher loans contribute towards profitability but their impact is not significant. Equity and deposits have significant impact on profitability.

Imad et al. (2011) studied a balanced panel dataset of Jordanian banks for the purpose of investigating the nature of the relationship between the profitability of banks and the characteristics of internal and external factors for 10 banks over the period 2001 to 2010. Using two measures of bank's profitability: the rate of return on assets (ROA) and the rate of return on equity (ROE), the results show that the Jordanian bank's characteristics explain a significant part of the variation in bank profitability. High Jordanian bank profitability tends to be associated with well-capitalized banks, high lending activities, low credit risk, and the efficiency of cost management. Results also show that the estimated effect of size did not support the significant scale economies for Jordanian banks. Due to the fact that some of the differential slope coefficients are statistically significant, they conclude that the estimation results indicate that individual effects on the profitability are present.

Scott and Arias (2011) developed an appropriate econometric model whereby the primary determinants of profitability of the top five bank holding companies in the United States could be examined and understood. The econometric model was based on internal aspects of the banking organizations as they relate to their return on assets and external aspects of the environment in which they compete as measured by growth in GDP was developed based on guidance provided by economists and industry experts to determine the impact of the external national economy of these five leading banks according to their size as measured by total assets. The results show that profitability determinants for the banking industry include positive relationship between the return on equity and capital to asset ratio as well as the annual percentage changes in the external per capita income.

In another dimension, Gull et al. (2011) examined the relationship between bank-specific and macro-economic characteristics over bank profitability by using data of top fifteen Pakistani commercial banks over the period 2005 to 2009. The paper used the pooled ordinary least square (POLS) method to investigate the impact of assets, loans, equity, deposits, economic growth, inflation and market capitalization on major profitability indicators that is, return on asset (ROA), return on equity (ROE), return on capital employed (ROCE) and net interest margin (NIM) separately. The empirical results showed strong evidence that both internal and external factors have a strong influence on the profitability.

Goddard et al. (2004) investigated the profitability of European banks during the 1990s using cross-sectional, pooled cross-sectional time series and dynamic panel models. Models for the determinants of profitability incorporate size, diversification, risk and ownership type, as well as dynamic effects. They found that despite intensifying competition there was significant persistence of abnormal profit from year to year. Their results suggest that evidence for any consistent or systematic size–profitability relationship is relatively weak; the relationship between the importance of off-balance-sheet business in a bank’s portfolio and profitability is positive for the UK, but either neutral or negative elsewhere. Furthermore, the relationship between the capital–assets ratio and profitability were positive.

In a study on the determinants of the Tunisian banking industry profitability for 10 banks in Tunisia for the period 1980 to 2000, Naceur (2003) observed that high net interest margin and profitability are likely to be associated with banks with high amount of capital and large overheads. Further the paper also noted that other determinants such as loans has positive and bank size has negative impact on profitability.

Naceur and Goaid (2001) examine the impact of banks' characteristics, financial structure and macroeconomic indicators on banks' net interest margins and profitability in the Tunisian banking industry from 1980 to 2000. Individual bank characteristics explain a substantial part of the within-country variation in bank interest margins and net profitability. High net interest margin and profitability tend to be associated with banks that hold a relatively high amount of capital, and with large overheads. Size is found to impact negatively on profitability which implies that Tunisian banks are operating above their optimum level.

Fraker (2006) in his study, found a direct association between bank size and productivity. He argued that high capitalized banks are better able to advance loans to customers for better profitability. As investigated by Kapoor (2004), the fundamental purpose of commercial banks is to enhance their size not to have the benefit of cost approving from the financial system of scale but also to force their existence in the fresh market situation of Europe after introducing euro. The impact of bank size on its performance is different as explored in a study conducted by Goddard et al. (2004) from 1992-1998 of Europe it shows mix association on relationship between size and profitability.

Goddard, Tavakoli and Wilson (2005) in their study, examine manufacturing and service firms in four European countries for the period 1993–2001. They concluded that firms that increase in size tend to experience reduction in profitability, but an increase in market share was associated with increased profitability on average. Goddard, Molyneux and Wilson (2004) studied the profitability of European banks during the 1990s and found that evidence for any consistent or systematic size-profitability relationship was relatively weak. However, Akhigbe and McNulty (2005) studied differences in profitability and also examined the sources of these differences among 3000 to 6000 US commercial banks for the period from 1995 to 2001. They

divided the banks into three groups; small (under \$100 million in total assets), medium, and large (over \$1 billion in total assets). For the period as a whole, they found an economically (and statistically) significant difference in the average profitability, the small banks with the lowest profitability and the largest with the highest profitability. Small banks could attain high profit efficiency by being older, by operating in markets with low default rates, by being independent of a holding company, by generating high fee income, by operating in a concentrated market, and by having more of their assets in loans as opposed to securities. They also found that large banks that have high profit efficiency do so primarily by using more leverage since none of the other variables are significant.

In order to grow, firms can increase their market share, integrate or diversify into other businesses. Size is therefore related to market share as well as integration and diversification activities in the past.

2.3 Theoretical Framework

This section covers the review of theoretical underpinnings from which the study is rooted. The theories covered included the Pecking Order Theory, Trade-Off Theory, Clark's Theory of Profitability, and Schumpeters' Theory of Profitability.

2.3.1 Pecking Order Theory

Pecking order theory tries to capture the cost of asymmetric information and states that companies prioritize their sources of financing (from internal financing to equity) according to the law of least effort, or of least resistance preferring to raise equity as a financing means of 'last resort'. This implies that internal financing is used first; when it is depleted, then debt is issued and when it is no longer sensible to issue more debt, equity is issued. The theory

maintains that businesses adhere to a hierarchy of financing sources and prefer internal financing when available, and debt is preferred over equity if external financing is required (equity implies issuing more shares which meant bring external ownership into the firm). Thus the form of debt a firm chooses can act as a signal of its need for external financing. The pecking order theory is popularized by Myers (1984) when he argues that equity is less preferred means to raise capital because when managers (who are assumed to know better about the condition of the firm than investors) issue new equity, investors believe that managers think that the firm is overvalued and managers are taking advantage of this over valuation. As a result investors will place a lower value to the new equity issuance.

The conclusion of Myers and Majluf is that the market will attach no significance to issuance of new equity resulting in the circumvention by owners by taking recourse to internal financing. Further, in a situation where external financing is essential, debt is perceived by the firm to be safer than equity since the market value does not change much over time. Prior empirical studies buttress this. The Titman and Wessels (1985) study show that more profitable firms will tend to use less external financing thus providing support for pecking order theory (Caopeland, 1988:519). Event studies show that equity issue is interpreted as bad news by the market, with significantly negative announcement date effects on equity prices. Masults and Korwar (1986), Asquith and Mullins (1986), Kolodny and Suhler (1985) and Mikkelson and Patch (1986). This is consistent with Pecking order theory. A determinant of cash holding from the perspective of pecking order theory has been supported by other researches. Sebastian (2010) examine liquidity and solvency and finds that corporate liquidity and solvency interact through information, hedging, and leverage channels. The information and hedging channels increase equity-value of firms which helps to pay regular dividend and most importantly reduce

volatility in cash flow. Frank & Goyel (2002) showed that larger firms are more organized to take decision followed by this theory. Smaller firms were not following this theory and as the smaller firms moved away from pecking order theory so, overall average moves further from the pecking order (owolabi; 2004). Soku (2008) while testing financial flexibility and capital structure of small, medium and large firms observed that, large mature firms prefer using internal funds and safe debt in order to recharge financial flexibility rather than issuing equity. In case of small firms though they have low leverage, in order to cope with lack of cash at hand, they prefer to issue equity and increase cash holdings. However, he ends up with Financial flexibility hypothesis which refers firms hold cash and expect future cash flow, and that characterize their future investment plan and current ability to sort out financial constraints.

2.3.2 Trade-Off Theory

The term trade-off theory is used by different researchers to describe a family of related theories. A decision maker running a firm evaluates the various costs and benefits of alternative leverage plans. Frequently it is assumed that an interior solution is obtained so that marginal costs and marginal benefits are balanced.

The original version of the trade-off theory grew out of the debate over the Modigliani-Miller theorem. When corporate income tax was added to the original irrelevance, this created a benefit for debt in that it served to shield earnings from taxes. Given that the firm's objective function is linear, and there is no offsetting cost of debt, this implied 100% debt financing. Several aspects of Myers' definition of the trade-off merit discussion. Foremost, the target is not directly observable. It may be imputed from evidence, but that depends on adding a structure.

In a perfect market, there is the generalized assumption that there is free entry and exit of firms, ease of raising funds and no transaction cost to the firm. Trade off theory explains that firms are financed partially by debt and partly by equity and states that there is an advantage in financing with debt, the tax benefit of debt, the cost of financing distress including bankruptcy costs. The marginal benefit of further debt declines as debt increases while the marginal cost increases so that the firm that is optimizing its overall value will focus on this trade-off when choosing how much debt and equity to use for financing. The trade-off theory suggests that firms target an optimal level of liquidity to balance the benefit and cost of holding cash. The cost of holding cash includes low rate of return of these assets because of liquidity premium and possibly tax disadvantage. The advantage of holding cash is that the firms save transaction costs to raise funds and does not need to liquidate assets to make payments. Additionally, the firm can use liquid assets to finance its operations and invest if other medium of funding are not available or unnecessarily exorbitant.

2.3.3 Clark's Theory of Profitability

One of the theories of profitability is postulated by Clark. The underlying assumptions for such economy being perfect market conditions, static state, constant factors of production, absence of monopoly, not susceptible to change and rewards are according to management wage level. There is free flow of economic activities, perfect mobility and flow of all economic units in a frictionless environment; with all impediments to perfect competition dissolved. "The society acts and lives but does so in a changeless manner" (Siddiqi, 1971). Changes in any factor caused a tumor and subsequent adjustments that result in new equilibrium levels. Population changes and capital will lead to commensurate changes in wages and interest rate while the economy will absorb the changes and revert to status quo ante of its static state. Also changes

in production methods will cause disequilibrium in output and prices and if other producers adopt same technique will cause adjustment and new equilibrium level.

In contrast, an economy driven by profit possess reverse characteristics, the ability of the economy to endure such changes is due to the competitive equilibrium dynamics of the free market. Competition, remarks Knight, has the “tendency to eliminate profit or loss and bring the value of economic goods to equality with their cost” (Knight, 1921). A comparison of an economy driven by profit motive was made with that of a profitless economy with differences highlighted to identify the cause of profit. This approach was adopted by Schumber and Knight. In comparison, Clark highlighted that economies driven by profit will not buffer such changes instantaneously as there will necessarily be a time lag. It is this frictional delay that the entrepreneur takes advantage of and makes his profit before equilibrium returns and consumes his profit. Profit is hence a transitional phenomenon: “untransformed increments of wages and interest” (Siddiqi, 1971), its temporary nature demands from the entrepreneur a dynamic endeavor to seek out or generate opportunities on which he can capitalize. This process is summed up in Clark’s statement that “dynamic forces, then, account today for the existence of an income that static forces will begin to dispose of tomorrow” (Siddiqi, 1971). Economies are dynamic, the five variables outlined by Clark are never static; population and capital are in constant growth, innovation in production and management of resources are continually researched and consumer demands changes continuously and subject to changes in taste, fashion, trends and bandwagon effect. The entrepreneur thus finds permanence for as long as he can keep ahead of the changes, react before competitors and organize his efforts with sound knowledge of the market. Clark asserts that change drives profit. These changes

yield a surplus in the market prior to equilibrium and they are the sought-after profits of the entrepreneur (Owolabi, 2004)

2.3.4 Schumpeter Theory of Profitability

Schumpeter developed a circular model patterned after Clark's profitless economy but differs in detail from the static state model proposed by Clark. He postulated that departures from an ideally competitive environment and actual environment yields profit. Schumpeter selectively identifies the single notion of innovation as paramount, so that changes based upon innovation are the cause of profit. Gradual changes in population and capital would easily be anticipated by the market and hence present no opportunity for the entrepreneur. The specific areas highlighted by Schumpeter are innovations in commodity either by introducing new products or modifications to existing products, changes in new production methods, new sources of raw materials and changes in industrial organization. According to Schumpeter every business man is an innovator and breaking from competition to acquire monopoly which accrues profit until competitors catch up but before that is achieved he moves on to innovate more in other fields. Schumpeter did not see the entrepreneur's reward as a surplus value but rather as a functional reward linked to his innovative ability (Siddiqi, 1971). The impact of innovation was huge, leading to gales of creative destruction as innovations caused old inventories, ideas, technologies, skills, and equipment to become obsolete. Schumpeter saw the model of perfect competition in which different companies sold similar goods at similar prices produced through similar techniques as immaterial to progress (Owolabi, 2004).

This study relies on all the theories explained above in establishing the nexus between the dependent variables (Bank Performance) and the six independent variables of the study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

This study utilises descriptive research design using panel data for the period of ten years (i.e. 2007-2016) to explore the effect of independent variables (capital adequacy ratio, credit growth, nonperforming loans, deposit mobilization, liquidity, and bank size) on the dependent variable (profitability), and the nature of the relationship that exist between the variables. This involves the use of descriptive statistics such as the mean, standard deviation, skewness and kurtosis to describe the various variables used in the study, and the inferential statistics such as the panel regression model to test the effects of the explanatory variables on the explained variable.

3.2 Population and Sampling Technique

The population of the study is the 15 banks quoted on the floor of the Nigerian stock exchange as at 2016 (i.e. Access Bank Plc, Diamond Bank Plc, EcoBank Plc, Fidelity Bank Plc, First Bank of Nig. Plc, First City Monument Bank Plc, Guaranty Trust Bank Plc, Skye Bank Plc, Stanbic IBTC Bank, Sterling Bank Plc, UBA Plc, Union Bank Plc, Unity Bank Plc, Wema Bank Plc, and Zenith Bank Plc). All the 15 banks were used as sample of the study.

3.3 Method of Data Collection

The study utilizes the secondary data from Banks' Annual Reports, Nigerian Deposits Insurance Corporation (NDIC), CBN Bulletin and the Nigeria Stock Exchange Market Fact Book as they are more reliable for this kind of study.

3.4 Techniques for Data Analysis and Model Specifications

The panel regression model was used with the aid of E-Views version 9 to determine and analyze the effect of bank specific variables on the profitability of quoted DMBs in terms of ROA. The management controllable or bank specific variables are capital adequacy ratio, credit growth, nonperforming loans, network embeddedness, liquidity, and bank size. The study was validated using the fixed effect and random effect models (panel regression models). The Hausman test was applied to choose the most appropriate and suitable model between fixed and random effect (Hakim & Shimko, 1995) having run for residual diagnostics test such as Serial Correlation LM Test, Heteroskedasticity Test, and Multicollinearity Test. Thus, the following multiple panel regression model equation was used to evaluate the effect of bank specific variables on the profitability of quoted DMBs in terms of ROA.

Panel Regression Model:

$$ROA = f(CAR, LIQ, CGR, NPLs, NTW, BSIZE)$$

$$ROA_{it} = \beta_0 + \beta_1 CAR_{it} + \beta_2 LIQ_{it} + \beta_3 CGR_{it} + \beta_4 NPLs_{it} + \beta_5 DPM_{it} + \beta_6 BSIZE_{it} + \epsilon_{it}$$

Where:

ROA_{it} = Profitability (PAT/Total Assets) of firm i at period t

CAR_{it} = Capital Adequacy Ratio (Equity to Risk Weighted Capital) of firm i at period t

LIQ_{it} = Liquidity (Cash and Short-term Funds/Total Deposit) of firm i at period t

CGR_{it} = Credit Growth (Loans and Advances/Total Assets) of firm i at period t

$NPLS_{it}$ = Nonperforming Loans (Nonperforming Loans/Total Loans) of firm i at period t

DPM_{it} = Deposit Mobilization (Deposits/Total Assets) of firm i at period t

$BSIZE_{it}$ = Bank Size (Log of Total Assets) of firm i at period t

E_{it} = Error term

β_0 = Constant

$B_1 - B_6$ = Coefficients

3.5 Justification of the Method

Panel regression model was adopted to measure the effects of bank specific variables on the financial performance (ROA). Regression Analysis is a statistical technique for modeling and investigating the cause-effect relationship between two or more variables. Also, many of the forecasting techniques use regression methods for parameter estimations. It is a means of viewing the cause-effect relationship that exist between two or more variables i.e. one dependent and one or more independent variables. Furthermore, the study was based on panel data as the data were collected from various quoted DMBs in Nigeria. Thus, it is likely to be exposed to problem of heterokedasticity. The study focuses on ten years post consolidation era (i.e. 2007-2016) cross-sectional (panel) data because is sufficient to establish a line of best fit and describe the relationship that subsists between the variables of the study. The study period is justified as it covers the period the CBN made concerted efforts to strengthen the banking system through institutionalization of various policies after the consolidation exercise in 2005.

CHAPTER FOUR:

DATA PRESENTATION AND ANALYSIS

4.1 Data Presentation

This section presents data collected in relation to the study variables ranging from Return on Assets (ROA), Credit Growth Ratio (CGR), Liquidity Ratio (LQR), Nonperforming Loans Ratio (NPLR), Capital Adequacy Ratio (CAR), and Deposit Mobilization (DPM). These data are attached at the appendix.

4.2 Data Analysis and Results

Table 4.1 Descriptive Statistics

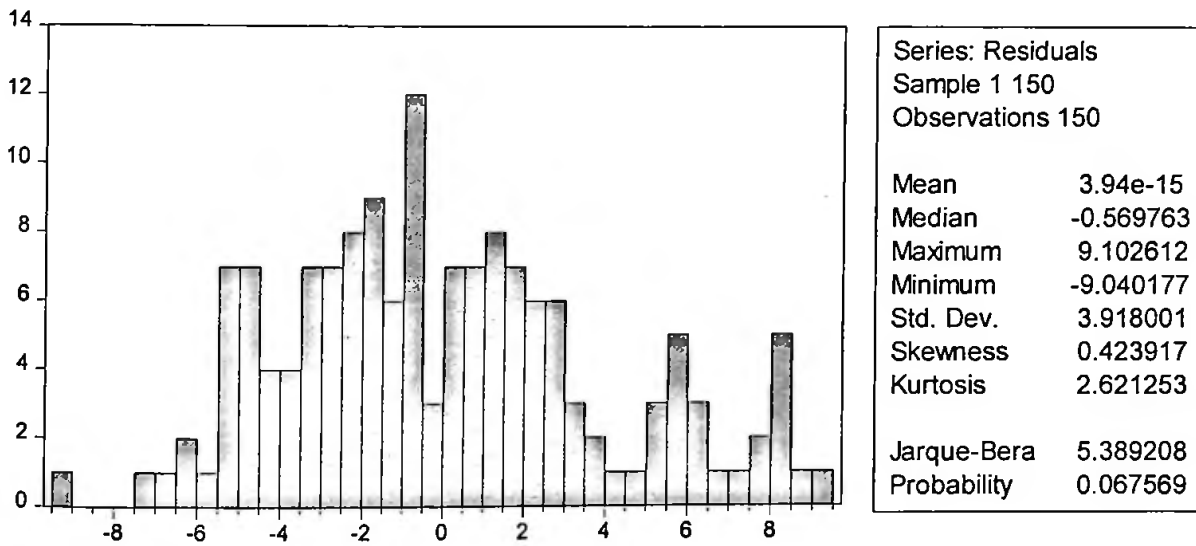
	ROA	CAR	LQR	CGR	NPLR	DPM	BSIZE
Mean	10.13593	18.36220	49.21707	48.99640	9.377133	65.91207	27.47208
Median	9.425000	17.30000	47.50000	48.10500	4.045000	66.03500	27.54766
Maximum	21.45000	57.34000	121.2200	86.71000	78.68000	125.0200	29.08767
Minimum	2.970000	0.140000	17.26000	22.44000	0.390000	21.80000	25.61228
Std. Dev.	4.167870	8.342317	16.48911	10.34073	13.50680	14.88043	0.783371
Skewness	0.689676	1.201450	1.239061	0.491406	3.110949	0.889321	-0.144548
Kurtosis	2.703490	6.803490	5.770763	3.697492	13.87989	6.495475	2.309578
Jarque-Bera	12.44082	126.5029	86.36389	9.077578	981.7748	96.13696	3.501617
Probability	0.001988	0.000000	0.000000	0.010686	0.000000	0.000000	0.173634
Sum	1520.390	2754.330	7382.560	7349.460	1406.570	9886.810	4120.812
Sum Sq. Dev.	2588.300	10369.54	40511.72	15932.66	27182.59	32992.65	91.43684
Observations	150	150	150	150	150	150	150

Source: Researcher's Computation using Eviews version 9

Table 4.1 presents the features/characteristics of the study's variables in terms of Return on Assets (ROA), Capital Adequacy Ratio (CAR), Liquidity Ratio (LQR), Credit Growth Ratio (CGR), Nonperforming Loans Ratio (NPLR), Deposit Mobilization (DPM), and Bank Size (BSIZE). The average scored for the respective variables are Return on Assets (10.13), Capital

Adequacy Ratio (18.36), Liquidity Ratio (49.22), Credit Growth Ratio (48.99), Nonperforming Loans Ratio 9.37, Deposit Mobilization (65.91), & Bank Size 27.47. The study revealed that NTW has the highest maximum reached of 125.02, while ROA has the lowest maximum reached of 21.00.

Table 4.2 Normality Test



Source: Researcher's Computation using Eviews version 9

Table 4.2 is the histogram table for test of normality. It is therefore significant to note that, the Jarque-Bera statistics value and its corresponding p-value of 5.38 & 0.068 indicate presence of normality.

Table 4.3 Correlation Matri

roa	car	lqr	cgr	nplr	dpm	bsize	
roa	1.0000						
car	-0.1318	1.0000					
lqr	-0.0162	0.2211	1.0000				
cgr	-0.1237	-0.0020	-0.5765	1.0000			
nplr	-0.2654	-0.0520	-0.0574	0.3095	1.0000		
dpm	-0.0662	-0.0972	-0.2217	-0.0352	-0.2657	1.0000	
bsize	-0.0186	0.0674	-0.0765	-0.0059	-0.3096	0.3180	1.0000

Source: Researcher's Computation using STATA 13

Table 4.3 is a correlation matrix that explains the association between the dependent and the independent variable. This table clearly depicts negative correlation/association between the explained and the explanatory variables. These are given by the respective coefficients of -0.01318, -0.0162, -0.1237, -0.2654, -0.0662 & -0.0186 for CAR, LQR, CGR, NPLR DPM & BSIZE respectively.

Regression Results

Considering the fact that this study used cross-sectional panel data, both fixed and random effect model were conducted. In deciding which of the two is appropriate for the study, a Hausman Specification Test was conducted and the results of the presented in table 4.4.

Table 4.4 Hausman Specification Test

----- Coefficients -----				
	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	FE	RE	Difference	S.E.
car	-.0836406	-.0794786	-.004162	.0136899
lqr	-.0254438	-.0244742	-.0009696	.0107742
cgr	-.0769565	-.0627421	-.0142144	.0201138
nplr	-.1007597	-.1014588	-.0006992	.0154968
dpm	-.0502983	-.048044	-.0022543	.0149405
bsize	-.4923814	-.4258942	-.0664871	.4069339

b = consistent under Ho and Ha; obtained from xtreg

B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

$$\begin{aligned} \text{chi2}(6) &= (b-B)'[(V_b-V_B)^{-1}](b-B) \\ &= 2.54 \\ \text{Prob}>\text{chi2} &= 0.8636 \end{aligned}$$

Source: Researcher's Computation using STATA 13

Table 4.4 is a Hausman specification test, guides in selecting between the fixed and the random effects model. Fixed effect model is only chosen when the probability value is less than or equal to the t-value of 0.05 (5%). However, given the P-value of 0.8636 which is greater than the t-value of 0.05, the Random effect model is chosen against the fixed effect model.

Table 4.5 Panel Regression

Random-effects GLS regression	Number of obs	=	150
Group variable: id	Number of groups	=	15
R-sq: within = 0.1889	Obs per group: min	=	10
between = 0.0000	avg	=	10.0
overall = 0.1235	max	=	10
	Wald chi2(6)	=	29.03
corr(u_i, X) = 0 (assumed)	Prob > chi2	=	0.0001

roa	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
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car	-.0794786	.0395599	-2.01	0.045	-.1570146	-.0019425
lqr	-.0244742	.026234	-0.93	0.351	-.0758919	.0269434
cgr	-.0627421	.0441804	-1.42	0.156	-.1493341	.02385
nplr	-.1014588	.0297173	-3.41	0.001	-.1597036	-.043214
dpm	-.048044	.0277929	-1.73	0.084	-.102517	.006429
bsize	-.4258942	.553367	-0.77	0.442	-1.510474	.6586852
_cons	31.69229	15.37803	2.06	0.039	1.551912	61.83267

sigma_u	1.9934602					
sigma_e	3.5878999					
rho	.23588205	(fraction of variance due to u_i)				

Source: Researcher's Computation using STATA 13

$$\text{ROA} = 31.692 - 0.079\text{CAR} - 0.024\text{LQR} - 0.063\text{CGR} - 0.101\text{NPLR} - 0.048\text{DPM} - 0.426\text{BSIZE}$$

Table 4.5 depicts an R-Squared of 0.1235 indicates that about 12.4% of variation in ROA of quoted DMBs in Nigeria can be explained by Bank Specific Variables (CAR, LQR, CGR, NPLR, DPM, and BSIZE). The remaining 87.6% is explained by variables not captured in the study. The F-statistics of 29.03 and its p-value of 0.000 indicate fitness of the model. From the table the following regression line can be deduced:

This regression line indicates that, ROA of quoted DMBs in Nigeria decreases with increase in Capital Adequacy Ratio (CAR), Liquidity Ratio (LQR), Credit Growth Ratio (CGR) and Nonperforming Loans Ratio (NPLR), Deposit Mobilization (DPM) and Bank Size (BSIZE).

Table 4.5 further shows that at 5% level of significance, the effect of Capital Adequacy Ratio on financial performance is statistically significant as the p-value (0.048) is less than 5%. Liquidity Ratio's effect on financial performance is not statistically significant (p-value=0.371). Similarly, the effect of Credit Growth Ratio on firm performance is not statistically significant (p-value=0.115). On the other hand, the effect of Nonperforming Loans Ratio on profitability is statistically significant (p-value=0.003) while the effect of Deposit

Mobilization (DPM) and Bank Size (BSIZE) on financial performance is statistically not significant as their respective p-values of 0.113 and 0.475 are greater than 5%.

Regression Post Diagnostic Tests

Multicollinearity Test

This test checks for correlation between independent variables. Multicollinearity occurs when multiple independent variables are highly correlated. In case of substantial multicollinearity, the regression coefficients may be “both biased and inconsistent” (Smith, 2011). Multicollinearity causes considerable changes in the regression coefficients when small adjustments are made to the data or the regression model. This distorts the reliability of the results. This study used the Variance Inflation Factor (VIF) and Tolerance Value to test for multicollinearity. Tobachnick and Fidell (1996), Neter, Kutner, Nachtsheim and Wasserman, (1996), Gujarati and Porter (2009) suggested that if VIF of a variable is more than 10, that variable is said to be highly collinear. Similarly, where the tolerance values are lesser than 1.00, there is no multicollinearity problem (Tobachnick & Fidell, 1996).

Table 4.6 Test of Multicollinearity

Variable	VIF	1/VIF
cgr	1.78	0.562011
lqr	1.77	0.563455
nplr	1.30	0.770988
ntw	1.24	0.803729
bsize	1.20	0.831481
car	1.10	0.909887
Mean VIF	1.40	

Table 4.6 above indicates that there is no multicollinearity problem with the predictors (independent variables; CGR, LQR, NPLR, NTW, BSIZE and CAR) of the study. This is

because the tolerance values are consistently less than 1 and the VIF values are consistently less than 10. Most importantly, the mean VIF value of 1.40 is less than 10.

Heteroskedasticity Test

This test checks whether the variability of error term is constant or not. An assumption of a linear regression model is that the variance of the error term is constant. This is called the assumption of homoscedasticity (Gujarati & Porter, 2009). This study used the Breusch-Pagan / Cook-Weisberg test for heteroskedasticity. The null hypothesis here is that the residuals are homoscedastic and the decision rule is to reject null hypothesis if prob.chi-square is less than 0.05.

Table 4.7 Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance	
Variables: fitted values of roa	
chi2(1) =	3.51
Prob > chi2 =	0.0609

Source: Researcher's Computation using STATA 13

The prob.chi-square of the Breusch-Pagan / Cook-Weisberg test for heteroskedasticity is 0.0609 as shown in table 4.7 above. This is higher than 0.05 hence we accept the null hypothesis that the residuals are homoskedastic. This indicates that the variance of the error term is constant, implying that there is no heteroscedasticity.

4.3 Discussion of Findings

It is evident from the results and analyses that, capital adequacy ratio is negatively related to financial performance of quoted DMBs in Nigeria with statistical significance. This implies that the financial performance of quoted DMBs in Nigeria decreases with increase in capital adequacy ratio. This is sufficed to say that, DMBs are not really making the most use of their

resources to generate comparable profits. This finding is consistent with the findings in previous studies such as Ikpefan (2013); Aspal and Nazneen (2014); Martynova (2015); and more recently Malimi (2017). However, the finding is inconsistent with the findings in the previous works of Berger (1995); Naceur and Goaid (2001); Athanasoglou et al. (2005); and Aburime (2008).

Similarly, a significant negative effect of nonperforming loans on financial performance of quoted DMBs in Nigeria was found. This means that, financial performance of quoted DMBs in Nigeria decreases also with increase in default loans. It is worthy to note that, the core revenue generating activity of banks is granting out loans and advances to customers for interest charge. Thus, when the customers refused to pay these loans as at when due, the profitability that is supposed to be generated from them would not be forthcoming. This would reduce the profitability accruing to the loans and advances, thus poor profitability. This finding is in line with the findings in the previous works of Ben-Naceur and Omran (2008); Hosna, Manzura and Juanjuan (2009); Kargi (2011); Al-Khoury (2011); Naburgi (2012); Kolapo, Ayeni and Oke (2012).

In the case of liquidity ratio, an insignificant negative effect on financial performance was revealed. This is sufficed to say that, the profitability of quoted DMBs in Nigeria decreases insignificantly with increase in liquidity ratio. This can be argued that, ROA of quoted DMBs in Nigeria is not influenced heavily by liquidity ratio. It can be buttressed to mean that the quoted DMBs are not putting their best to make the most use of the cash and cash equivalents to generate the desire profitability of the banks. This finding is supported by the findings in the previous studies such as Velnampy (2005); Raheman and Nasr (2007); Raheman and Nasr (2007); Walt (2009); Zariyawati, Annuar, Taufiq and Rahim (2009).

Furthermore, an insignificant negative effect of credit growth ratio on profitability of quoted DMBs in Nigeria was found. This means profitability of quoted DMBs in Nigeria decreases with increase in loans and advances to customers. This is sufficed to say that, stringent control mechanisms are not in place to ensure repayment of loan facilities to customers. This finding is in tandem with the findings in the previous studies such as Velnampy and Nimalathan (2009); Ebaid (2009); Kargi (2011); Velnampy and Niresh (2012); Edwin, Mwalati, Ondiek, Alala and Musiegas (2014).

In addition, the effect of deposit mobilization on financial performance of quoted DMBs in Nigeria is not statistically significant. Although the result is not statistically significant, a possible explanation of the negative effect may be the slow pace of financial inclusion. This finding is inconsistent with the findings in Prasantha (1997); Laura, Alfred, Sylvia (2009); Kazi (2012); Tuyishime, Memba and Mbera (2015).

Finally, an insignificant negative effect of bank size on financial performance of quoted DMBs in Nigeria was indicated. This implies that financial performance of quoted DMBs in Nigeria is not majorly influenced by bank size in terms of total assets. The finding is consistent with the findings in Goddard et al. (2004); Naceur and Goaid (2008); Naceur and Goaid (2001)

CHAPTER FIVE

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

5.1 Summary

This study examines the effects of bank specific variables on the financial performance of quoted DMBs in Nigeria. The study uses descriptive and causal research designs using panel data for the period of ten years (i.e. 2007-2016) to explore the effect of independent variables (capital adequacy ratio, credit growth, nonperforming loans, Network Embeddedness (network embeddedness), liquidity, and bank size) on the dependent variable (profitability).

The population of the study is the 15 banks quoted on the floor of the Nigerian stock exchange as at 2016 (i.e. Access Bank Plc, Diamond Bank Plc, EcoBank Plc, Fidelity Bank Plc, First Bank of Nig. Plc, First City Monument Bank Plc, Guaranty Trust Bank Plc, Skye Bank Plc, Stanbic IBTC Bank, Sterling Bank Plc, UBA Plc, Union Bank Plc, Unity Bank Plc, Wema Bank Plc, and Zenith Bank Plc). Purposive sampling technique was used to select banks based on the criteria that the banks: have availability of consistent data-set over the period and with at least a branch in all states of the federation; are listed and quoted on the Nigeria Stock Exchange. Based on this method, a census of the entire quoted DMBs are taken for analysis because they have met the conditions for the selection. The study utilizes the secondary data from Banks' Annual Reports, Nigerian Deposits Insurance Corporation (NDIC), CBN Bulletin and the Nigeria Stock Exchange Market Fact Book as they are more reliable for this kind of study.

The panel regression results indicate that, capital adequacy ratio is negatively related to profitability of quoted DMBs in Nigeria with statistical significance. This implies that the

profitability of quoted DMBs in Nigeria decreases with increase in capital adequacy ratio. Similarly, a significant negative effect of nonperforming loans on profitability of quoted DMBs in Nigeria was found. This means that, profitability of quoted DMBs in Nigeria decreases also with increase in default loans. In the case of liquidity ratio, an insignificant negative effect on ROA was revealed. This is sufficed to say that, the profitability of quoted DMBs in Nigeria decreases insignificantly with increase in liquidity ratio. Furthermore, an insignificant negative effect of credit growth ratio on profitability of quoted DMBs in Nigeria was found. This means profitability of quoted DMBs in Nigeria decreases with increase in loans and advances to customers. Conversely, a significant positive effect of deposit mobilization on profitability of quoted DMBs in Nigeria was revealed. This implies that profitability of quoted DMBs in Nigeria increases significantly as customers' deposits increase. Finally, an insignificant positive effect of bank size on profitability of quoted DMBs in Nigeria was indicated. This implies that profitability of quoted DMBs in Nigeria is not majorly influenced by bank size in terms of total assets.

5.2 Conclusions

Based on the finding that, capital adequacy ratio is negatively related to financial performance of quoted DMBs in Nigeria with statistical significance, the study concludes that quoted DMBs are keeping too much idle funds that are not put into use to generate more income for the banks. This is a fact because as the percentage of capital adequacy increases, the money available to the banks to disburse out to customers as loans decrease. This makes it difficult for the banks to meet their core revenue generating activity of granting loans facilities to customers for better profitability.

It is also concluded in line with the significant negative effect of nonperforming loans on profitability of quoted DMBs in Nigeria that, stringent control measures are not in place to reduce the degree or rate of loan default in the banks. Thus, as credit default increases by customers, the profitability of the banks suffer.

In the case of insignificant negative effect liquidity ratio on financial performance, the study concludes that cash and cash equivalents within the disposal of the banks are not adequately a utilized to meet the required needs of the customers. Thus, the banks are not making the most use of the current assets to generate commensurate profitability. They are not using the current assets to strike on the available opportunities within their reach.

It is also concluded based on the insignificant negative effect of credit growth ratio on profitability of quoted DMBs in Nigeria that, stringent control mechanisms are not in place to ensure total repayments of loans and advances granted out to customers by the DMBs. Thus even when the loans and advances are granted out to enhance the profitability of the banks, the banks customers often default to pay because of the poor enforcement policies in place.

In line with the significant negative effect of deposit mobilization on profitability of quoted DMBs in Nigeria, the conclusion drawn is that, the financial performance of the banks is not enhanced with the level of deposit mobilization.

Finally, the study concludes based on the insignificant negative effect of bank size on financial performance of quoted DMBs in Nigeria that, the size of the banks in terms of total assets does not really matter except, they can put it to effective use for better profitability. It is sufficed to say that; large size banks often develop nonchalant attitude towards investment opportunities.

5.3 Recommendations

In line with the findings and the conclusions drawn from the study, the following recommendations are made:

CBN should reduce the Capital Adequacy Ratio of quoted DMBs in Nigeria, with a view to improving their capacity to extend loans and advances to customers for better profitability. The quoted DMBs in Nigeria in their own part, should try as much to develop investment habit such that idle funds that would be utilized to enhance the banks' profits will be reduced.

Quoted DMBs in Nigeria should ensure that stringent control mechanisms are put in place to reduce cases of credit or loan default by customers. The banks should insist on collateral and ensure that the customers' default probability is low before loans are granted out to such customers. Furthermore, the banks should also insist that, for any loan to be granted, the borrower must present a guarantor or a surety with a sound account balance with the bank such that, should the customer default, the guarantor will be responsible to repay the loan.

Quoted DMBs in Nigeria should ensure that the daily or frequent needs of customers in terms of cash withdrawal are being met. Since inability of the banks to meet up with the daily needs of the customers in terms of daily withdrawal reduces customer loyalty towards Banks. This will however, make saving mobilization difficult and thus, poor profitability.

Quoted DMBs in Nigeria should try to build a good relationship with customers to encourage their continuous loyalty. Thus, they should be working towards savings mobilization from customers with a view to improving their disposable funds to enhance their profits. This is to say that, with available funds from customers' deposit, banks will be able to meet its lending need to customers, which in turn will result to better profitability.

Quoted DMBs in Nigeria should make the most use of their resources to enhance their profitability. Thus, it is only when the resources of the banks are put to judicious use that their profits will increase.

5.4 Limitations of the Study

This study is limited to variables that are core in determining the profitability of banks, other minor variables in determining profitability were not covered. Thus, the said exclusion can be argued not to have deterred the study, since the major variables are taken care of, and those that are not captured, can be said to be intertwined. Some of these variables that are not captured in the study are such as leverage, bank operating cost to mention just a few.

5.5 Suggestion for Further Study

In line with the above limitations, the study suggests that further study in the area can be conducted looking at those variables that are not captured in the study to expand the frontier and add to the existing body of literature. Specifically, macro-economic variables can be used.

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APPENDIX: DATA FOR THE STUDY

BANK	YEAR	ID	LQR	NPLR	CAR	DPM	CGR	BSIZE	ROA
Access Bank	2007	1	32.15	20.31	26.44	40.23	60.9	25.6873	5.28
	2008	1	33.1	36.69	34.54	53.59	79.7	25.9629	4.92
	2009	1	70.73	72.27	1.94	40.26	54.41	26.1667	4.05
	2010	1	87.24	40.34	50.54	57.1	37.37	26.0611	14.17
	2011	1	55.97	3.58	9.43	62.83	33.49	26.1935	21.45
	2012	1	53.42	5.95	6.07	68.23	33.79	26.2681	7.12
	2013	1	66.17	0.86	6.49	64.93	33.06	26.5306	16.43
	2014	1	17.26	0.73	5.34	67.14	40.73	26.6767	18.49
	2015	1	35.23	2.75	14.75	72.74	48.43	26.6767	16.58
	2016	1	31.42	2.35	12.13	65.06	43.78	26.7713	20.15
Diamond Bank	2007	2	51.39	20.6	14.51	50.32	30.49	26.173	15.77
	2008	2	37.11	29.76	17.34	66.28	40.08	26.4854	8.08
	2009	2	28.33	36.87	18.54	76.69	54.66	26.2808	6.84
	2010	2	47.41	14.07	7.1	69.04	41.21	26.503	8.45
	2011	2	46.55	11.12	6.49	69.68	34.58	26.6655	12.43
	2012	2	35.79	20.07	10.31	64.29	48.68	26.7075	5.05
	2013	2	30.88	18.88	0.76	83.84	66.46	26.5306	8.32
	2014	2	42.24	38.07	0.14	62.02	59.73	26.8146	6.09
	2015	2	34.93	78.68	1.14	51.83	69.39	26.8146	4.81
	2016	2	22.15	73.12	28.32	54.28	74.51	26.9165	6.87
Eco Bank	2007	3	49.66	10.27	15.8	47.19	51.13	25.6123	9.62
	2008	3	45.17	7.87	11.61	54.82	51.73	25.8196	12.98
	2009	3	40.07	16.98	13.47	70.03	48.74	26.0481	7.46
	2010	3	46.88	7.37	7.93	59.41	44.94	26.295	12.45
	2011	3	46.93	2.1	5.32	67.02	48.15	26.5233	12.96
	2012	3	55.69	2.23	12.3	79.84	43.91	27.0828	5.87
	2013	3	51.11	1.43	12.26	80.91	48.09	27.2719	6.43
	2014	3	31.64	1.8	12.67	79.06	49.68	27.4369	5.65
	2015	3	44.74	3.92	16.92	73.69	50.88	27.404	4.98
	2016	3	29.46	2.32	11.8	68.15	68.19	27.4425	6.88
Fidelity Bank	2007	4	70.48	22.85	17.34	44.08	37.96	27.426	5.03
	2008	4	30.52	12.99	11.11	40.84	39.98	27.9533	5.64
	2009	4	52.29	12.09	4.39	68.68	53.45	27.7735	6.39
	2010	4	56.97	11.43	57.34	63.17	33.33	27.6072	5.86
	2011	4	87.22	27.31	18.26	48.75	27.83	27.5145	4.94
	2012	4	89.78	8.4	17.42	55.01	22.44	27.5455	11.39
	2013	4	78.99	11.22	18.55	54.83	34.42	27.4955	8.46
	2014	4	55.66	7.79	13.06	54.93	42.71	27.5583	9.75

	2015	4	36.68	23.08	14.43	57.77	41.34	27.6105	6.49
	2016	4	27.98	16.28	12.88	56.27	52.54	27.7509	12.86
First Bank PLC	2007	5	121.22	18.44	30.66	21.8	33.13	26.5704	10.63
	2008	5	108.33	6.11	24.27	28.85	31.27	26.6196	12.75
	2009	5	63.01	12.87	28.13	51.06	39.98	26.5345	9.36
	2010	5	46.24	7.6	27.07	50.36	49.67	26.6563	11.47
	2011	5	67.54	6.22	20.75	53.82	48.89	27.0251	13.06
	2012	5	56.26	4.98	16.8	62.79	47.18	27.1174	14.57
	2013	5	85.48	4.65	13.47	57.96	43.78	27.2749	8.3
	2014	5	66.45	4.88	14.41	57.02	45.34	27.539	5.43
	2015	5	53.28	10.62	16.55	50.75	42.73	27.5121	5.05
	2016	5	72.25	10.01	14.56	52.92	39.97	27.6339	18.56
FCMB	2007	6	54.98	1.84	19.85	34.18	62.89	26.4855	19.74
	2008	6	38.91	2.5	34.1	40.97	71.07	26.8306	10.87
	2009	6	53.32	5.87	35.84	57.29	57.1	26.8685	9.76
	2010	6	32.83	4.43	29.25	62.63	65.42	26.99	7.58
	2011	6	48.67	5.74	24.56	60.93	52.7	27.1611	8.55
	2012	6	58.79	2.08	18.54	68.03	39.42	27.5748	10.25
	2013	6	47.62	2.98	18.99	69.45	46.37	27.6242	8.31
	2014	6	30.42	2.67	18.41	66.01	54.7	27.7588	16.57
	2015	6	32.47	4.11	19.52	63.76	51.38	27.7486	19.04
	2016	6	38.57	2.41	17.3	62.05	57.23	27.7766	15.87
GT BANK	2007	7	49.53	7.68	23.64	66.04	44.22	26.4487	19.26
	2008	7	42.45	3.92	13.45	60.25	47.67	26.9426	17.34
	2009	7	42.11	11.83	16.11	71.65	57.34	27.1494	12.87
	2010	7	30.47	9.85	14.67	72.94	64.86	27.2214	11.74
	2011	7	32.13	1.98	14.02	78.56	58.13	27.494	6.45
	2012	7	36.61	3.92	16.24	70.83	54.56	27.7149	8.09
	2013	7	40.17	3.66	14.38	71.76	54.34	27.7509	11.74
	2014	7	27.47	1.19	12.43	71.04	48.85	27.7686	6.07
	2015	7	22.98	12.57	15.01	62.7	62.49	27.8209	9.07
	2016	7	30.68	63.66	17.54	54.21	86.71	27.7759	8.09
SKYE BANK	2007	8	57.89	3.78	16.99	67.83	47.21	26.1468	5.87
	2008	8	50.51	2.75	12.11	62.32	55.63	26.8874	12.88
	2009	8	67.12	3.17	41.37	65.03	47.46	26.824	6.97
	2010	8	59.77	2.11	28.54	65.34	48.89	26.9402	5.92
	2011	8	55.93	3.08	30.76	75.27	39.44	27.3343	9.18
	2012	8	53.43	3.88	31.52	76.84	39.98	27.5498	5.85
	2013	8	55.6	3.08	25.69	73.05	40.49	27.7257	9.43
	2014	8	36.55	3.28	26.33	69.93	50.78	27.7771	6.08
	2015	8	38.64	4.38	31.52	62.58	49.57	27.8317	3.85

	2016	8	33.21	3.07	17.21	59.16	57.93	27.9007	13.45
Sterling Bank	2007	9	70.36	3.49	12	49.03	38.35	26.7343	13.54
	2008	9	36.33	4.64	18.98	51.62	59.41	26.8734	12.22
	2009	9	35.03	9.61	20.3	71.28	58.35	27.1602	12.07
	2010	9	41.32	13.13	18.3	65.73	59.75	27.0634	11.67
	2011	9	46.19	6.8	16.04	69.9	53.81	27.3612	17.44
	2012	9	40.02	3.63	15.92	70.05	53.71	27.6992	18.62
	2013	9	48.79	3.2	17.38	75.67	45.61	27.9325	10.76
	2014	9	49.54	2.86	17.19	80.02	41.51	28.1854	15.85
	2015	9	67.13	27.86	19.22	77.84	41	28.0508	6.59
	2016	9	33.21	27.25	15.08	69.74	51.64	28.1326	7.53
UBA	2007	10	43.44	1.7	10.42	68.38	40.82	26.5296	12.84
	2008	10	32.22	9.05	11.49	65.89	33.24	26.7689	5.91
	2009	10	40.67	39.13	21.84	66.08	62.95	26.6281	4.95
	2010	10	51.3	21.09	21.48	72.86	59.7	26.8557	9.45
	2011	10	70.48	3.59	18.05	62.85	43.51	27.0791	11.36
	2012	10	52.2	3.66	16.49	77.02	41.71	27.9308	9.42
	2013	10	52.21	2.82	14.74	76.38	48	28.0271	12.46
	2014	10	20.76	2.05	13.35	68.88	53.85	28.2103	12.92
	2015	10	59.76	8.89	16.34	66.89	48.82	28.2262	2.97
	2016	10	42.16	7	16.59	61.04	63.03	28.2615	13.19
Union Bank	2007	11	69.79	6.89	27.97	50.14	37.08	27.2498	10.07
	2008	11	36.77	4.57	23.18	64.86	41.59	27.5804	11.67
	2009	11	45.44	6.13	12.5	73.54	41.52	27.9425	9.67
	2010	11	45.82	4.6	18.13	76.28	42.53	28.0044	12.2
	2011	11	55.5	1.29	17.31	72.87	39.77	28.131	8.4
	2012	11	53.77	0.59	18.66	77.04	34.12	28.2666	11.32
	2013	11	53.66	0.52	17.94	80.65	41.08	28.4099	9.63
	2014	11	39.27	0.84	16.67	77.03	45.26	28.4491	8.1
	2015	11	52.63	2.16	21.85	72.83	43.89	28.4278	6.68
	2016	11	41.48	1.78	17.3	66.38	48.12	28.5699	7.87
Wema Bank	2007	12	73.08	1.88	16.87	111.32	40.19	27.1136	8.78
	2008	12	50.42	0.46	18.74	125.02	43.61	27.5284	13
	2009	12	42.8	2.83	18.52	109.32	56.77	27.6548	8.13
	2010	12	47.94	5.55	21.57	117.94	57.09	27.715	6.02
	2011	12	54.24	3.98	19.88	102.83	47.14	28.0579	5.2
	2012	12	52.49	2.82	18.8	110.31	47.75	28.1166	4.82
	2013	12	52.69	2.46	17.81	108.02	50.01	28.2785	9.62
	2014	12	49.7	2.42	20.59	67.47	57.55	28.3891	7.95
	2015	12	36.6	5.19	16.66	62.54	56.59	28.4642	8.67
	2016	12	42.25	3.74	19.59	63.92	58.44	28.5997	11.85

Zenith Bank	2007	13	99.21	4.65	8.36	38.01	50.98	27.0125	6.39
	2008	13	38.3	8.68	24.86	43.72	62.09	27.3265	7.43
	2009	13	38.9	2.79	22.34	62.56	61.54	27.1833	10.53
	2010	13	34.3	1.29	12.43	61.74	63.41	27.3112	8.03
	2011	13	28.67	1.48	14.95	52.84	59.52	27.6022	4.39
	2012	13	50	1.44	14.05	71.5	41.55	28.0618	7.75
	2013	13	46.83	0.39	12.72	67.42	46.31	28.1586	9.85
	2014	13	36.62	5.85	22.43	64.21	53.84	28.332	12.25
	2015	13	44.93	1.21	19.22	55.03	55.53	28.5124	16.92
	2016	13	47.1	2.84	22.48	59.03	62.71	28.7552	6.72
Stanbic IBTC	2007	14	59.56	0.79	11.18	58.88	40.16	27.7458	18.26
	2008	14	66.07	1.34	26.72	66.03	40.63	28.1614	12.98
	2009	14	63.37	5.32	27.99	69.62	45.46	28.0906	8.12
	2010	14	66.87	2.68	26.42	69.95	38.57	28.2338	6.83
	2011	14	63.65	3.77	26.72	70.17	37.92	28.4411	8.93
	2012	14	63.36	3.46	24.1	72.03	36.54	28.5428	8.01
	2013	14	61.12	1.03	22.08	70.63	39.27	28.7028	6.28
	2014	14	34.85	0.84	16.57	65.93	46.24	28.8684	8.67
	2015	14	54.76	2.26	21.92	68.59	54.17	28.8684	6.87
	2016	14	43.61	1.24	17.83	59.73	50.36	29.0877	10.87
Unity Bank	2007	15	68.57	5.03	37.82	52.41	45.15	27.6554	9.62
	2008	15	41.93	2.46	25.9	60.39	58.2	27.9633	10.74
	2009	15	40.89	7.36	31.45	69.03	62.15	28.2097	6.38
	2010	15	47.61	6.6	20.51	65.83	56.27	28.3128	10.25
	2011	15	60.13	1.62	14.56	70.7	46.47	28.5494	18.26
	2012	15	47.59	3.35	16.21	79.42	48.07	28.6248	16.57
	2013	15	51.9	2.82	13.32	77.32	46.29	28.8235	19.04
	2014	15	31.95	3.32	14.59	72.72	53.46	28.8736	15.87
	2015	15	51.5	21.88	16.52	69.94	47.75	28.8574	13.87
	2016	15	41.67	25.98	16.6	69.18	56.32	28.9186	12.94

Source: CBN Statistical Bulletin Vol. 27, December 2016 & Individual Bank Annual Financials Statement.