DETERMINANTS OF FINANCIAL PERFORMANCE OF LISTED PRIMARY MORTGAGE BANKS IN NIGERIA

By

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A DISSERTATION SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES, AHMADU BELLO UNIVERSITY, ZARIA IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF A MASTER OF SCIENCE (M.Sc.) DEGREE IN BUSINESS ADMINISTRATION

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Declaration

I declare that the work in this dissertation entitled "Determinants of Financial Performance of Listed Primary Mortgage Banks in Nigeria" has been carried out by me in the Department of Business Administration. The information derived from the literature has been duly acknowledged in the text and a list of references provided. No part of this dissertation was previously presented for another degree or diploma at this or any other institution.

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Certification

This dissertation entitled "DETERMINANTS OF FINANCIAL PERFORMANCE OF LISTED PRIMARY MORTGAGE BANKS IN NIGERIA" by Ummulkhairat Gombe ADAMU meets the Regulations Governing the Award of the Degree of Master of Science (M.Sc.) in Business Administration of the Ahmadu Bello University, Zaria, and is approved for its contribution to knowledge and literacy presentation

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Dedication

This study is dedicated to my parents Alhaji Adamu Yaro Gombe (A.Y.) and Hajiya Hafsat A.Y.

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Abstract

The bane of housing delivery and the development of a virile mortgage system in Nigeria has always been that of accessing land and low-cost finance. Primary Mortgage Banks (PMBs) were established to facilitate housing delivery in Nigeria through the institution of a private-sector arrangement to supplant the public sector which had proved ineffective over the years in that respect. This study examines the determinants of financial performance of listed primary mortgage banks in Nigeria. The study employed the use of explanatory research design and secondary data contained in the annual reports and accounts of listed PMBs for a period of ten (10) years (2004 to 2013) was used for the study. The result of the pooled Ordinary Least Square (OLS) multiple regression analysis revealed a negative significant effect of capital adequacy and bank size on the financial performance (return on equity) of listed PMBs in Nigeria. It also shows that liquidity is insignificant to explain the financial performance of listed PMBs in Nigeria. It therefore recommends that to ensure maximum return of equity holding of listed primary mortgage banks in Nigeria, emphasis should be given to capital adequacy and bank size. This is because of the negative but significant effect they have on the financial performance of listed PMBs in Nigeria.

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CHAPTER ONE
INTRODUCTION

1.1 Background to the study

Performance of a corporation whether profit or non-profit making is of great importance as it serves as an indicator of a healthy economy of a nation (Almajali, Alamro & Al-Soub, 2012). According to Iswatia and Anshoria (2007), performance is the function of the ability of an organisation to gain and manage its resources in several ways to develop competitive advantage. The performance of Primary Mortgage Banks (PMBs) in the economy is usually of major concern to most governments, because PMBs play a significant role in the mortgage sector by serving as the primary lenders in the sector. The sector's contribution to Gross Domestic Product (GDP) stood at 0.5 percent (Kumo, 2014). Furthermore, stakeholders in the housing finance sector are of the view that the sector can contribute up to 10 percent of GDP if more attention is given to mortgage market (Azuh, 2013).

Primary Mortgage Banks (PMBs) are licensed by Central Bank of Nigeria (CBN) and Federal Mortgage Bank of Nigeria (FMBN) to operate as a mortgage outfit that will collect deposit and support individuals and corporations in meeting their housing needs (CBN, 2007). In addition, it serves as financial intermediaries in housing finance sector. These banks operate under the coffers of the National Housing Fund (NHF). NHF (now National Housing Trust Fund) was promulgated by Decree No.3 of 1992, and conferred with the responsibility of facilitating the constant flow of low cost funds for long term investment on housing, to nurture and maintain a stable base for affordable housing finance and to provide incentives for the capital market to invest in property development (Latinwo, 2002 and Sanusi, 2003). According to Adedokun, Akinradewo, Adegoke and Abiola-Falemu (2011), it is in recognition of finance in housing delivery that warrants the setting of PMBs to

facilitate the delivery, being the sole intermediary between the FMBN (apex lending institution in housing matters) and the mortgagors in disbursing the proceeds of NHTF.

Housing plays a pivotal role in growth and national development as it directly affects not only the well-being of the citizenry, but also the performance of other sectors of the economy (Adedeji, 2005). Housing has been universally accepted as the second most important essential human need; as it impacts positively on productivity because a decent house significantly increases workers health, and consequently growth (Adedokun *et al.*, 2011). The provision of this amenity is the primary responsibility of the government of any nation at any given period of time. This is done by putting in place the necessary machinery that will facilitate the availability of this amenities to individuals.

On the other hand, Ajanleko (2001) posited that the enormous public sector efforts have not effectively addressed an expanding housing deficit and escalating construction costs and that such effort must be substantially collaborative with the private sector. Hence, government decided to establish a framework within which such collaboration can effectively address the housing problem.

In light of the above, PMBs were established to facilitate housing delivery in Nigeria through the institution of a private - sector arrangement to supplant the public sector which had proved ineffective over the years in that respect. They were modeled after the building societies in England but their primary purpose was to be NHTF distribution network. At the inception, the regulation and supervision of the PMBs devolved on the FMBN. The supervision/regulation of the sub-sector was however assigned to the CBN by Federal Government (FG) budget pronouncement in 1997 after it had witnessed years of serious instability and distress. The CBN Act No. 24 of 1991 and the BOFIA No. 25 of 1991 were amended to give legal backing to the new supervisory arrangement. In line with the development, the CBN issued revised guidelines

for PMBs in 2000 to define mortgage business to include a number of activities such as granting loans and advances to individuals for the purchase or construction of a dwelling house, improvement or extension of an existing dwelling house, and to accept savings and deposits from members of the public.

In addition, PMBs offer a wide range of mortgage, financial and other banking services towards the realization of housing and business needs of various customers (corporate and individual). The banks also address various housing needs in line with the National Housing Programme (NHP) anchored on the NHF scheme. Furthermore, PMBs have provision for other commercial loans in respect to building houses, renovation of building, overdraft, among others. The banks also render financial advisory services at no cost to their existing and prospective customers in the area of revenue generation, projects financing, cash flow management, international transactions and raising of capital funds.

However, Soludo (2015) observed that the Nigerian housing sector today faces some challenges that must be tackled to make the system provide the required services that would accelerate economic development witnessed in other emerging economies. According to the study, the impact of the operations of PMBs in Nigeria has been below expectation as the banks lacked the wherewithal to mobilise requisite resources for commitment towards the fulfillment of their objectives.

Performance is seen as the result of an activity 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 ethic (Almajali *et al.*, 2012). The appropriate measure selected to assess corporate performance is dependent on the type of organisation to be evaluated, and the objectives to be achieved through that evaluation. Financial performance is a general measure of a firm's overall financial health over a given

period of time. Profitability measures such as Net Interest Margin (NIM), Return on Assets (ROA) and Return on Equity (ROE) are used in measuring the financial performance of banks. The need to assess the financial performance of PMBs is due to the fact that these banks are registered companies operating as financial intermediaries in housing finance sector. They are the direct lenders of the money that the potential homeowners use to purchase a house or other property, paying the mortgage back in monthly installments to the issuing institution, FMBN. They make a large portion of the bank's profit by charging interest on the money loaned to property purchasers. However, a limit exists to the amount of loans the banks can grant. To grant more loans, the bank needs to maintain money in its reserve. Therefore, to increase profit, it needs to obtain more capital.

Determinants of bank performance can be classified into bank specific (internal) and macroeconomic (external) factors (Al-Tamimi, 2010; Aburime, 2005). Internal factors are those factors influenced by the bank management decisions and policy objectives. These factors are basically influenced by internal decisions of management and the board which include bank size, age, capital adequacy, leverage, and asset quality. The external factors are the characteristics of the economy of the country where the bank operates, which are beyond the control of the bank and affect bank performance which include inflation, Gross Domestic Product (GDP) and interest rate.

On the basis of the above backdrop, the study attempts to evaluate the determinants of financial performance of listed Primary Mortgage Banks in Nigeria with a view to ascertaining the factors that affect the financial performance of the banks.

1.2 Statement of the Problem

Primary Mortgage Banks (PMBs) are expected to play a significant role in the mortgage sector. It is on the basis of this recognition that a decree was promulgated clearly defining how they

are to execute their activities of mobilizing savings for housing provision and at the same time creating blocks of mortgages to Federal Mortgage Bank of Nigeria (FMBN). The banks which performed at expected level are estimated to contribute up to 10 percent to Gross Domestic Products (GDP) of Nigeria. Contrary to the expectation, the contribution of mortgage sector to GDP of Nigeria is nothing to write home about as its contributions is not up to even one percent as at the year 2005 and it continues to rise sluggishly from 0.12 percent in 2005 to 0.5 percent as at the year 2014 (Kumo, 2014). That is, the contributions within the last ten years (2005 - 2014) improved from 0.12 percent in 2005 to 0.5 percent as at the year 2014. This situation triggers the need to investigate the performance of the PMBs with the hope of ascertaining the specific factors that are inhibiting their performance at the expected level of 10 percent of the GDP. This is because the PMBs are the key players in the mortgage sector.

There are two basic factors argued in the literature that affect banks performance and are sometimes described as determinants; internal and external. The internal factors are under the control of management while the external factors are beyond the control of management. Although, regulatory authorities in the sector take corrective measures in controlling the external factors, the internal factors are left at the discretion of banks' management and as a result inadequate control seems to exist in managing them. This may be due to lack of thorough empirical investigation of their effect on the banks' performance.

There have been a number of empirical studies conducted on the factors that affect the performance of deposit money banks (Abdullahi, 2013; Ayele, 2012; Omondi & Muturi, 2013; Osuka & Osadume, 2013). However, with the low contribution of mortgage sector to Nigeria's GDP, little has been done on the key players in the sector (primary mortgage banks). Most of the empirical studies conducted on PMBs performance in Nigeria were on the challenges confronting the operations of PMBs in housing financing (Adebamowo, Oduwaye & Oduwaye,

2012), the contributions of primary mortgage institutions to real estate development in Nigeria (Ubom & Ubom, 2014) among others. To the best of the researcher's knowledge, there is a dearth in the literature on the determinants of the financial performance of listed primary mortgage banks in Nigeria.

Against the above backdrop, there is a need to evaluate empirical factors that determine PMBs performance in Nigeria with the hope of ascertaining whether they play significant role in overcoming problems affecting the banks. The determining factors in the context of this work are capital adequacy, bank size and liquidity of the banks under study while performance of the banks is viewed from the perspective of return on equity. In view of the above, the following research questions are raised to help the researcher to focus on critical factors that can determine the success or failure of mortgage banks: To what extent does capital adequacy affect the financial performance of listed PMBs in Nigeria? To what extent does bank size affect the financial performance of listed PMBs in Nigeria? What is the effect of liquidity on the financial performance of listed PMBs in Nigeria?

1.3 Objectives of the study

The broad objective of this study is to determine the financial performance of listed primary mortgage banks in Nigeria. The specific objectives are to;

i) examine the effect of capital adequacy on the financial performance of listed primary mortgage banks in Nigeria.
ii) assess the effect of bank size on the financial performance of listed primary mortgage banks in Nigeria; and
iii) determine the effect of liquidity on the financial performance of listed primary mortgage banks in Nigeria.

1.4 Research Hypotheses

The hypotheses formulated for this study are stated in null form as follows:

H_{01}: Capital adequacy has no significant effect on the financial performance of listed primary mortgage banks in Nigeria.

H_{02}: Bank size has no significant effect on the financial performance of listed primary mortgage banks in Nigeria.

H_{03}: Liquidity has no significant effect on the financial performance of listed primary mortgage banks in Nigeria.

1.5 Significance of the study

This study would be informative to management of primary mortgage banks in Nigeria by revealing the current level of performance achieved by these banks. It will help the management in identifying the financial strengths and weaknesses of PMBs in Nigeria. Also, stakeholders of primary mortgage banks would be guided in making decision on how to design a plan that would be used to improve upon the short-comings of PMBs in Nigeria.

Furthermore, the results generated from this study will help decisions on measures about the factors responsible for the performance of PMBs in Nigeria. It will enable the policy makers in formulating informed policies and also to measure the implications of such policies on the operations of listed primary mortgage banks in Nigeria.

Investors will be well-informed on current issues on the performance of PMBs to enable them assess the actual performance of these institutions regarding their investment. This will go a long way in helping investors in deciding whether to withdraw their share in pursuance of capital gains or maintain their stake in a company. Finally, the study will contribute to existing

body of knowledge by examining the determinants of financial performance of listed primary mortgage banks in Nigeria.

1.6 Scope of the study

This study is conducted on the determinants of financial performance of listed Primary Mortgage Banks (PMBs) in Nigeria. The study covers only primary mortgage banks listed on the floor of Nigerian Stock Exchange (NSE) as at 31 December, 2013. PMBs are the focus of this research work because they play a significant role in the mortgage sector by serving as the key players. Determinants being the independent variable was operationalised by the following dimensions: Capital adequacy, bank size and liquidity while the dependent variable which is PMBs financial performance is operationalised in the area of accounting measure of performance (return on equity). The scope covers the period of ten (10) years (2004 to 2013). This is because the data required for the study is available within this period.

1.7 Limitations of the study

i) The study was limited to three factors (capital adequacy, bank size and liquidity) that determine the financial performance of listed PMBs in Nigeria. Also, the study considered accounting measure of performance (book value) which do not reliably measure ability to absorb losses. Hence, it does not consider other measures of performance like market values of performance measure such as Tobin's Q, price - earnings ratio which reflect current information about asset values.

ii) The R^2 (coefficient of determination) of the study is 0.206 showing that about 21% of the total variation in the dependent variable (return on equity) is explained by variation in the independent variables (capital adequacy, bank size and liquidity). As such, the study did not cover other variables which constitute about 79% of the variation in the dependent variable.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

This chapter reviews existing literature on the determinants of firm performance and how it affects the financial performance of listed Primary Mortgage Banks (PMBs) in Nigeria. It starts by examining the concept of financial performance and measures of financial performance. It also explains the concept of PMBs, overview of housing finance in Nigeria, and determinants of financial performance. Empirical studies on the determinants of financial performance were reviewed. Finally, the chapter explains the theory to be used in determining the financial performance of listed PMBs in Nigeria.

2.2 Concept of Financial Performance

Performance is the result of activities of an organisation or investment over a given period of time. According to Iswatia and Anshoria (2007), performance is the function of the ability of an organisation to gain and manage its resources in several ways to develop competitive advantage. Almajali *et al.,* (2012) opine that performance is a difficult concept, in terms of both definition and measurement. It has been defined as the result of activity, and the appropriate measure selected to assess firm performance is considered to be dependent on the type of organisation to be evaluated and the objectives to be achieved through that evaluation. Similarly, Zeitun and Tian (2007) believe the concept of performance to be a controversial issue in the financial strategy of most corporate organisations due to its multidimensional meanings. Walker and Ruekert (1987) posit that firm performance can be evaluated from different dimensions and no particular business approach can be guaranteed to have equal outcome on all dimensions.

Firm 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. This is not against the law, as it must conform to the morals and ethics (Almajali *et al.,* 2012). In the same vein, Izuagbe (2013) is of the view that a firm performance comprises of the actual input of an organisation as measured against its intended outputs (goals and objectives). These authors view firm performance as the sum total of the outcome of every unit of the organisation. However, some researchers view firm performance based on how the firm succeed in its operation. According to Onimisi (2011) firm performance is seen as the outcome of a firm's strategy or an assessment of how a firm has succeeded in reaching its objectives. Hence, Griffin (2003) described firm performance as the extent to which an organisation is able to meet the needs of its stakeholders and its own needs for survival. This is due to the fact that shareholders and other stakeholders are increasingly becoming more concerned with the continuous liquidity of their firms. Thus, this study adopts Griffin's (2003) definition of firm performance.

In measuring firm performance, different approaches may be adopted depending on the view or perspective of the study. The performance of a firm has to do with how effectively and efficiently it is able to achieve the set goals which may be financial or non-financial. Performance is a set of financial and non-financial indicators which offer information on the degree of achievement of objectives and results (Lebans & Euske, 2006). Hansen and Mowen (2005) posited that there are two kinds of performance; financial and non-financial performance. The financial performance of a firm relates to its motive to maximize profit both to shareholders and on assets (Chakravarthy, 1986) while the non-financial performance is concerned with growth and expansions in relation to sales and market value (Hoffer & Sandberg, as cited in Zeitun & Tian, 2007). Therefore, this study focus on financial performance.

According to Bodie, Kane and Marcus (2005) financial performance is the level of performance of a firm over a specific period of time and expressed in terms of the overall profits or losses incurred over the specific period under evaluation. It is a measure of how well a firm can use assets from its primary mode of business and generate revenues. This term is also used as a general measure of a firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. It can also be referred to as the business independent criteria to assess its overall outcomes, in relation to its own goals. The financial performance of a bank indicates the strength and weakness of that particular bank by properly establishing the association between the items of the balance sheet and profit and loss account.

2.3 Measures of Financial Performance

Alaa and James (1996) described performance measurement as the process of quantifying the effectiveness and efficiency of action while Li *et al.*, as cited in Adnan (2014) asserted that performance measurement is very significant for the effective management of firms as it refers to how well firms can carry out their financial objectives as well as market oriented objectives. According to Liargovas and Skandalis (2008) there are several disciplines regarding how the performance of firms should be measured and the factors that affect firm's financial performance. Firm'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 a company's earnings are bigger than its costs. The third dimension is market premium, or the level at which a company's market value exceeds its book value (Walker, 2001). Also, Heng and San (2011) contend that productivity, profitability, growth or even customer satisfaction are used in measuring firm performance as these tools are closely related.

In measuring the financial performance of banks and other financial institutions, profitability measures such as Return on Asset (ROA), Return on Equity (ROE), Net Interest Margin (NIM) and Earnings Per Share (EPS) are mostly used. The use of profitability is better in ascertaining firm performance because it is more encompassing for raising revenue over costs. Also, profitability measure is the most important performance indicator to explain performance levels of the organisations as it can be used as a single surrogate performance indicator. According to Pandey (2005), profit is the most appropriate measure of corporate performance under competitive market conditions.

Similarly, Almajali *et al.,* (2012) argued that there are various measures of financial performance like Return on Assets (ROA), Return on Equity (ROE) and return on sales. The most used measures of financial performance are ROA (McGuire, Sundgren, & Schneeweis, 1988; Russo & Fouts, 1997; Stanwick & Stanwick, 2000; Clarkson, Li, Richardson & Vasvari, 2008), ROE (Bowman & Haire, 1975), and return on sales (Stanwick & Stanwick, 1998). Furthermore, Lawal (2014) asserts that the most commonly used performance measures are ROA, ROE and ROI. These measures are termed accounting measures. In the same vein, Barbosa and Louri (2005) opined that financial measures such as Return on Investment (ROI), residual income, Earnings per share (EPS), dividend yield, are some of the ratios that can be used to identify the financial strengths, weaknesses, opportunities and threats of banks.

Other measures of financial performance are market performance measures such as price per share to earnings per share, market value to book value of equity and Tobin's Q. Similarly, Murthy and Sree (2003); Alexandru, Genu and Romanescu (2008) opined that profitability ratios such as return on asset, return on equity and net interest margin are mostly used in measuring banks performance. According to Selvarajan, Ramamoorthy, Flood, Guthrie, MacCurtain and Liu (2007), firm performance can be measured financially as a percentage of

turnover, profitability, capital employed and return on asset. Also, Grossman (2000) as cited in Olayiwola (2013) is of the view that; asides return on investment, other variables like Earnings Per Share (EPS) and net income after tax may as well be used as a measure of firm financial performance.

The foregoing discussion on the measures of financial performance in this study leads us to the conclusion that profitability ratios such as ROE, ROA, among others are widely used in measuring the financial performance of banks. However, there are several measures of financial performance but the choice of performance measures by one firm may not be the same with that of another as it depends on the firm and the objective to be achieved.

Return on Assets (ROA) shows the ability of management to acquire deposits at a reasonable cost and invest them in profitable investments (Ahmed, 2009). It shows how efficiently the resources of the company are used to generate income. According to Van Horne (2005), ROA indicates the profitability on the assets of the bank after all expenses and taxes. It is a measure of a company's profitability, equal to a fiscal year's earnings divided by its total assets, expressed as a percentage. It further indicates the efficiency of the management of a company in generating net income from all the resources of the institution (Khrawish, 2011). Wen (2010) as cited in Ojiambo (2014) stated that a higher ROA shows that the company is more efficient in using its resources. ROA is measured as the ratio of earnings after interest and tax to total asset.

$$\text{ROA} = \frac{\text{Earnings after Interest and Tax}}{\text{Total Assets}}$$

However, Cohen, Chang and Ledford (1997) opined that ROA is widely used by market analysts as a measure of financial performance, as it measures the efficiency of assets in producing income.

Earnings Per Share (EPS) play a vital role in evaluating the prospects and predicting future performance of firms. It is considered by most investors to be the single most important metric to use when evaluating a stock and serves as a good indicator of a company's profitability. Olowe (2011) described EPS as profit attributable to each equity share, based on the profit for the period after tax and after deducting minority interests (if it is a consolidated account) and preference dividends but before taking into account extraordinary items, divided by the number of ordinary shares in issue and ranking for dividend in respect of that period. It enables comparison to be made between the company's earnings and its dividend payouts. EPS is measured as the ratio of earnings after interest and tax to average outstanding shares.

$$\text{EPS} = \frac{\text{Earnings after Interest and Tax}}{\text{Average Outstanding Shares}}$$

However, Lawal (2014) asserted that EPS is used for the purpose of evaluating the prices of company's shares and it gives an idea of its growth in earnings over the years.

Net Interest Margin (NIM) is a measure of the difference between the interest income generated by banks and the amount of interest paid out to their lenders (for example, deposits), relative to the amount of their (interest earning) assets. NIM measures the gap between the interest income the bank receives on loans and securities and interest cost of its borrowed funds. It reflects the cost of bank intermediation services and the efficiency of the bank. It is measured by net interest income divided by total earnings assets (Gull, Irshad & Zaman, 2011). The

higher the net interest margin, the higher the bank's profit and the more stable the bank is. NIM is measured as the ratio of net interest income to total earnings asset.

$$NIM = \frac{\text{Net Interest Income}}{\text{Total Earnings Assets}}$$

Thus, NIM is one of the key measures of bank profitability. However, a higher net interest margin could reflect riskier lending practices associated with substantial loan loss provisions (Khrawish, 2011).

Price – Earnings (P/E) ratio is the most important yardstick for assessing the relative worth of a share (Olowe, 2011). Price earnings ratio have more predictability in emerging markets and can be used to predict future returns and particularly to choose the entry/exit timings and country/stock selections. The P/E ratio is a measure of the price paid for a share relative to the annual net profit earned by the firm per share. A high P/E ratio means that investors are paying more for each unit of earnings, so the share is more expensive compared to one with lower P/E ratio. Shiller (2005) considered high level of price earnings ratio as an indication of overheating of stock markets.

$$\text{P/E Ratio} = \frac{\text{Market price per share}}{\text{Earnings per share}}$$

Dividend yield is a financial ratio that measures the amount of cash dividend distributed to common shareholders relative to the market value per share. It is used by investors to show how their investment in stock is generating either cash flows in the form of dividends or increases in asset value by stock appreciation (Olowe, 2011). Dividend yield measures the return on a dividend as a percentage of the stock price. It's calculated by dividing the annual dividend per share by the price per share. A high dividend yield indicates a stock with low

demand from investors, which depresses the share price while low dividend yield indicates high demand from investors.

$$\text{Dividend Yield} = \frac{\text{Dividend per share}}{\text{Market price per share}} * 100$$

Return on Capital Employed (ROCE) is a profitability ratio that measures how efficiently a company can generate profits from its capital employed by comparing net operating profit to capital employed (Enekwe, Nweze & Agu, 2015). It is an important ratio in that it measures the relationship between the net profit and the capital employed or the total net assets. ROCE shows the effect of sales, different assets, and various costs on the total company results or position. Therefore, ROCE can be expressed as net operating profit to capital employed. A higher ROCE indicates more efficient use of capital.

$$\text{ROCE} = \frac{\text{Net operating profit}}{\text{Capital employed}}$$

2.3.1 Return on Equity (ROE)

Return on Equity is a measure of a bank's profitability and growth potential. It is the rate of return to shareholders or the percentage return on equity invested in the bank. It measures how well a company use reinvested earnings to generate additional earnings, equal to a fiscal year's after-tax income (after preferred stock dividends but before common stock dividends) divided by book value, expressed as a percentage. According to Van Horne (2005), ROE indicates the profitability to shareholders of the bank after all expenses and taxes. A firm that has a high return on equity is more likely to be one that is capable of generating cash internally. Thus, the higher the ROE the better the company is in terms of profit generation (Khrawish, 2011). ROE is measured as a ratio of profit after tax to equity.

$$\text{ROE} = \frac{\text{Profit after Tax}}{\text{Equity}}$$

Thus, financial performance in the context of this work will be measured in terms of Return on Equity (ROE). This is because a firm that has a high return on equity is more likely to be one that is capable of generating cash internally.

2.3.2 Shortcomings of financial performance measures

Financial performance measures, which can also be classified as accounting measures or traditional measures of performance is based on information and techniques available in financial accounting, cost accounting, management accounting. According to Agarwal (2015), the following are the shortcomings of the traditional measures.

i. The traditional measures are backward looking. That is, they focus on past financial performance rather than what managers are doing to create future shareholder value.
ii. Traditional performance measures are based on the use of financial ratios obtained from financial statements and annual reports and account of organisations. As such, the data shown in the financial statements and annual reports may be window dressed which does not show the actual position of the banks.
iii. The accounting measures instigate managers to focus on the short term. Many organisations collect information which are only financial and operational data. Focusing only on the short term is one of the reasons that organisations struggle to survive over the long haul. These organisations often do well for a year or two, but end up failing in the long run.
iv. Traditional performance measures focus more on cost and revenue data and less on the process. Most of the time it provides irrelevant or misleading information.
v. Traditional performance measures are based on tracking single dimensions of performance and they do not provide an integrated or holistic view of performance. Since performance is measured in specific areas only, managers tend to find themselves unable to assess whether they have implemented their strategies effectively.

vi. Traditional performance measures encourage competition and discourage teamwork. Performance reports often compare one business unit with another's performance, rather than comparing each to its own performance and goals. This is a subtle form of discouraging teamwork.

2.4 Concept of Primary Mortgage Banks

Primary Mortgage Institutions (PMIs) also known as Primary Mortgage Banks (PMBs) were established with the enactment of Decree No. 53 of 1989 to mobilize savings for the development of the housing sector. Federal Mortgage Bank of Nigeria (apex mortgage bank) under the mortgage institution decree No. 53 of 1989 has the authority and function of monitoring, controlling and regulating the activities of all PMBs throughout the country (CBN, 2007).

PMBs are registered companies operating as financial intermediaries in housing finance sector. The Mortgage Institutions Act, 1989 made provisions for establishing and licensing of PMBs to grant loans and advances to individuals for the purchase or construction of a dwelling house; improvement or extension of an existing dwelling house; and to accept savings and deposits from members of the public and to pay interest thereon.

In a CBN review conducted by Kama, Yakubu, Bewaji, Adigun, Adegbe and Elisha (2013) on the performance of PMBs, it shows that they have done poorly from inception, with only 34.2 per cent of the 280 licensed banks at inception in 1989 when the Mortgage institutions Act was enacted, till 1997 when their supervision was transferred to the Central Bank of Nigeria. Out of the 195 handed over to the CBN, only 96 were left at the end of 2003 after another round of licence revocation, which saw 99 losing their licences as a result of poor performance and insolvency. The institutions were constrained by inadequate capital base, poor corporate governance and lack of well-defined business philosophy, Oni (2005).

In 2003, the CBN provided a regulatory framework for the operation of the PMBs. As contained in the guidelines, the PMBs are allowed to grant loans or advances for the purchase or building, improvement or extension of a dwelling/commercial house, and acceptance of savings. Others areas of operation include deposits, management of pension funds/schemes, performing estate management duties as well as offering of project consultancy services for estate development and engaging in estate development through loan syndication. However, the guidelines limited the activities of PMBs to the provision of mortgage finance and excluded other related activities, such as the provision of estate management duties. The PMBs criticized the guidelines as being too stringent and claimed that the conditions in the guidelines limited the institutions from carrying out their assumed operations.

2.5 Housing Finance in Nigeria

Governments all over the world acknowledge that housing is one of the surest means for the creation of jobs, eradication of poverty, reduction of corruption and ensuring the security of the nation (Kayode, 2011). Housing has remained grossly inadequate to cater for an estimated Nigerian population of over 160 million people (National Bureau of Statistics, 2014). In view of providing adequate housing finance aimed at improving home ownership to redress the estimated housing deficit of 14-17 million units, the country requires about ₦49 trillion to finance the deficit (Tanimu, as cited in FMBN, 2009). According to a study conducted by Enhancing Financial Innovation and Access; EFInA (2010), the World Bank estimated that about 720,000 housing units need to be produced annually for the next 20 years to close the housing gap in the country.

In Nigeria, the provision of affordable housing for the citizenry has remained the principal focus of every successive government. Particular efforts include the establishment of the Lagos Executive Development Board (LEDB) in 1928; the Nigerian Building Society in 1956;

Formation of Housing Corporations in 1956 and 1960; National Council on Housing in 1971; Federal Mortgage Bank of Nigeria (FMBN) in 1977; National Housing Policy (NHP) in 1991, Establishment of Primary Mortgage Institutions (PMIs) in 1991; the National Housing Fund (NHF) in 1992 and National Housing Trust Fund (NHTF) in 2005 (Olotuah & Bobadoye, 2009).

Finance has been identified as one of the most critical factors influencing housing provision because housing requires a huge capital outlay which is even beyond the capacity of the low - middle income group that constitute the Nigerian populace. Sani (2003) as cited in Sani (2006) asserted that 75 percent of the Nigerian population is estimated to be of the low-income group. In a study conducted by Folorunso, Khan, and Olowoyo (2012), finance serves as a major hindrance to effective production or acquisition of affordable housing especially among the low and middle income earners in Nigeria. Odu (1992) asserted that finance is required in order to actualize the goals of the various housing policies and schemes established by the government. Also, lack of soft loan serves as one of the major obstacles against urban housing production in Nigeria as identified in the study of Olusola, Aina and Ata (2002).

However, there are other factors that serve as hindrances to home acquisition like slow bureaucratic procedures, land accessibility, unstable macroeconomic environment (such as inflation) and poor structure of mortgage but several studies have shown that finance serves as a major hindrance because housing requires a huge capital outlay. Loans are available to prospective contributors at soft interest rate issued by the PMBs at 6 percent but studies have shown that they lack access to these funds.

Ogunsemi and Abiola-Falemu (2006) affirmed that the disbursement process, terms and conditions to be met are cumbersome and tend to inhibit early approval and subsequent disbursements are hindrances to PMIs active involvement in the operation of the scheme.

Similarly, Emoh and Nwachukwu (2011) observed that most PMIs have been hamstrung in participating effectively in the implementation of the scheme because the disbursement process, terms and conditions are presently cumbersome and tend to inhibit early approval and by extension disbursement.

It is on the importance of housing finance that government most often find ways to improve existing housing and housing policies such as credit policies, state/municipal government financing, specialized institutions, FMBN, Federal Mortgage Finance Limited (FMFL), PMBs and NHF (Sanusi, 2003).

Ajanleko (2001) posits that the enormous public sector efforts have not effectively addressed an expanding housing deficit and escalating construction costs and that such efforts must be substantially collaborative with the private sector. Hence, government decided to establish a framework within which such collaboration can effectively address the housing problem. In light of the above, PMBs were established to facilitate housing delivery in Nigeria through the institution of a private - sector arrangement to supplant the public sector which had proved ineffective over the years in that respect.

Mustafa (2002) stated that housing finance during the colonial days in Nigeria was limited to expatriates and a few selected indigenous senior civil servants in urban centers. As part of the measures to promote a private sector driven housing programme, the NHP of 1991 was designated with the objective of encouraging private sector participation in the provision of affordable housing for the Nigerian citizens (Kama *et al.*, 2013). The performance of the national housing policies was not better either, with an achievement rate of 0.84 percent during the national housing programme, as only 1,014 housing units were constructed out of the planned 121,000 housing units.

However, despite the effort of PMBs, the delivery of adequate and affordable housing in Nigeria, over the years, has not met the desired target (Usman, 2015). Mailafia (2007) argued that an appropriate regulatory reform should be put in place to reposition the PMBs because awareness about these banks is almost unknown among many people. According to the study, it will enable the sub-sector play the expected roles for the delivery of affordable housing stocks on sustainable basis particularly to low income group through resource mobilization within the framework of national policy on housing finance.

2.6 Determinants of Financial Performance

The study on the determinants began with Short as cited in Said and Tumin (2011) in which bank performance are classified into internal and external factors. Also, determinants of bank performances can be classified into bank specific (internal) and macroeconomic (external) factors (Al-Tamimi, 2010; Aburime, 2005).

Internal factors are individual bank characteristics which affect the banks performance. These factors are basically influenced by internal decisions of management and the board. The external factors are the characteristics of the economy of the country where the bank operates, which are beyond the control of the bank and affect bank performance. Ongore and Kusa (2013) argued that internal factors differ from bank to bank and are within the scope of the bank to manipulate. These include capital size, size of deposit liabilities, size and composition of credit portfolio, interest rate policy, labour productivity and state of information technology, risk level, management quality, bank size, and ownership. On the other hand, external factors are sector-wide or country-wide factors which are beyond the control of the company and affect the profitability of banks. Gross Domestic Product (GDP), inflation, interest rate and political instability are macroeconomic variables that affect the performance of banks.

According to Gavrea, Ilieş and Stegerean (2011), examining the determinants of firm performance enables the identification of those factors that should be treated with an increased interest in order to improve organisational performance. Although, both the bank specific and macroeconomic factors affect the performance of banks (Flamini, Valentina, McDonald & Liliana, 2009) but most studies conducted in relation to bank performance focused on bank specific factors that affect the overall performance of banking sector (Chantapong, 2005; Olweny & Shipho, 2011; Heng & San, 2011). In this regard, this study focused on bank specific factors that affect the financial performance of banks.

2.6.1 Capital Adequacy

Bank capital plays an important role in the safety and soundness of individual banks and the banking system. Capital strength is an important internal determinant of bank profitability (Said & Tumin, 2011) and a prime requirement for the smooth operation of banking firms (Seelanatha, 2007). It determines the optimum amount of money (equity, retained earnings, and other reserves) that a bank must have to be able to take certain levels of risk endangering deposits funds, or its existence. Aspal and Dhawan (2014) posited that capital adequacy is an indicator which determines the financial health and soundness of a bank. Adequate capital held by a bank provides protection to investors' interest and it enhances the stability and efficiency of a bank.

A bank's capital strength can be seen as an indicator of its ability to face risk related to insolvency. Athanasoglou, Brissimis and Delis (2008) suggested that capital strength is a better model as an internal determinant of bank profitability, as higher profits may lead to an increase in capital. This implies that well-capitalized banks face lower risks of bankruptcy. A strong capital base implies a lower default risk of the bank. Consequently, banks with healthier capital strength incur lower funding costs than banks with low capital strength. On the other hand,

since capital is considered to be one of the most expensive forms of liabilities in terms of expected return, holding capital above the regulatory minimum is a credible signal of credit worthiness on the part of the bank (Seelanatha, 2010). Thus, capital adequacy in this context refers to a measure of a bank's financial strength by using its capital and assets.

Ekundayo as cited in John and Oke (2013) believed that adequacy of capital will help to enhance and structure the financial resources of an organisation with a view to enlarging the size of long-term funds available to the company. Moreover, maintaining a minimum capital ratio, which aims to reduce gambling incentives, is a major prudential regulation for banks (Hellmann, Murdock & Stiglitz, 2000). According to John and Oke (2013), the mandatory capital ratio help to set corresponding profit target for banks. The Capital Adequacy Ratio (CAR) is propounded to ensure that banks can take up a reasonable level of losses arising from operational losses. The higher the CAR, the stronger the bank and the more will be the protection of investors. Remi (2012) stated that the standard CAR set by Banks and Other Financial Institutions Act (BOFIA) is 5 percent while the international standard is 8 percent under International regulatory framework for banks (Basel III).

According to Wirnkar and Tanko (2008), capital adequacy can be measured using a ratio of total assets to total shareholders' funds, total shareholders' funds to total assets, total shareholders' funds to total net loans, total shareholders' funds to total deposits, shareholders' funds to contingency liabilities, or total shareholders' funds to total risk weighted assets (non-performing loans). In the context of this work, capital adequacy will be measured using total shareholders' funds to total assets ratio. It shows the proportion of a unit naira of equity to a unit naira of asset. The higher the value of this ratio, the better the financial health of a bank. This measure will be adopted for this study because Konishi and Yuguda (2004) opine that the implementation of capital adequacy ratio requirements reduces risk taking behaviour of banks.

2.6.2 Asset Quality

Asset quality is an aspect of bank management that entails the revaluation of a firm asset in order to facilitate the measurement of the level and size of credit risk associated with its operation. Misra and Aspal (2013) opined that the quality of asset is an important parameter to examine the degree of financial strength. Asset quality of a bank is primarily assessed on the basis of its ability to recover the outstanding loans and advances made in due time. Hence, percentage of classified loan to total loan granted is considered as the principal ratio for judging the quality of the assets. Demirgue-Kunt, Whalen, as cited in Abata (2014) opined that before a bank can be declared bankrupt, a sizeable amount of non-performing loans must exist since bank asset quality is an indicator for the liquidation of banks.

Baral (2005) suggested that credit risk in the form of non – performing assets (NPAs) is one of the crucial factors that have an impact on the financial health of a bank. The extent of the credit risk depends on the quality of assets possessed by a bank. The objective of measuring asset quality is to ascertain the composition of NPAs as a percentage of the total assets (Aspal & Dhawan, 2014). Other measures of asset quality are the ratio of Net non – performing assets (NPAs) to net advance, total investments to total assets ratio.

2.6.3 Management Competence

Management competence is an essential component of the CAMEL model that guarantee the growth and survival of a bank (Misra & Aspal, 2013). Management competence means adherence with set norms, ability to plan and respond to changing environment, leadership and administrative capacity of the bank. The management capacity of banks can be attributed to a number of variables, such as operating ratio, profit per employee, expenses per employee, and gross earning assets to total assets.

2.6.4 Earnings Power

Earnings power is an important criterion which highlights the quality of income in terms of income generated from lending operation by a bank. Earnings strength quantifies the performance of the institution to increase and maintain the total worth through earnings from operations (Aspal & Dhawan, 2014). Dechow and Schrand (2004) opined that high earnings quality should reflect the firm's current operating performance and a good indicator of future operating performance.

Misra and Aspal (2013) opined that earnings power primarily determines the profitability of bank and explains its sustainability and growth of future earnings. Basic Earning Power (BEP) ratio is a measure that calculates the earning power of a business before the effect of the business income taxes and its financial leverage. It is calculated by dividing earnings before interest and taxes (EBIT) by total assets. The higher the BEP ratio, the more effective a company is at generating income from its assets. Other ratios used in measuring earnings power are net profit after tax to total assets, net profit after tax to total shareholders' funds or interest income to total income (Wirnkar & Tanko, 2008). In the context of this work, earnings power will be measured using the ratio of earnings before interest and tax to net assets. It measures a unit yield of profit to a unit value of assets. The higher the value of this ratio, the better the financial health of the bank.

2.6.5 Bank size

The size of the firm affects its financial performance in many ways. According to Almajali *et al.,* (2012), large firms can exploit economies of scale and scope and thus being more efficient compared to small firms. In addition, small firms may have less power than large firms; hence they may find it difficult to compete with the large firms particularly in highly competitive

markets. On the other hand, as firms become larger, they might suffer from inefficiencies, leading to inferior financial performance.

According to Bateni, Vakilifard and Asghari (2014), market values of equity of the firm can be used to measure the size of a firm. Yonas (2015) opined that bank size can be measured by natural logarithm of total assets. Therefore, for the purpose of this study, natural logarithm of total assets is adopted because bank size is an important determinant of firm performance; with increased size, firms are able to spread fixed costs over more output, hence enjoying economies of scale.

2.6.6 Liquidity

Liquidity risk is considered as an important internal determinant of bank profitability because it can be a source of bank failures (Said & Tumin, 2011). It arises from the possible inability of a bank to accommodate decreases in liabilities or to fund increases in assets (Athanasoglou *et al.,* 2008). Seelanatha (2007) views liquidity as the ability to fund increases in productive assets and meet short-term operational obligations. To avoid insolvency and prevent liquidity crises, banks often hold liquid assets that can be easily converted into cash as a buffer (Heffernan, as cited in Seelanatha, 2010). Furthermore, Gill and Mathur (2011) opine that firms with a lower level of liquidity will have more cash constraints while those that are able to maintain higher liquidity levels will face less severe financing constraints.

According to Van Horne (2002), liquidity ratios are used to judge a firms' ability to meet its short term obligation. Liquidity ratio is a class of financial metrics that is used to determine a company's ability to pay off its short term debts obligation. It allows assessment of whether a company is likely to be able to pay its bills. It shows the ability to convert an asset to cash quickly and reflects the ability of the firm to manage working capital when kept at normal levels. The higher the value of the ratio, the larger the margin of safety that the company

possess to over short-term debts. The Monetary Policy Committee (MPC) of the Central Bank of Nigeria in 2008 reviewed the major domestic and international macroeconomic developments in order to ensure the smooth functioning of the financial markets and the economy in general. MPC decided to lubricate the system by reducing liquidity ratio from 40 percent to 30 percent. Banks are required to retain the liquidity ratio at 30 percent. Remi (2012) stated that the standard liquidity is 40 percent while 20 percent is problematic

According to Wirnkar and Tanko (2008), liquidity can be measured using a ratio of total net loans to total deposits, demand liabilities to total deposits, or gross loans to total deposits. In the context of this work, liquidity will be measured using gross loans to total deposit ratio. This ratio shows how a bank has tied its deposit in less liquid assets. The higher the value of this ratio, the weaker the financial health of a bank. This measure will be adopted for this study because liquidity is the basis for efficient operation of a bank.

Therefore, capital adequacy, bank size and liquidity are considered as determinants of the financial performance of listed primary mortgage banks in Nigeria.

2.7 Empirical Studies on Financial Performance of Listed Primary Mortgage Banks

Empirical studies on the performance of Primary Mortgage Banks (PMBs) in Nigeria looked at PMBs performance on housing financing. Adebamowo, Oduwaye and Oduwaye (2012) investigated the structure and challenges confronting the operations of the PMBs in Lagos. Using 160 copies of questionnaire and oral discussion, the study found NHF policy, structure of PMBs, the national economic climate, high cost of building materials and public apathy, difficulty of access to land and land documentation constraints, poor collateral, high interest rates and competitive finance market as major challenges confronting PMBs operations.

Also, Ubom and Ubom (2014) examined the contributions of Primary Mortgage Institutions (PMIs) to real estate development in Nigeria from 1992-2012. Narrative and descriptive research designs were used for the study. Using simple percentages and ratios, the study found that rigid regulatory policies and insufficient fund hinder the smooth operations of the PMIs and their contributions to real estate development in the economy.

However, these studies measured PMBs performance in terms of housing delivery whereas using financial performance measures would have shown a better result in terms of their operations as it gives a clear picture of the firm.

There are few studies which were conducted in Kenya that focused on mortgage and the financial performance of banks. Ndururi (2012) assessed the effect of mortgage on financial performance of banks in Kenya. Using multiple regression on 44 commercial banks in Kenya, the study found that there is a positive relationship between bank performance and mortgage financing. However, the result of the study would have been more robust if it covered institutions which finance mortgages as the commercial banks only offer mortgage in the market.

In contrast, Ojiambo (2014) evaluated the effect of real estate finance on the financial performance of listed commercial banks in Kenya from 2009-2013. Using multiple regression analysis, the study found that mortgage finance had a strong negative effect on the financial performance of listed commercial banks in Kenya. Furthermore, liquidity and cost of operations also had a strong effect on the financial performance of commercial banks. However, the scope covered by the study is short and therefore, the data used is limited which might be inadequate for any improvement in the performance of banks. There would have been a more improved result if the period covered by the study is increased.

Most of the empirical studies conducted on determinants of firms' financial performance were on Deposit Money Banks (DMBs). These studies have shown a significant relationship between capital adequacy, bank size and liquidity on financial performance of banks. Osuka and Osadume (2013) examined the major determinants of the financial performance of quoted DMBs in Nigeria within the period 2001 to 2010. Using regression analysis, the study found that asset quality, capital adequacy and employee motivation apart from profits are key success factors in the financial performance of Banks. However, the finding cannot be generalized for all banks due to the limited sample used in the study. This imply that the result might differ if a larger sample is used.

Abdullah (2013) evaluated the performance of banks in Bangladesh from 2008 to 2012. Using ordinary least square regression, the study found that high debt equity ratio, capital adequacy and loan to asset ratio has significant impact on the performance of banks. In the same vein, Ayele (2012) investigated the determinants of private commercial banks profitability in Ethiopia. Using panel data and multiple linear regressions from 2002 to 2011, the study found that capital adequacy, managerial efficiency, bank size and level of GDP, and regulation have a strong influence on the profitability of private commercial banks in Ethiopia. The result of these studies support the argument of the Resource Based View Theory.

Asikhia and Sokefun (2013) employed the use of linear regression on panel data and questionnaire to examine the effect of capital adequacy and the profitability of banks in Nigeria within the period 2006 to 2010. The findings of the primary data revealed a non-significant relationship but the secondary data analysis showed a positive and significant relationship between capital adequacy and profitability of banks. However, the scope covered by the study is short and therefore, the data used is limited which might be too inadequate for any

improvement in the performance of banks. There would have been a more improved result if the period covered by the study is increased.

Tabari, Ahmadi, and Toyeh (2013) examined the effective factors on profitability of commercial banks. The study employed panel data regression technique for nine commercial banks in Iran during 2006-2010. The study found that bank's size, management efficiency and capital adequacy ratio have a positive effect on the performance of commercial banks while operating efficiency, gearing ratio and non-performing loans have a negative effect on the performance.

In another study, Omondi and Muturi (2013) investigated the factors affecting the financial performance of listed companies in Nairobi within the period 2006-2012. Using Pearson Correlation and Multiple Regression, the study found that leverage had a significant negative effect on financial performance while liquidity, company size and company age had a significant positive effect on financial performance. The finding of this study may have been influenced by the nature of data available in the studied country.

Also, Seelanatha (2011) employed the use of simple regression to examine the determinants of performance in Chinese firms' within the period 1999 to 2007. The study found that operational liquidity, growth and growth potential, asset structure, and size have significant effect on firms' profitability. The finding of this study is in line with the proposition of resource based view theory and this may be as a result of the bank-specific determinants employed in the study.

Lukorito, Muturi, Nyang'au, and Nyamasege (2014) employed the use of simple linear regression to assess the effect of liquidity on profitability of commercial banks in Kenya from 2009 to 2013. The study found that liquidity has statistically significant and positive relationship with banks' profitability. Also, the study used Multiple Regression Model to

analyse the effect of other factors affecting the profitability (bank size, liquidity, deposit liability and banking risk) on profitability of commercial banks. It shows that of all the variables, liquidity has the greatest effect on profitability of commercial banks.

In contrast, other studies found a negative relationship between capital adequacy, bank size and liquidity on financial performance of banks. Buyung, Gholamreza and Alireza (2012) examined the determinants of bank performance in Indonesia within the period 1994-1999. Using pooled cross-sectional, time series and dynamic panel data models, the study found that loans to business groups, debt-to-total assets, and capital adequacy ratio has a negative effect on bank performance. However, using a single tool of analysis may bring about justifiable result instead of combining several tools.

Ongore and Kusa (2013) examined the determinants of financial performance of commercial banks in Kenya within the period 2001 to 2010. Using Linear Multiple Regression Model and Generalized Least Square (GLS) on panel data to estimate the parameters, it found that bank specific factors significantly affect the performance of commercial banks in Kenya, except for liquidity variable. But the overall effect of macroeconomic variables was inconclusive at 5% significance level. The moderating role of ownership identity on the financial performance of commercial banks was insignificant. However, this finding may occur as a result of macroeconomic variables used in the study. It would have shown a better result if only bank specific factors have been used.

Similarly, Tesfaye (2014) investigated the determinants of Ethiopian banks performance considering bank specific and external variables on selected banks' profitability within the period 1990-2012. The empirical investigation uses the accounting measure Return on Assets (ROA) to represent banks' performance. The study found that bank specific variables by large explain the variation in profitability. In addition, bank's capital and liquidity status are not

significant to affect the performance of banks. On the other hand, bank size and macro-economic variables such as real GDP growth rates have no significant impact on banks. However, this study did not mention the technique adopted to ascertain the appropriateness and otherwise of the findings.

Swarnapali (2014) investigated the impact of bank-specific factors and financial performance of Licensed Commercial Banks in Sri Lanka within the period 2009 to 2012. Using regression coefficients, the study found that operating expenses and bank size significantly affect banks performance while credit ratio, liquidity ratio and capital strength ratio are not statistically significant and do not contribute towards performance of licensed commercial banks in Sri Lanka. However, the scope covered by the study is short and therefore, the data used is limited which might be inadequate for any improvement in the performance of banks. There would have been a more improved result if the period covered by the study is increased.

Using bank-specific and macroeconomic variables, Tabari, Ahmadi and Emami (2013) employed the use of panel data within the period 2003-2010 to examine the effect of liquidity risk on the performance of commercial banks in Iran. The study found that bank's size, bank's asset, and inflation improve the performance of banks but credit risk and liquidity risk will not improve banks' performance. Also, Madishetti and Rwechungura (2013) used internal and external factors within the period 2006-2012 to determine the factors which influence banks' profitability in Tanzania. Using multiple regression, the study found that internal determinants which influence banks profitability are especially capital adequacy, operating efficiency, liquidity risk, and bank size and their relation with banks' performance were not statistically significant.

2.7.1 Summary of empirical studies reviewed

Most of the literature reviewed shows that various studies have been conducted on the determinants of financial performance but none of these studies examines how these determinants affect the financial performance of listed primary mortgage banks in Nigeria. A review of the prior studies reveals that there exists mix findings on the factors that determine the financial performance of deposit money banks.

Also, most of the studies reviewed did not combine all the variables employed in the study (capital adequacy, bank size and liquidity) as Abdullahi (2013) employed the use of debt to equity ratio, capital adequacy and loan to asset ratio; Ayele (2012) capital adequacy, managerial efficiency, bank size and GDP; Buyung, Gholamreza and Alireza (2012) loans to business groups, debt to total assets, and capital adequacy; Osuka and Osadume (2013) asset quality, capital adequacy and employee motivation; Madishetti and Rwechungura (2013) capital adequacy, operating efficiency, liquidity risk and bank size; and Tesfaye (2014) bank's capital, liquidity, bank size and GDP growth rates. In fulfilling this gap, this research determines the financial performance of listed primary mortgage banks in Nigeria.

2.8 Theoretical Framework

2.8.1 Theory of Constraint (TOC)

The Theory of Constraint (TOC) is a systems-management philosophy developed by Eliyahu M. Goldratt in the early 1980s. The fundamental thesis of TOC is that constraints establish the limits of performance for any system. TOC advocates suggest that managers should focus on effectively managing the capacity and capability of these constraints if they are to improve the performance of their organisation.

According to Goldratt (1986), the underlying premise of the theory of constraints is that organisations can be measured and controlled by variations on three measures: throughput, operational expense, and inventory. Inventory is all the money that the system has invested in

purchasing things which it intends to sell. Operational expense is all the money the system spends in order to turn inventory into through output. Through output is the rate at which the system generates money through sales.

For most businesses, the goal itself is to make money. However, for many organisations and non-profit businesses, making money is a necessary condition for pursuing the goal. Whether it is the goal or a necessary condition, understanding how to make sound financial decisions based on throughput, inventory, and operating expense is a critical requirement. However, Gupta and Doug (2009) critique TOC as it does not prove a connection between implementation and improved financial performance.

2.8.2 Resource-Based View (RBV)

The origin of the resource-based view can be traced back to earlier research found in works by Coase (1952), Penrose (1959), Stigler (1961), Chandler (1962) and Williamson (1975), where emphasis is put on the importance of resources and its implications on firm performance. This theory was named by Birger Wernerfelt in his article A Resource-Based View of the Firm (1984). RBV theory assumes that a firm has the ability to deliver sustainable competitive advantage when resources are managed such that their outcomes cannot be imitated by competitors, which ultimately creates a competitive barrier. This theory argues that competitive advantage is derived from a firm's internal environment, in which the firm's resource and capacity is the determinant of the firm performance.

The foundations of the resource-based view theory of the firm can be found in the work of Penrose (1959) that conceived the firm as an administrative organisation and a collection of productive resources, both physical and human. Penrose as cited in Conner (1991) extended

this view by claiming that growth and profit are equal factors in explaining firm profitability and value. The resource-based view theory emphasizes the internal resources of the firm as the source of performance and competitive advantage, rather than the external environment. It also focuses specially on the inside of the firm, its resources and capabilities, to explain the profit and value of the organisation (Wernerfelt, 1984; Makhija, 2003). The resource based view supports that the firm specific capabilities along with the available resources are equally significant for creating value through the idiosyncratic resources and thus the firm specific factors are considered key determinants of firms' performance.

Furthermore, this theory was later developed by Barney (1991) who proved a solid foundation upon which others might build, and its theoretical underpinnings were strengthened by Conner (1991), Mahoney and Pandian (1992), Conner and Prahalad (1996) and Makadok (2001), who positioned the resource-based view with regard to various other research fields. However, later criticism came from Priem and Butler (2001), and Hoopes, Madsen and Walker (2003) but their criticism was countered because they focus on the status of the RBV as a theory; the tautology allegation and sustainable competitive advantage. In business reality, senior managers are often not interested whether or not the RBV constitutes a real theory. Instead, they require guidance for achieving competitive survival. Ludwig and Pemberton (2011) opine that any firm operating in today's dynamic external business environment need to focus on competitive survival and their capabilities.

Hawawini, Subramanian and Verdin (2003) argue that industry or external firm factors play a more important role in dictating the influence of firm performance. On the other hand, other studies (Opler & Titman, 1994) suggest that firm specific (internal) factors seem to be the major determinants of the operating performance, and are the main drivers for competitive advantage which is crucial for surviving economic downturns.

Therefore, Resource-Based View (RBV) was used to underpin this study as it suggests that the resources possessed by a firm are the primary determinants of its performance, and these may contribute to a sustainable competitive advantage of the firm. The resource-based view theory provides the internal resource of the firm to serve as the basis for determining the variables to be used in measuring the financial performance of PMBs in Nigeria.

CHAPTER THREE
METHODOLOGY

3.1 Introduction

This study examined the determinants of the financial performance of listed primary mortgage banks in Nigeria. In order to achieve the stated objectives, this chapter outlines and explains the methodological issues relating to the study. It gives explicit explanation in respect of the basic research design, population and sampling design of the study, sources and method used in the collection of data, variables measurement, and the techniques used in analyzing data as well as the justification for methods used. The models used in the study were also discussed.

3.2 Research Design

This study employed the use of explanatory research design also known as causal research design. Explanatory research aim at identifying cause and effect among various variables. It is used to measure what impact a specific change will have on existing norms and assumptions.

Causal effect occurs when variation in one phenomenon, an independent variable, leads to or results, on average, in variation in another phenomenon, the dependent variable.

Bachman (2007) opined that the objective of causal research is to test hypotheses about cause-and-effect relationships. If the objective is to determine which variable might be causing a certain behavior, that is, whether there is a cause and effect relationship between variables, causal research must be undertaken. In order to determine causality, it is important to hold the variable that is assumed to cause the change in the other variable(s) constant and then measure the changes in the other variable(s). This type of research is very complex and the researcher can never be completely certain that there are no other factors influencing the causal relationship, especially when dealing with people's attitudes and motivations. This research design is adopted for this study in order to find and explain the degree to which the independent variables affect the dependent variable used in the study.

3.3 Population of the Study

The population of this study consists of all the Primary Mortgage Banks (PMBs) in Nigeria that were listed on the floor of Nigerian Stock Exchange (NSE) as at 31 December, 2013. This gives a total population of four PMBs. Table 3.1 gives details and the number of listed PMBs that operate therein.

Table 3.1 Names of listed Primary Mortgage Banks in Nigeria

S/No.	Institution
1.	Abbey Building Society PLC
2.	Aso Savings and Loans PLC
3.	Resort Savings and Loans PLC
4.	Union Homes Savings and Loans PLC

Source: NSE Fact Book, 2013.

3.4 Sampling and Sampling Design

For the purpose of this study, census sampling technique is adopted and as such, all the four primary mortgage banks were taken as sample of the study because they are few in number.

3.5 Sources of Data Collection

This study used secondary source of data to examine the determinants of financial performance of listed Primary Mortgage Banks (PMBs) in Nigeria. This is because the estimation of the model adopted in the study requires the use of quantitative data. Data for this study were financial ratios obtained from the financial statements and annual reports and accounts of the listed PMBs under study.

3.6 Methods of Data Collection

The method of data collection for this study is the financial statements of listed primary mortgage banks in Nigeria obtained from Nigerian Stock Exchange (NSE) fact book, 2013. Also, supplementary information was obtained from the institutions websites, available annual reports and accounts of the institutions, publications and articles of the institutions.

3.7 Variables Measurement

The purpose of this study is to examine the financial performance of listed primary mortgage banks in Nigeria. The dependent variable is the performance indicator while the independent variables are the determinants of firm performance. The variables of the study are as follows:

3.7.1 Dependent Variable

This study considered Return on Equity (ROE) of the listed Primary Mortgage Banks (PMBs) as surrogate for performance. ROE is a financial ratio that refers to how much profit a company earned compared to the total amount of shareholder equity invested or found on the balance

sheet. It measures how well a company used reinvested earnings to generate additional earnings. This measure was adopted for this study because stakeholders are increasingly becoming more concerned on the return of their investment. This measure was adopted by Gugong, Arugu and Dandago (2014), and Swarnapali (2014) to measure financial performance.

3.7.2 Independent Variables

This study considered capital adequacy, bank size and liquidity as independent variables.

i) Capital adequacy determines the optimum amount of money (that is, equity, retained earnings, and other reserves) that a bank must have to be able to take certain levels of risk endangering deposits funds, or its existence. This measure was adopted for this study because Konishi and Yuguda (2004) opined that the implementation of capital adequacy ratio requirements reduces risk taking behaviour of banks. This measure was also adopted by Lipunga (2014), Ogboi and Unuafe (2013), Osuka and Osadume (2013), and Swarnapali (2014).

ii) Bank size is an important determinant of firm performance because with increased size, firms are able to spread fixed costs over more output, hence enjoying economies of scale. Size can be measured by natural logarithm of total assets. This measure was adopted by Abdullah (2013) and Omondi and Muturi (2013).

iii) Liquidity shows the ability of the firm to meet its short-term obligations as at when due. This measure was adopted for this study because liquidity is the basis for efficient operation of a bank. This measure was adopted by Almajali, *et al.,* (2012), and Omondi and Muturi (2013).

Table 3.2 Variables Measurement

S/No.	Variables	Measurements
Dependent variable		
1.	Return on Equity (ROE)	$\frac{\text{Profit After Tax}}{\text{Equity}}$
Independent variables		
1.	Capital adequacy	$\frac{\text{Equity}}{\text{Total Assets}}$
2.	Bank size	LOGTotal Assets
3.	Liquidity	$\frac{\text{Loans and Advances}}{\text{Total deposits}}$

3.8 Techniques of Data Analysis

In analyzing the data for this study, regression analysis was employed to determine the predictive powers of the independent variables on dependent variable. Multiple regression analysis was used to assess the effect of independent variables on dependent variable. A multiple regression model was employed to test the research hypotheses at 5% level of significance (95% confidence level). Ordinary Least Square (OLS) was adopted for the study.

3.9 Justification of the Technique

The regression model is useful in providing further understanding on the relationship between the dependent and independent variables of the study. The rationale for the choice of multiple regression technique is that it gives the actual influence of the independent variables on dependent variable. In this case, it is a better tool for bringing out clearly the determinants of the financial performance of listed PMBs in Nigeria. Ordinary Least Square (OLS) was adopted for this study. This is because it is more appropriate as it yields estimator which are best linear, unbiased and efficient. OLS estimates are unbiased and consistent while the main issue associated with Generalized Least Square (GLS) is that the variance-covariance matrix for GLS is unknown. Therefore, an estimation must be used of this matrix. This measure is adopted by Ayele (2012), Madishetti and Rwechungura (2013), and Omondi and Muturi (2013).

3.10 Model Specification

The empirical model employed for examining the determinants of financial performance of listed primary mortgage banks in Nigeria is the multiple regression model. The model is given as:

$$Y_{it} = \alpha_{it} + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \ldots\ldots \beta_n X_{nit} + \varepsilon_{it} \quad \ldots\ldots\ldots\ldots 3.1$$

Where: Y = the dependent variable

α = constant term (*Y*-intercept)

β = the coefficient of the independent variable (slope of the regression line)

x = the independent variables

ε = error term

t = measure of time

i = number of firm observation

For the purpose of this study, the regression equation is formulated thus:

$$ROE_{it} = \alpha_{it} + \beta_1 CAQ_{1it} + \beta_2 BSZ_{2it} + \beta_3 LIQ_{3it} + \varepsilon_{it} \ldots\ldots\ldots\ldots 3.2$$

Where: ROE = Return on Equity

CAQ_1 = Capital adequacy
BSZ_2 = Bank size
LIQ_3 = Liquidity

CHAPTER FOUR
DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter presents, analyses and discusses the data collected for the study. It covers the presentation and analysis of secondary data collected from the financial statements of the sampled listed Primary Mortgage Banks (PMBs) in Nigeria. The hypotheses formulated are tested in this chapter in order to determine the relationship between the dependent variable and the independent variables. The aim is to find out whether the determinants of financial performance have significant effect on the financial performance of listed PMBs in Nigeria. Multiple regression was used to estimate the relationship between the dependent variable and the independent variables. Auto correlation test was employed in order to check for multicollinearity of the variables. Also, other robustness tests were also employed which include normality test.

4.2 Data Presentation

The data collected for the study comprised of Return on Equity (ROE) as dependent variable while capital adequacy, bank size and liquidity were independent variables of the listed primary mortgage banks in Nigeria. The data were panel data producing 40 observations (see Table 4.1) derived from the financial statements of four listed PMBs in Nigeria for the period of ten years (2004 to 2013).

4.2.1 Descriptive Statistics

The descriptive statistics of the variables used in the study is presented in table 4.1. It shows the mean and the standard deviation of the variables used in the study.

Table 4.1 Descriptive statistics (2004 - 2013)

	ROE	CAQ	BSZ	LIQ
Mean	0.3140	0.2040	7.1535	0.5782
Std. Dev.	0.5620	0.2921	0.5718	0.4416
Observations	40	40	40	40

Source: Researcher's Computation (See Appendix)

Table 4.1 reveals that the sampled listed primary mortgage banks in the study have an average performance of 0.3140 in terms of Return on Equity (ROE). This shows that the average rate of return on equity is 31%. The average value of Capital Adequacy (CAQ) and Bank Size (BSZ) are 0.2040 and 7.1535 respectively. This reveals that on average, CAQ is 20% and ERP is 7.15. Also, the results of the descriptive statistics from table 4.1 show that the sampled listed primary mortgage banks in Nigeria have an average performance of 0.5782 in terms of Liquidity (LIQ).

Bank size has the highest standard deviation indicating its low contribution to the model while LIQ has a higher standard deviation than CAQ. This signifies that CAQ variable contributes most to the model. Furthermore, a Pearson Correlation Analysis was performed on all the variables to check for the degree of relationship between them. The result is presented in a correlation matrix in table 4.2.

4.2.2 Correlation matrix

Table 4.2 Correlation matrix of the sampled observation

Variables	ROE	CAQ	BSZ	LIQ
ROE	1.000			
CAQ	-0.298*	1.000		
BSZ	-0.204	-0.329*	1.000	
LIQ	-0.217	0.816**	-0.143	1.000

Source: Statistical Package for Social Sciences Output, version 20 (See Appendix)

***** Correlation is significant at 0.05 level (1-tailed)
** Correlation is significant at 0.01 level (1-tailed)

A correlation analysis was performed to determine the direction and strength of the relationship between the independent and the dependent variable. In determining the strength of the relationship, Pallant (2001) noted that a correlation of zero signifies no relationship, a correlation of 1.0 signifies perfect positive relationship correlation and value of -1.0 signifies negative correlation.

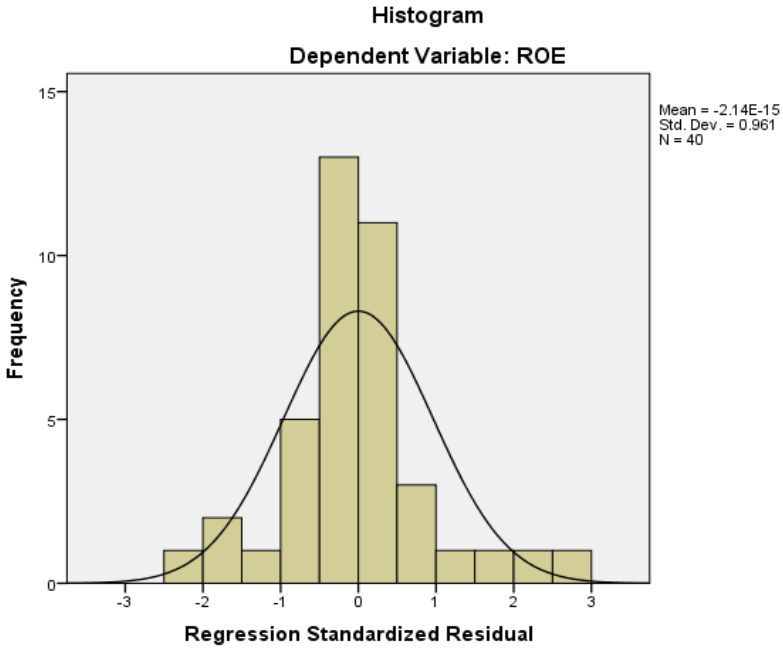
The inter-relationship between the variables was examined using Pearson Correlation Analysis. Table 4.2 presents the correlation of the variables under study. It shows that ROE has a negative correlation with CAQ and is significant at 5%. On the other hand, ROE has a negative insignificant correlation with BSZ and LIQ. The result also shows that CAQ has a negative correlation with BSZ and is significant at 5% and CAQ has a positive correlation with LIQ and is significant at 1%. On the other hand, BSZ has a negative correlation with LIQ but is

insignificant. The strongest positive correlation was the relationship between CAQ and LIQ. On the other hand, the lowest correlation was the relationship between CAQ and BSZ.

4.2.3 Normality test

This study employed histogram for normality test.

Figure 4.1 Histogram



Source: SPSS output

Figure 4.1 shows that the normality assumption is achieved since all the bars of the histogram are moving towards the center of the normal curve.

4.3 Test of Hypotheses

This section presents and analyses the results obtained from the regression output. The summary of the multiple regression result is shown in Table 4.3.

Table 4.3 Summary of Multiple Regression Result

Variables	**Coefficient**	**t – values**	**Sig.**
Constant	2.987	2.618	0.013
CAQ	-1.147	-2.156	0.038
BSZ	-0.363	-2.287	0.028
LIQ	0.275	0.819	0.418
R^2	0.206		
Adjusted R^2	0.14		
F-statistics	3.118		
Prob. (F-stat.)	0.038		

Source: Researcher's computation (See Appendix)

From the result in Table 4.3, the multiple regression model is restated below reflecting the beta coefficients of all the independent variables.

ROE = 2.987 – 1.147CAQ – 0.363BSZ + 0.275LIQ ……. 3.3

From Table 4.3, Capital adequacy (CAQ) has a coefficient of -1.15 with probability of 0.038. This signifies that CAQ negatively affect ROE at 5%. This implies that when CAQ increases by 5%, ROE will decrease by ₦1.15 kobo. The result also shows that Bank Size (BSZ) has a coefficient of -0.363 with probability of 0.028. This signifies that BSZ negatively affect ROE at 5%. That is, when BSZ increases by 5%, ROE will decrease by 0.36 kobo. Similarly,

liquidity (LIQ) has a coefficient of 0.28 with probability of 0.418. This signifies that LIQ is insignificant. This implies that LIQ does not affect ROE.

In Table 4.3, the coefficient of determination, R^2 is 21% and that of the adjusted R^2 is 14%. This indicates that about 21% of the total variation in dependent variable (ROE) is explained by variation in the independent variables (CAQ, BSZ and LIQ). Given that the R^2 is not strong, the result might not be relevant to explain. The F-statistics which measures the adequacy and fitness of the model used in the study has a value of 3.118 which has been found to be significant at 5%. This implies that the model is well fitted.

4.4 Results and Discussions

The findings of the study indicate a significant negative effect of capital adequacy and bank size on the financial performance of the sampled listed primary mortgage banks in Nigeria while LIQ has an insignificant effect on financial performance of the sampled listed primary mortgage banks in Nigeria. The coefficient and t-values of CAQ are -1.147 and -2.287 respectively but the probability is significant at 5%. This implies that CAQ of the sampled listed PMBs negatively affect their financial performance. Although CAQ is significant at 5%, it decrease the ROE of the listed PMBs. The result provides the basis for rejecting the first hypothesis H_{01} which states that capital adequacy has no significant effect on the financial performance of listed primary mortgage banks in Nigeria. This is in line with the findings of Abdullahi (2013), Ayele (2012) and Osuka and Osadume (2013) but contradicts the findings of Buyung, Gholamreza and Alireza (2012), Swarnapali (2014) and Tesfaye (2014).

On the second hypothesis (H_{02}), bank size has a negative significant effect on financial performance of the sampled listed primary mortgage banks in Nigeria. The coefficient and t-values of BSZ are -0.363 and -2.287 and significant at 5%. This implies that BSZ of the sampled listed PMBs has a significant but negative effect on their financial performance. This

result provides some evidence to reject the second hypothesis H_{02} which states that bank size has no significant effect on the financial performance of listed primary mortgage banks in Nigeria. This supports the findings of Abdullah (2013), Omondi and Muturi (2013), Swarnapali (2014) and Tabari *et al.,* (2013) but contradicts Tesfaye (2014).

Finally, liquidity has an insignificant effect on financial performance of the sampled listed primary mortgage banks in Nigeria. The coefficient and t-values of LIQ are 0.275 and 0.819 and is insignificant. In other words, the LIQ of the sampled listed PMBs has no significant effect on their financial performance. Therefore, the study failed to reject the third hypothesis H_{03} which states that liquidity has no significant effect on the financial performance of listed primary mortgage banks in Nigeria. This supports the findings of Ongore and Kusa (2013), Swarnapali (2014) and Tesfaye (2014) but contradicts the findings of Lukorito *et al.,* (2014), Ojiambo (2014), Omondi and Muturi (2013) and Seelanatha (2011).

4.5 Robustness Test

For the purpose of reporting the robustness of the results, the study considers multicollinearity and auto correlation of the variables, Tolerance, Variance Inflation Factor (VIF) and Durbin-Watson values were used. The Durbin-Watson was employed to assess the auto correlation whereas Tolerance and VIF were meant to test for multicollinearity of the independent variables.

Table 4.4 Tolerance and VIF values

Variables	**CAQ**	**BSZ**	**LIQ**
Tolerance	0.289	0.845	0.317
VIF	3.465	1.183	3.155
Durbin-Watson	1.783		

Source: Researchers Computation (See Appendix)

Table 4.4 shows the value of tolerance which are 0.289, 0.845 and 0.317 for the independent variables used in the study (CAQ, BSZ and LIQ). The result indicates the absence of multicollinearity. The second test of multicollinearity is the use of VIF values. From Table 4.4, CAQ has 3.465, BSZ 1.183, and LIQ 3.155 for the independent variables used in the study. The result indicates the absence of multicollinearity. This is because the tolerance and VIF values are within acceptable region of not less than 0.1 and more than ten (10) for the tolerance and VIF values respectively. Finally, Durbin-Watson statistics of 1.783 indicates the absence of harmful auto correlation in the multiple regression model within the period of the study.

4.6 Policy Implication of the Results

The policy implication of these findings is that it has provided an insight into the predictor variables that have an important role in predicting and explaining the financial performance of listed PMBs in Nigeria. It has shown that liquidity has no effect on the financial performance (return on equity) of listed PMBs in Nigeria while capital adequacy and bank size decrease the financial performance (return on equity) of listed PMBs in Nigeria. Therefore, the capital adequacy ratio of the PMBs should be reduced since capital adequacy decreases their financial performance. In addition, management should maintain an adequate capital in view of the effect it has on the financial performance (ROE) of listed PMBs in Nigeria.

CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

This study examined the determinants of the financial performance of listed primary mortgage banks in Nigeria. Primary Mortgage Banks (PMBs) were established to facilitate housing delivery in Nigeria through the institution of a private-sector arrangement to supplant the public sector which had proved ineffective over the years in that respect. To further meet the objectives of the study, several literatures were reviewed ranging from the conceptualization of financial performance, measures of financial performance, concept of primary mortgage banks, housing finance in Nigeria and the determinants of financial performance. The Resource Based Theory provides the theoretical framework for this study.

In this study, the empirical analysis of examining the determinants of financial performance of listed Primary Mortgage Banks (PMBs) in Nigeria was conducted using a panel data set consisting of financial data of four PMBs over the period of 2004 to 2013. The study collected data from the Nigerian Stock Exchange (NSE) Fact book for the institutions that constitute the sample of the study. Causal research design and multiple regression were employed for the study. The result of the pooled OLS multiple regression analysis revealed that capital adequacy and bank size were negative and statistically significant in explaining the financial performance of listed PMBs in Nigeria. It also shows that liquidity is insignificant on the financial performance (ROE) of listed PMBs in Nigeria.

5.2 Conclusions

Based on the findings of the study, it is concluded that the effect of firm-specific determinants on the financial performance of listed PMBs in Nigeria is influenced by capital adequacy and bank size. This is because out of the three proxies of firm-specific determinants used in the study, capital adequacy and bank size have significant effect on the financial performance of listed PMBs in Nigeria. Liquidity is insignificant on the financial performance of listed PMBs in Nigeria.

5.3 Recommendations

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

i) To ensure maximum return of equity holding of listed primary mortgage banks in Nigeria, emphasis should be given to capital adequacy and bank size. This is because of the negative but significant effect that capital adequacy and bank size have on the financial performance (ROE) of listed PMBs in Nigeria.

ii) Management of listed PMBs should endeavor to maintain an adequate capital in view of the effect it has on the firm financial performance (ROE). This can be by not taking on too much debt and issue equity instead.

5.4 Suggestion for further Research

Based on the limitations of the study, this study suggests the need for further research in the following areas:

i) The study was only limited to three factors that determines the financial performance of listed PMBs in Nigeria. Thus, more research should be carried out to determine other factors that determines the financial performance of listed PMBs. Factors such as managerial competence and asset quality of the firm are suggested for future research.

ii) Research should be conducted out on macroeconomic factors such as inflation and GDP that affect the performance of PMBs in Nigeria. This would enable researchers and concerned investors to mitigate the effects of such determinants and hence enhance firm performance.

iii) An analysis should be carried out on the performance of PMBs in Nigeria to take account of their strengths, weaknesses, opportunities and threats.

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APPENDIX I

```
REGRESSION
  /DESCRIPTIVES MEAN STDDEV CORR SIG N
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA COLLIN TOL ZPP
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT ROE
  /METHOD=ENTER CAQ LIQ BSZ
  /RESIDUALS DURBIN HISTOGRAM(ZRESID) NORMPROB(ZRESID).
```

Regression

```
[DataSet1] C:\Users\USER\Desktop\Untitled1.sav
```

Descriptive Statistics

	Mean	Std. Deviation	N
ROE	.3140	.56201	40
CAQ	.2040	.29206	40

LIQ	.5782	.44160	40
BSZ	7.1535	.57178	40

Correlations

		ROE	CAQ	LIQ	BSZ
Pearson Correlation	ROE	1.000	-.298	-.217	-.204
	CAQ	-.298	1.000	.816	-.329
	LIQ	-.217	.816	1.000	-.143
	BSZ	-.204	-.329	-.143	1.000
Sig. (1-tailed)	ROE	.	.031	.089	.103
	CAQ	.031	.	.000	.019
	LIQ	.089	.000	.	.189
	BSZ	.103	.019	.189	.
N	ROE	40	40	40	40
	CAQ	40	40	40	40
	LIQ	40	40	40	40
	BSZ	40	40	40	40

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	BSZ, LIQ, CAQ[b]	.	Enter

a. Dependent Variable: ROE

b. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.454[a]	.206	.140	.52116	1.783

a. Predictors: (Constant), BSZ, LIQ, CAQ

b. Dependent Variable: ROE

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.541	3	.847	3.118	.038[b]
	Residual	9.778	36	.272		
	Total	12.319	39			

a. Dependent Variable: ROE

b. Predictors: (Constant), BSZ, LIQ, CAQ

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	2.987	1.141		2.618	.013					
	CAQ	-1.147	.532	-.596	-2.156	.038	-.298	-.338	-.320	.289	3.465
	LIQ	.275	.336	.216	.819	.418	-.217	.135	.122	.317	3.155
	BSZ	-.363	.159	-.369	-2.287	.028	-.204	-.356	-.340	.845	1.183

a. Dependent Variable: ROE

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	CAQ	LIQ	BSZ
1	1	3.300	1.000	.00	.01	.01	.00
	2	.619	2.310	.00	.16	.01	.00
	3	.079	6.455	.00	.70	.94	.00
	4	.003	35.513	1.00	.13	.04	1.00

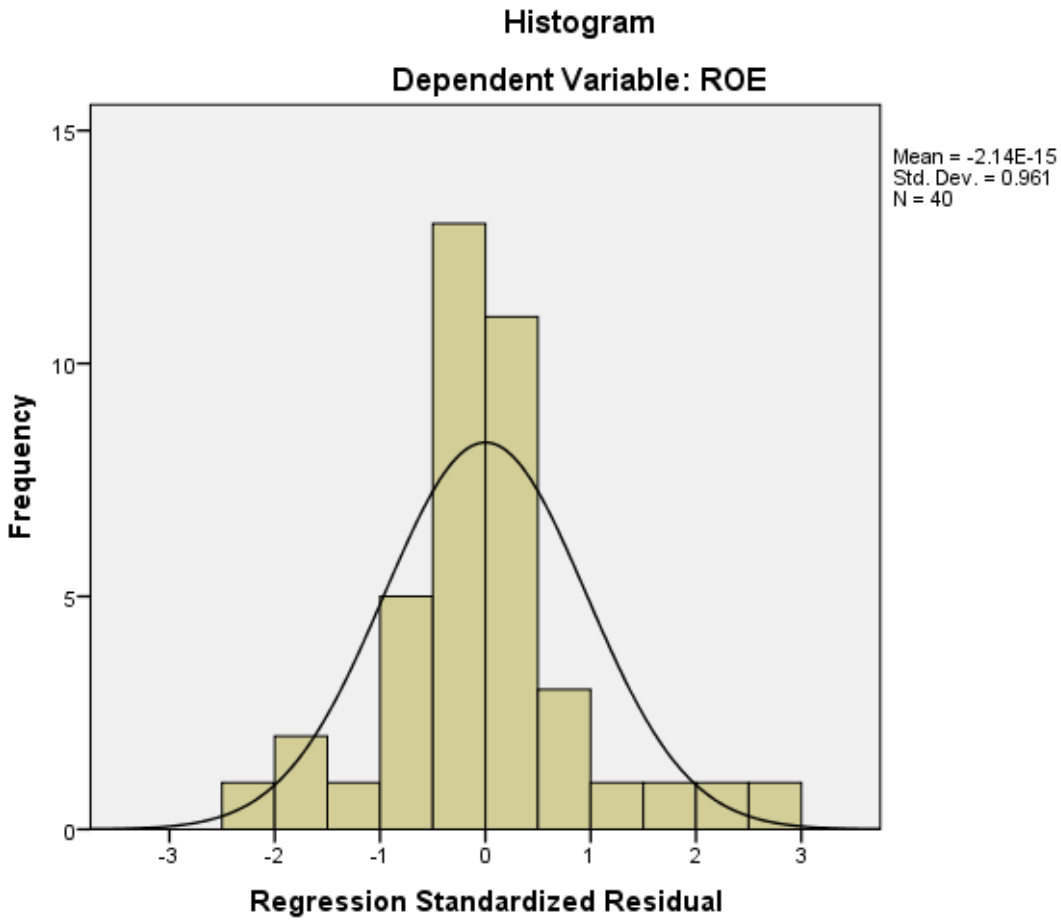
a. Dependent Variable: ROE

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.0112	1.0353	.3140	.25523	40
Residual	-1.23145	1.54454	.00000	.50072	40
Std. Predicted Value	-1.187	2.826	.000	1.000	40
Std. Residual	-2.363	2.964	.000	.961	40

a. Dependent Variable: ROE

Chart


Histogram
Dependent Variable: ROE
Mean = -2.14E-15
Std. Dev. = 0.961
N = 40
Frequency
15
10
5
0
-3
-2
-1
0
1
2
3
Regression Standardized Residual