THE IMPACT OF LIQUIDITY MANAGEMENT ON FINANCIALPERFORMANCE OF SELECTED DEPOSIT MONEY BANKS IN NIGERIA

BY

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A PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF NATIONAL DIPLOMA IN ACCOUNTANCY IN THE DEPARTMENT OF ACCOUNTANCY SCHOOL OF COMMERCE AND MANAGEMENT SCIENCES BAYELSA STATE POLYTECHNIC, ALEIBIRI

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DECLARATION

I declare that this project is based on a study conducted by me, Comfort Abali in the Department of Accountancy, Bayelsa State Polytechnic, Aleibiri under the supervision of Dr. Sunday Zibaghafa. This project report has not been submitted elsewhere for the award of a degree. The ideas and views of the research project are products of research undertaken by me. Where the ideas and views of other authors/researchers have been expressed, they have been duly acknowledged.

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CERTIFICATION

The project, the impact of liquidity management on financial performance of selected deposit money banks in Nigeria, meets the regulations governing the award of National Diploma in Accounting, Department of Accountancy, Bayelsa State Polytechnic, Aleibiri.

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DEDICATION

I dedicate this work to God Almighty, for His unfailing love and kindness upon my life.

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I want to appreciate all my lecturers at Bayelsa State Polytechnic, especially my project supervisor, Dr. Sunday Zibaghafa, for his patience, understanding, constructive and painstaking corrections in the course of this work. Special thanks to the Dean of our school, Dr James Poyeri, our amiable HOD, Dr Laime Isaac Odogu, Mr. Sulaiman Disu, Mr Anderson Obalakumo and Mr Timinipre Okpobo, for the knowledge they have imparted in me throughout my programme.

I also want to express my profound gratitude to my parents, my siblings, friends and well-wishers. God bless you all.

ABSTRACT

This study was carried out to examine the impact of liquidity management on financial performance of deposit money banks in Nigeria using six banks with international affiliation. In particular, the paper established the relationship between the variable of bank performance and those of liquidity management using capital adequacy, liquidity ratio, and current ratio as indicators. Data were extracted from annual reports from the banks' websites for a period spanning five years (2019 – 2023). Descriptive statistics and regression analysis were performed using the E-View 10.0 as instrument for the analysis. Findings indicate a strong positive relationship between capital adequacy and return on equity while liquidity and current ratio showed statistical insignificant negative relationship with return on equity. Bank size showed a strong positive relationship with return on equity. It was recommended that the regulatory body should ensure that deposit money banks in Nigeria are adequately capitalized to guarantee system stability while the bank managers should adhere to reserve requirements from the Central Bank so as to absorb financial shocks and operate profitably.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Financial intermediation is considered a major function of deposit money banks in Nigeria. By the execution of this function, funds are collected from the surplus units of the society which can be withdrawn on demand or channeled to the investment units who are in need of such fund. Thus, there is a gap of filling the demands of the depositors of the fund and lending to the deficit economic units and these must be matched in a manner that no financial shocks will be created in the system. In the opinion of scholars, such as Otekunrin,Nwanji, Agba, Olowooker, Fakile, Lawal, Ajayi and Falaye (2018), a bank's capability of meeting customers' withdrawal needs and other cash flows is an indication of her liquidity management. Drawing from this statement and in accordance to Bhattacharyya and Sahoo (2011), liquidity management encompasses maintenance of enough cash balance and its equivalentbalances to satisfy the needs of the customers at any point in time as well as ensuring that money is also available to execute the daily operations of the bank. In the process of performing these functions, the banks should be able to make profit for her major and other stakeholders who are very essential for its continued existence and operations. However, achieving profitability demands striking a balance between liquidity and how it is managed. Liquidity is analogous to the circulation of blood in the human system; lack of blood weakens the system but the system would be sound where the blood is at the optimum level. Consequent to this, Akinwumi, Essien and Adebgoyega (2017) alluded liquidity and profitability to two centrifugal forces operating at the opposite continuum which put the bank at a risky position. A trade-off should be maintained between inadequate liquidity

and excess liquidity as each of these has profound effect on the banks performance in terms of profitability (Padache, 2006).

The import of liquidity management to financial performance of modern banking organizations is well established in literature. Liquidity management implies a company's ability to allocate its funds efficiently in an effort to cover operating expenses, make investments, repay shareholders, and maintain adequate reserves. By generating enough liquid assets, a business can meet its everyday business needs and avoid taking on debt. In doing so, the business has more control over its activities (Akenne, 2019). Without generating adequate liquid assets to meet its needs, the banking industry may likely find it difficult to conduct its routine activities such as good maintenance culture of the banking facilities, purchase of required machinery and tools (non-current assets) for banking activities, inability to grant loans to its customers, poor budgetary control, inability to maintain effective accounting system, may face liquidation, merge or even wind-up or liquidated, inability to invest, inability to pay its employees, as well as not meeting the required standards of operation as specified by the Central Bank of Nigeria (Akinyomi, 2014).

Although liquidity management is not a new issue among operators of banking firm, it is particularly important for every organization as it pertains to the daily running of the organization, development, maintenance and growth. Liquid assets are one of the most important assets in the Deposit Money Banks (DMBs) in Nigeria and should be managed efficiently to support growth and financial performance in Banks. A successful liquidity management plays a vital role in achieving this growth, strength and financial performance(Idowu, Essien, & Adegboyega, 2017). As such, the adoption of sound liquidity management techniques to

ascertain the extent of the liquidity of Deposit Money Banks (DMBs) is also important to measure the financial performance.

The importance of liquidity management cannot be overemphasized and this is the reason behind the Central Bank's various reforms which are intended to ensure system stability and the restoration of confidence in the Nigerian financial system. Much as profit is very essential for the going concern of banks, liquidity management remains a sine qua non for the attainment of profitability. This study is therefore empirically conducted to examine the relationship between liquidity management and performance of deposit money banks and to determine the nature of relationship in existence.

1.2 Statement of the Problem

Banks are established like any other businessesfor profit making for the major and other stakeholders.The achievement of the profit depends on the financialhealth status of the banks which is primarilydetermined by the ability of the banks to hold sufficientliquid assets in the right proportion so that allregulatory requirements would be complied by while atthe same time continuing the normal operations ofpaying their depositors on demand and makinginvestment that will also shore up her profit objective.Much as lack of liquidity portends risks to the banks,excess liquidity is also at a peril to the banks. Risks areassociated with losses or inability to generate profitwith the negative attendant effect on the going concernstatus of the firms. It is therefore pertinent that depositmoney banks should manage their liquidity in such a manner that a trade-off would be struck betweenliquidity and investment such that sudden shocks that may bring the corporate life of the organizations to an end would be avoided. Liquidity management has been identified in this paper to be associated with the maintenance of capital adequacy ratio, liquidity ratio, cash ratio while log of total assets was introduced as a control variable.

Several studies have been carried out by scholars with mixed results; some hold that liquidity management and performance are positively related while others found negative association betweenliquidity management and performance. A good number of the works conducted in this area lacks currency. This study was therefore carried out to provide further verification on the relationship between liquidity management and performance of depositmoney banks in Nigeria.

1.3 Objectives of the Study

The major objective of this study is to investigate the relationship between liquidity management and performance of deposit money banks in Nigeria between 2019 and 2023. Specifically, this study was intended to:

i. Examine the relationship between liquidity ratio and return on equity of deposit money banks in Nigeria.

ii. Establish the correlation betweencapital adequacy ratio and return on equity of deposit money banks in Nigeria.

iii. Ascertain the relationship between current ratio and return on equity of deposit money banks in Nigeria.

1.4 Research Questions

i. What is the relationship between liquidity ratio and return on equity of deposit money banks in Nigeria?

ii. What is the correlation between capital adequacy ratio and return on equity of deposit money banks in Nigeria?

iii. What is the relationship between current ratio and return on equity of deposit money banks in Nigeria?

1.5 Statement of Hypotheses

The hypotheses relating to this study are formulated as follows:

H_O1: There is no significant relationship between liquidity ratio and return on equity of deposit money banks in Nigeria.

H_a1: There is significant relationship between liquidity ratio and return on equity of deposit money banks in Nigeria.

H_O2: Capital adequacy ratio has no significant correlation with return on equity of deposit money banks in Nigeria.

H_a2: Capital adequacy ratio has significant correlation with return on equity of deposit money banks in Nigeria.

H_O3: Current ratio has no significant relationship with return on equity of deposit money banks in Nigeria.

H_a3: Current ratio has significant relationship with return on equity of deposit money banks in Nigeria.

1.6 Significance of the Study

Governments and its agencies will find the work very interesting as it will help strategize effective ways of regulating environmental, labour and social impacts of industry. Governments appear to be particularly interested in disclosure system that may also be more cost effective, flexible and decentralized, and that build on market mechanism and public participation.

The study will benefit the consumers since they are among the public that have growing concern about the environmental and social impacts of the products they buy, the places they work and the communities they live in, which lead to new demands for corporate disclosure.

Investors have increasingly urged banks to demonstrate their social and environmental performance to investors – both traditional mainstream investors and growing numbers of socially responsible investors will highly benefit from this study.

Corporate organization will find the study useful in the process of developing reporting systems, measuring performance and tracking changes over time can support the development of information systems that improve internal management of risks, stakeholders etc.

The study will also add to the empirical evidence on liquidity management and financial performance in Nigeria.

1.7 Scope of the Study

Content scope: The content scope of this study is liquidity management (proxy by liquidity ratio, capital adequacy ratio and current ratio) and financial performance of deposit money banks in Nigeria (measured by return on equity).

Geographical scope: The geographical scope of this study is all the deposit money banks quoted in the Nigerian Exchange Group.

Unit of Analysis: The unit of analysis of this study is the annual report and financial statements of the deposit money banks under study, from 2019 to 2023.

1.8 Operational Definition of Terms

Liquidity: This refers to the ease with which an assets or security can be converted into ready cash without affecting its market price.

Liquidity Management: Liquidity management encompasses maintenance of enough cash balance and its equivalent balances to satisfy the needs of the customers at any point in time as well as ensuring that money is also available to execute the daily operations of the bank.

Financial performance: This refers to a complete evaluation of a company's overall standing in categories such as assets, liabilities, equity, expenses, revenue and overall profitability.

Profitability: This can be defined as a measurement of efficiency of a business, hence it is the ability of a business to produce a return on an investment based on its resources in comparison with an alternative investment.

Capital adequacy ratio: This is the ratio of a bank's capital in relation to its risk weighted assets and current liabilities. It is calculated as: Tier 1 capital + Tier 2 capital divided by Risk less weighted assets.

Liquidity ratio: This is used to determine a debtor's ability to pay off current debt obligations without raising external capital.

Current ratio: This is a ratio that measures a company's ability to pay short-term obligations or those due within one year.

Return on Equity: This is a measure of financial performance calculated by dividing net income by shareholders' equity.

CHAPTER TWO

LITERATURE REVIEW

2.1 Conceptual Framework

2.2.1 Concept of Liquidity

It is pertinent to state that there is nouniversally acceptable concept of liquidity because of the eclectic nature of the concept which results from various economic viewpoints (Ibe, 2012). However, the meaning of liquidity revolves around marketability of security and funding ability of banks (Basel Committee on Banking Supervision, 2008). This understanding was shared by Marozva (2015) and Shafique, Faheem and Abdullah (2012) who defined marketability of security from the purview of the ease of trading such instrument while funding ability is the easiness of converting security to cash. This view was corroborated by Olagunju, Adeyanju and Olabode (2011), conceiving liquidity as the ability of a concern to meet its short term obligations or the conversion of its assets into cash. Scholars such as Amengor (2010) and Alshatti (2015) strongly advocate that liquidity is the ability of banks to meet the financial needs of their increased assets and meeting liabilities as and when they fall due without the incidence of unexpected losses.

Liquidity refers to a person's or organization's ability to satisfy immediate and long-term requirements using cash or assets that can be easily transformed into cash. Investors may also define liquidity as the capacity to turn an investment portfolio into cash rapidly and with little or no loss of value. All of these concepts are critical to a company's success since a firm's understanding of liquidity and how to manage it ensures the company's survival, even as a stakeholder. Financial liquidity is a complex but critical concept that defines the soundness and stability of the financial system. Because capital is essential at the start of any business, this

emphasizes the relevance of liquidity not only to the financial system but to all industries. Liquidity was defined in terms of ‘flows,' that is, unrestricted flows among financial system and market players, as well as the ability to realize these flows (Eze & Agu, 2020).

Most business failures in the past have been attributed to business owners' incapacity to properly manage their firms' liquidity, ensuring profitability. Ehiedu (2014) argued that liquidity should not be excessive or insufficient. Excess liquidity refers to accumulated idle cash that does not generate profit for the firm or organization, whereas insufficient liquidity would affect the firm's manufacturing process, earning ability, and creditworthiness.

Liquidity is the ability of companies to meet their mature financial obligations.It also describes how to quickly and profitably convert one asset to another asset.Acharya and Naqvi (2012) believe that liquidity is the speed and certainty of converting an asset to cash at the discretion of the asset owner.Anyanwu (1993) confirms this view and offers that liquid assets could be monetized at minimal cost and loss.Jinghan (2010) argues that a bank's asset portfolio requires a high level of liquidity. Banks must therefore have sufficient assets in the form of cash and short-term assets to increase customer confidence and business results (profitability).According to Spindt and Tarhan (1980), banking operations are driven by depositors 'debt, so liquid assets are an essential part of banks' overall asset basket. Indeed, it is clear that liquidity is defined by negotiability, stability and sustenance. Marketability establishes the ability to change. One can trade assets with the ability to trade assets and buy them back before maturity easily and quickly.Stability means preservation of value. As a result, liquid assets are fixed and price fluctuations are relatively small (compared to physical assets) (Eze & Agu, 2020).

According to Ndum (2021), liquidity is the speed and ease an asset can be sold and still realize fair price, although liquidity is centered on short term obligations it should not be neglected

because the optimal capital structure of an entity is attained by factoring in both short term as well as long-term requirements of finance. This refers to the measure of the ability and ease of an entity to covert asset to cash, it describes the extent to which a marketable commodity or security may be purchased or sold without affecting its price. Liquid assets are assets which are simply transformed to cash when needed to meet financial obligation. In the case of banks, liquid assets may include: cash, bank reserve, government debts etc. Bank liquidity in general refers to the ability of banks to have the resources to meet its maturing obligations. It talks about the how banks see to cash, cheque and other withdrawal obligations and floating new loans on demand add still abide with the current reserve requirements (Ndum, 2021).

Liquidity defines the ability, and the ease with which other current assets other cash andcash equivalent could be converted to cash. Liquid assets are mostly current assets, which can quickly be converted to cash when the need comes in order to meet financial and debt obligations (Okaro and Nwakoby, 2016). Graham (2013) defines liquidity as a bank's capacity to fund increase in assets and meet both expected and unexpected cashand collateral obligations at a reasonable cost and without incurring unacceptable losses. From capital perspective, researchers view liquidity as a financial term that describes the amount of capital that is available for investment.

Liquid assets generally include cash, central bank reserves and government debt. Liquidity is essential because to remain viable firms should possess sufficient liquid assets to meet its short term obligations. Banks that could not meet withdrawal demands by depositors will definitely run into distress, which ultimately will lead to liquidation. In the banking firm, liquidity needs to be maintained in order to continually meet banks obligation. According to Okaroand Nwakoby (2016),adequate liquidity enables a bank to meet time, funding and lending risks. Liquiditymanagement mechanism is the mandatory requirement imposed on DMBs by the

Central Bank to ensure that DMBsdo not become easily insolvent. Thus monitoring DMBs' liquidity reduces the possibility of raising loans underunfavourable loan agreements, restrictions and at a high interest bearing costs. Liquidity management in DMBs alsoreduces the incidence of bankruptcy and liquidation which are simply the result of illiquidity, and thereby, help to protect customers' deposits.

According to business dictionary, liquidity is a measure of the extent to which a person or organization has cash to meet immediate and short-term obligations or assets that can be quickly converted to do this. Liquidity can also be a measure of the ability and ease with which assets can be converted to cash. Liquid assets are those that can be converted to cash quickly if needed to meet financial obligations; examples of liquid assets generally include cash, central bank reserves and government debt. To remain viable, a financial institution must have enough liquid assets to meet its short term obligations, such as withdrawals by depositors (Okaro & Nwakoby, 2016).

According to Graham (2013), liquidity can further be termed as a bank's capacity to fund increase in assets and meet both expected and unexpected cash and collateral obligations at a reasonable cost and without incurring unacceptable losses. Also, liquidity is a financial term that means the amount of capital that is available for investment. Today, most of this capital is credit, not cash. Bank Liquidity simply means the ability of the bank to maintain sufficient funds to pay for its maturing obligations. It is the bank's ability to immediately meet cash, cheques, other withdrawals obligations and legitimate new loan demand while abiding by existing reserve requirements. According to Nwaezeaku (2006), liquidity in banking measures the availability of cash and the rate at which current assets are converted into cash to meet ordinary and extra – ordinary request. Several scholars have viewed liquidity as a measure of bank's bargaining power

and strength. One of the views is that, the more effective a deposit money bank is in managing its liquidity, the stronger its ability to provide loanable funds. Adequate liquidity enables a bank to meet three risks namely: Time risk (which is the ability to compensate for non-repayment of funds. That is, if the borrower defaults their commitment at a specific time), funding risk (which signifies the ability to replace net out flows of funds, either via usual withdrawals of retail deposits or nonrenewal of wholesale funds), lending risk (which denotes ability to meet occasional withdrawals of funds from cogent customers). Monitoring deposit money banks' liquidity reduces the possibility of raising loans under unfavourable loan agreements, restrictions and at a high interest bearing costs. Liquidity management in deposit money banks also reduces the incidence of bankruptcy and liquidation which are simply the result of illiquidity, and thereby, help to protect customers' deposits. To simply conclude, liquidity helps to enhance and maintain public confidence of depositors and the financial markets. If the financial market perceives a bank to have liquidity problems, the bank may not be permitted to raise further funds and if allowed, it will be at an increased rate (premium). Also, liquidity monitoring also serves as a tool through which over-liquidity and under-liquidity, which can pose negative impact on profitability can be avoided (Ayo, 2014).

Generally, liquidity is the speed with which an asset can be converted to cash. An asset is considered liquid if they have the ability to be quickly sold without significant loss of value. Bank liquidity can be defined as the ability of a bank to convert financial asset to cash at minimum cost in order to meet immediate, maturing and short-term obligations. Nzotta (2004) further explained that liquid assets are assets, which are highly liquid and specified as such by monetary authorities. They usually have the following characteristics:

i. Ease of conversation to cash

ii. Low transactions cost

iii. Low risk

iv. The returns are low

In this context, for banks to pay for maturing obligations there is need for banks to maintain sufficient fund to meet its emergency needs.

2.1.2 Concept of Liquidity Management

Liquidity management is essential for the outstanding performances of all business entities, particularly to financial institutions due to the fact that customer confidence of the banks is to a large extent dependent on the accessibility of funds in good time. Inadequacy of liquidity can destruct the proper operations of banks even as they might be unsuccessful to meet the financial demands of the customers in time. This would result to tight relationship with their customers, and so it is of vital importance to formulate policies for the efficiency of liquidity management. This is possibly in the form of suitable courses of actions for the evaluation, control and management of liquidity (Andrew & Osuji, 2013).

Bhattacharyya and Sahoo (2011) opined that liquidity management includes the conservation of adequate cash balance and its corresponding balances to give satisfaction to the needs of the customers at any moment and in addition, making sure that money is also at hand to carry out the day-to-day functions of the bank. In the course of discharging these functions, the banks ought to be able to make profit for all stakeholders who are necessary for its continuous existence and running. Nevertheless, attaining profitability requires the stabilization of liquidity and how it is being managed. Financial management decisions include liquidity management decisions and efficient liquidity management ensures a tradeoff between liquidity and profitability (Bhunia & Khan, 2011).

Liquiditymanagement is of great significance to the externaland internal business environment because it also affects the day-to-day operations of banks (Bhunia & Khan, 2011). Olatunde (2015) concluded that improvement and maintenance of proper liquidity coverage ratio by the financial regulators and the banks' management in Nigeria can give rise to growth in business performance. The regulators are to ensure compliance, while the management complies by maintaining the minimum required liquidity and uses the available resources to profit the bank. Liquidity in banks measures the rate at which current assets and other available resources are transformed into cash to satisfy liquidity demand preferences as well as reserve requirement (Nwaezeaku, 2006). It depicts the bank bargaining prowess and strength to maintain depositors for more savings. Deposit money banks'liquidity situation is by and large tracked and calculated based on liquidity quotient (Rychtarik, 2009).

The complexity of the concept of liquidity management seems difficult to understand and a major concern to the management of banks and regulatory authorities. Thus, efficient liquidity management strategically position of banks for effective operation and growth of the financial sector of the economy. It is an acceptable fact that the level of liquidity determines the tempo and pattern of growth in an economy (Okaro & Nwakoby, 2016). The basis for determining and evaluating good performance of depositing institutions is based on efficient liquidity management. Therefore, liquidity management is defined as the process of planning, managing and control of cash and other liquid assets to meet bank's obligations to depositors. Idowu, Essien and Adegboyega (2017) contended that managing liquidity is a fundamental component in the safe and sound management of financial institutions. In fact, banks must maintain a certain proportion of its funds in liquid form to enable it meet depositors' requirements. Therefore, it should be noted that bank liquidity position is the ability of bank to pay for its maturing

obligations. This is where banks face serious problem because the more liquid an asset is, the less the rate of return on investment. There is no standard norm or measures on the optimal level of liquidity to be maintain by banks. It is worthy to note that most liquid asset generate no or less income to the bank and are composed of cash, call money, Treasury bill and Treasury certificate etc. However, since most of the liabilities of banks are payable on demand and to ensure adequate liquidity at all time, banks must invest their funds and grant loans on short term basis or what is called self-liquidity loans (Nzotta 2018).

Liquidity Management is the summation of all the activities, policies as well as measures put in place to ensure the entity is liquid enough to meet its short-term obligations and reduce its exposure to liquidity risks. These management measures could be CBN reserve requirement to DMBs, cash balances due to other deposit money banks (Duruechi et al., 2016). It provides the tools to minimize the tied down working capital, optimally manage liquidity risks and intra-group positions and enhance the value of liquidity pools on local or foreign currencies and at the same time, sustaining a real time visibility as well as control over cash flows of the entity. Liquidity management in banks involve the efficient as well as effective planning and organization of the bank's total assets which will improve its liquidity and profitability at the lowest cost. Davronov (2016) stated that liquidity management are the mechanisms employed to maintain the efficiency and stability of DMBs and the banking system as well.

2.1.3 Measuring liquidity in deposit money banks in Nigeria

Various ratios measure liquidity in deposit money banks.The loan-deposit ratio as a measure of liquidity compares the added value of loans with the total deposit. A high ratio is an indication that there is a contraction in liquidity since a high proportion of commercial bank deposits have been granted in the form of loans. On the other hand, a low ratio indicates the opposite

(Nwankwo, 1991). The liquidity ratio is another measure of liquidity calculated as a proportion of banks' current liabilities such as deposits, short-term interbank loans, the net balance with foreign branches, and the available balance with the central bank. The last measure of liquidity to consider here is the cash ratio. Ibe (2013) deduces that the cash ratio is particularly effective in sterilizing excess liquidity in the banking system because the regulatory authorities can monitor it effectively. Based on the cash ratio, liquid assets are directly related to deposits rather than loans and advances, which are the most liquid illiquid assets of banks. Emefiele (2015) states that the main liquidity measures in Nigeria are the cash reserve ratio (CRR), the liquidity ratio (LR) and the ratio of loans to deposits enshrined in the CBN Statistical Bulletin in the dataset of the financial sector.

The current ratio is one of the variables used as a proxy for liquidity management in this study. Typically, a high current ratio is considered to be a pointer to the firm's potential to rapidly discharge short-term debts (Berk, 2009). Increasingthe current ratio over some time suggests enhancedbusiness liquidity of the company, whilea decrease in the current ratio is a consequence of the deteriorating liquidity position of the business or a reduced working capital cycle of the company.

The capital adequacy ratio, which is another proxy liquiditymanagement for banks in this study, shows howeffective and sound the system is and liquidity management is also used by banks to examine theavailability of capital in banks. Devinaga and Tan (2010), as well as Vong (2005), opined that capital adequacyratio serves as a determinant of banks' profitability and consequently, their performance. Capital, deposits and borrowings are the source of funding available to banks to be able to run their business operations properly to continue to be profitable. Berger (1995) asserts that the low level of capital puts the banks at risk of not being

able to meet the needs of their clients as well as consequently having adverse effects on the profitability of banks.It is an assurance of the banks' long-term liquidity management. Hence, it is the primary liquidity management variable in this study. This is because effective and efficient liquidity management starts with the effective and efficient capital ratio (Okaro, 2016). Creditors look into the cash ratio of the company to assess if the company has sufficient cash to pay up its debts as and when due and to fulfil other obligations. Cash ratio is a preferred ratio to banks and other clients, because account receivables orinventory are not used in calculating the ratio.

Different scholars use different financial ratiosto measure liquidity such as Ilhomovich (2009), who employed cash to deposit ratio but this work used loans and advances to total assets.

Drawing from the above, it can be gleaned that the scopes of liquidity is based on the timing required in converting assets of banks into monetary asset or cash. Koranteng (2016) attributes a bank's liquidity to its ability to acquire cash through deposits and finally, its ability to reinvest as and when needed. In the opinion of Bhunia and Khan (2011), profitability of deposit money banks is tied to efficient management of liquidity and Olatunde (2015), observed that the improvement and maintenance of liquidity coverage ratio by the regulators is in tandem with increase in business growth and performance. The significance of liquidity demands that the regulators should ensure

compliance while management of the banks shouldobserve to comply with the maintenance of minimum liquidity requirement and invest available resources in profitable window. Among the ratios used as proxy for liquidity management in this study is capital ratio which indicates the effectiveness and soundness of the system. Moreover, researchers like Devinaga and Tan (2010), as well as Vong (2005) have observed that capital ratio is instrumental to profitability and

performance of deposit money banks. Liquidity ratio (another measure of liquidity management used in this study) applies to a number of different liquidity indicators, including net working capital, cash ratio, quick ratio, and current ratio, to name a few. A low ratio suggests that the corporation or firm is experiencing financial difficulties or is managing its liquidity poorly. A high ratio also suggests that the company is in good financial shape, but it should not be too high because extra funds have a high opportunity cost. Because of their interest in the firm's day-to-day activities, both external and internal analysts value liquidity management. According to Raheman and Nasr (2007), the dilemma in liquidity management is deciding how to achieve the required trade-off between liquidity and profitability.

2.1.4 Corporate Performance

The concept of performance is a contentious issue in financeand accounting mainly because of its multidimensionalmeanings (Ishaya, et al., 2014). The profitability of a companymeasures its improvements over its functioning years. Fromthe extant literature, researchers have applied severalsurrogates as metric measures of financial performance ofbanks. Such metrics according to Buba (2010) include acombination of financial ratios analysis, benchmarking andmeasuring of performance against budget. Others includereturn on assets, returns on equity, net interest margin, and a host of others. However, this study employed Return onequity (ROE) as a metric of financial performance.

The fundamental objective of every business organization is profit maximization. Profits are maximized at the point where total revenues exceed total cost. Profitability can be defined as the relationship between financial input (cost) and output (sale) over a fixed period of time. In this context a bank is said to be profitable if it generates revenue in excess of cost by minimizing financial input at a given level of output. Hence efficient management of profitability leads to

higher returns on capital invested into the operation activity of the bank. In essence, the existence of a bank depends on the ability to engage in efficient credit risk selection and thus; make profit from such process. Vaish (1977 cited by Okpara 2012) believes that the bulk of commercial bank profit-more than 75 percent of the profit, is however earned from interest on loan and investment which the bank makes using the money belonging to their depositors. However, when the interest charges by banks are higher than the cost of funds as well as the overall cost of doing business, it will result to profit. The interest on loan is largely influenced by the degree of risk in the exposure, the length of time of the exposure (tenor) and the size of the loan, in addition to monetary policy rate prevailing (Nzotta 2018). In this vein, sustainable profit could be achieved by effective credit analysis and management.

Concept of Financial Performance of Deposit Money Banks in Nigeria

Financial performance is the financial condition of a company over a certain period of time. It is measured using different business-related formulas that enable users to calculate specific details in relation to a company's potential effectiveness. Financial performance gauges the ability of the management in utilizing the resources of the organization. Financial performance is examined differently by the users. For internal users, it is examined to assess their respective companies' welfare and position among other standards. For external users, financial performance is evaluated to indicate likely investment opportunities and to discover if a company is profitable.

Deposit money banks in Nigeria form the bedrock rock of economic development in the country. As a component of then Nigeria financial system, banks play a prominent role in channeling savings from surplus economic units into activities that create wealth for the growth of the economy. They accept deposits from customers, which are short term in nature and channel these

to deficit units. The deposits are mostly repayable on demand. Therefore, there is need to ensure adequate liquidity of banks, while optimizing their profit performance. One of the main objectives of bank management is to efficiently manage and monitor liquidity and profitability. In view of this role liquidity level directly affect the level of risk. Risk is the difference between planned and actual outcome of investment decisions. Inability to meet short term obligations (the withdrawal needs of depositors) will increase the risk exposure of banks. Accordingly, an institution short of liquidity may have to undertake transaction at a heavy cost resulting in a loss of earnings or in the worst scenario could result in bankruptcy of the financial institution. Certainly, some of the bank failures are associated with liquidity management risk and inadequate risk management techniques as it continues to hurt both performance and profitability in the banking sector. Therefore, it is very paramount for every bank to effect a balance between the maximization of profitability; arising from its lending operations and ensuring optimum liquidity to a level of safety. The conflicting issues between liquidity and profitability are crucial to shareholder, depositors, monetary authorities as well as depository institutions. The shareholders jointly own the bank and are generally concerned with profitability to help in evaluating the return on investment. The depositors are the main suppliers of funds used by the bank, and are more interested in the liquidity level in order to assess the ability of the bank to meet their withdrawal needs. In the same vein, the monetary authorities are interested in the level of liquidity in the banking system, so as to avoid distress and illiquidity in the banking system and the economy. Also, depository institution management are more concerned with both liquidity and profitability because of the obligations to shareholders, depositors and regulatory authority.

Thus to ensure for continuous survival of deposit money banks in Nigeria, banks should maintain adequate liquidity and earn adequate profit from their activities to make the banking system more efficient and stable, avoid distressed institutions, enhance risk management practice and the forced sale of bank assets.

2.1.4.1 Profitability

The profitability of banking sector is important with the aim to estimate the constancy and reliability of thefinancial and banking sector (Albertazzi & Gambacorta, 2009). Another author described profitability as thevariation between expenses and revenues through a fixed period of time, generally fixed period is consisting ofone financial year (Heibati, Seid, & Dadkhah, 2009). This is essential of banks for to generate sufficientamount of income endure that will lead on the way additional growth and expansion.Agbada and Osuji (2013) assert foremost a challenging part on the administration of the bank becausenumerous factors are involved in the decision. The profit planning and management is more complex in thehighly challenging economic environment.

The profitability is represented by three alternative variables. First, most important profitability ratio is thereturn on asset (ROA), ROA shows the ability of bank asset to produce the profit. Another ratio is the return onequity (ROE), this ratio mentions the returns to shareholders on their equity. The next one is the return onInvestment (ROI), it measures the bank's efficiency by using invested capital. Scholar stated that Earnings pershare (EPS) serve as a pointer of a bank's profitability. Another scholar stated that Net profit margin (NPM) andTobin Q as bank's profitability factor.

Return on Equity (ROE)

Return on equity is used to measure corporate financialperformance in this study. It details how well a company hasused the capital from its shareholders to generate profits.Investors use ROE as a measure of how well a company isusing its money. Many researched have used it in their study(Onuorah, et.al 2016, Fenty & Rusdiah 2015, Javed, et al.2014, Olaniyi, et al. 2015, Aymen 2013, Akeem, et al. 2014).In this study, it is calculated as profit after tax divided byshareholder's equity. Onuorah, et.al (2016) is of the view thatreturn on equity (ROE) has not been a major player in thedeterminant of capital structure performance of firms inNigeria. The interest of shareholders in any corporate body is howtheir capital employed will yield profit to which will in turndetermine the amount to be paid as dividend. Although, thedecision of dividend is at the discretion of management toexercise, most times there maybe profit but the managementmay decide to plough it back to the business as a source ofinternal equity called retained earnings to boost the futureoperation of the firm. Hasan et al. (2014) observed that thereis no statistically significant relation exists between capitalstructure and firm's performance as measured by ROE. Ayad,et al. (2015) opined that this type performance ratio measures the financial performance and the managerial efficiency offirm and the higher the ratio, the more efficient is theperformance of profitability of a firm.

2.2 Theoretical Framework

2.2.1 Liquidity-Profitability trade-off theory

The emphasis of this theory is the synchronization of liquidity and maturity which ensures that a mismatch capable of causing financial shock and runs in the bank does not occur. The theory maintains that a bank can be vulnerable if a skewed relationship occurs between the two. Regulatory authorities aremindful of the importance of safety and soundness in the system

thereby setting required maintainable ratios that position banks to easily discharge their liabilities without compromising investible funds that would yield returns. Researchers agree that liquidity is as important as capital to the banks for the maintenance of stability. Bagyenda, Brownbridge and Kasekende (2011) concluded from their study that banks with high liquidity and superior capital are not likely to experience failure at a time of financial crisis. This theory is adopted from the work of Akinwumi et al (2017) primarily for taking into consideration, the financial performance of banks and liquidity cash ratio variable which measures the short term liquidity positions of banks as modeled in this paper.

2.2.2 Self-Liquidating Paper Theory

This theory, referred to as the Commercial Loan theory discourages banks from extending long term lending. In other words, these are the most liquid loan the banks can give and is widely accepted as a means of sustaining liquidity of banks. Drawing from the view of Leonard (2011), the theory anchors on the short term loan or lending which the bank extends to finance saleable goods from the producer to the consumer. The loans are self-liquidating in the sense that products are produced and evolved through transportation, manufacturing, storage and distribution channels (Ibe, 2013). Self-liquidating loan ensures that short-term profit motive should be matched with short-term obligations by making depositors' funds available when needed. Onoh (2002) points out that for liquidity management to be effective in this direction, the tenor of funds from depositors and other sources must be matched with that of assets (loans and advances). Self-liquidating loan is a source of current working capital to firms and originates from trade transactions secured by physical goods, repayable out of the price obtained by their sales (Shekhar & Shekhar, 2005; Gomez, 2008). However, the side effect attributed to this theory by Gomez (2008), is that it reduces the purchasingpower of borrowers which is evident during

depression period when traders or borrowers experience trade hiccups, resulting to losses and delay in meeting up with bills on maturity.

2.2.3 Commercial Loan Theory

This theory states that the liquidity of the commercial bank achieved automatically through self-liquidation of the loan, which being granted for short periods and to finance the working capital, where borrowers refund the borrowed funds after completion of their trade cycles successfully. According to this theory, the banks do not lend money for the purposes of purchasing real estate or consumer goods or for investing in stocks and bonds, due to the length of the expected payback period of these investments, where this theory is proper for traders who need to finance their specific trading transactions and for short periods (Emmanuel, 2011).

2.3 Empirical Framework

Bassey and Moses (2017) carried out a study on the relationship between bank performance and liquidity management using a target population of fifteen banks. The secondary data for the study were obtained from published reports and the ordinary least square method was employed in analyzing the data. Findings revealed an adverse correlation between liquid money ratio and equity returns whereas an ideal positive correlation existed among loans, asset ratio, loans and equity returns. They recommended that banks should not only centre on the focal point of profit maximization but maintain a balance of customer satisfaction through the application of liquidity management approaches.

Another country specific study was conductedby Daniel (2017), who surveyed management ofliquidity and its impact on the efficiency of banks. This was based on a study period of 25 years (1986–2011) with a target population of 24 banks. Data for the research was obtained from secondary sources and analyzed using the SPSS package. The results of this study indicated that

liquidity management positively influences the operations of deposit money banks. The researcher also explained the data using correlation analysis and found that equity returns and cash liquidity reserve ratio is positively related, while equity returns and deposit loan ratio are negatively related. He further recommends that banks should adopt optimum liquidity strategies for the smooth running of the business.

Ogonna and Ikechukwu (2018) assessed the effects of liquidity management on the performance of deposit money banks in Nigeria covering sixteen years (2000 – 2015). Data for the study were gathered from the CBN and NDIC annual publications for the stated period. Using the regression statistical analysis with the aid of E-View 8.0, the result revealed a negative and significant relationship between liquidity andprofitability of deposit money banks in Nigeria. Also, a positive and significant relationship was identified between cash to deposit ratio and profitability.

Adebayo (2019) examined liquidity management and commercial banks' profitability in Nigeria. Findings of this study indicate that there is significant relationship between liquidity and profitability. That means profitability in commercial banks is significantly influenced by liquidity and vice versa.

Saleem and Rehman (2019) sought to reveal the relationship between liquidity and profitability. The main results of the study demonstrate that each ratio (variable) has a significant effect on the financial positions of enterprises with differing amounts and that along with the liquidity ratios in the first place. Profitability ratios also play an important role in the financial positions ofenterprises.

Arif (2020) tested liquidity risk factors and assessed their impact on (22) of Pakistani banks during the period (2014-2019). Findings of the study indicate that there is a significant impact of

liquidity risk factors on the banks profitability, where an increase in deposits lead to increasing in the bank's profitability in terms of reducing dependence on the central bank in meeting the customers' obligations, and profitability is negatively affected by the allocation of non-performing loans and liquidity gap.

Agbada and Osuji (2020) examined empirically the effect of efficient liquidity management on banking performance in Nigeria. Findings from the empirical analysis were quite robust and clearly indicate that there is significant relationship between efficient liquidity management and banking performance and that efficient liquidity management enhances the soundness of bank.

Lartey (2021) sought to find out the relationship between the liquidity and the profitability of banks listed on the Ghana Stock Exchange. It was found that for the period 2015-2020, both the liquidity and the profitability of the listed banks were declining. Again, it was also found that there was a very weak positive relationship between the liquidity and the profitability of the listed banks in Ghana.

Moein-Addin (2020) investigated the relationship between modern liquidity indices and stock return in companies listed on Tehran Stock Exchange. Results indicated that there was a positive and significant relationship between comprehensive liquidity index and stock returns while there was no significant relationship between the index of cash conversion cycle as well as net liquidity balance and sock returns.

Maaka (2021) in their research sought to establish the relationship between liquidity risk and financial performance of commercial banks in Kenya. The study adopted correlation research design where data was retrieved from the balance sheets, income statements and notes of thirty three (33) Kenyan banks during 2015-2019. Multiple regressions was employed to assess the impact of liquidity risk on banks' profitability and the findings were that profitability of the

commercial bank in Kenya is negatively affected due to increase in the liquidity gap and leverage. With a significant liquidity gap, the banks may have to borrow from the market even at a higher rate thereby pushing up the cost of banks. The level of customer deposit was also found to positively affect the bank's profitability and it will therefore be encouraged for banks to open more branches in the country.

Obiakor and Okwu (2021) examined the nature and extent of the relationship between liquidity and profitability of Nigerian banks. A model of perceived functional relationship was specified and estimated using correlation and regression analysis. The results indicated that a trade-off existed between liquidity and profitability in the banks.

Uremadu (2021) carried out a study on the effect of capital structure and liquidity on the profitability of selected Nigerians banks. Time series data for the 2011 to 2020 period was usedfor the study. The data was analyzed using descriptive statistics and regressive distributed lag (ARDL) model. The empirical results indicated a positive and significant relationship between cash reserve ratio, liquidity ratio, corporate income tax and banks' profitability. On the other hand, there was negative and significant relationship between savings deposit rate, gross national savings, balances with the central bank, inflation rate, foreign private investmentand bank profitability.

Ibe (2021) investigated that impact of liquidity management on the profitability of banks inNigeria. Three banks were randomly selected to represent the entire banking industry in Nigeria. The proxies for liquidity management include cash and short-term fund, bank balances and treasury bills and certificates, while profit after tax was the proxy for profitability. Elliot Rosenberg Stock (ERS) stationary test model was used to test the association of the variables under study, while regression analysis was used to test the hypothesis. The result showed that

there is a statistically significant relationship between the variables of liquidity management and profitability of the selected banks.

The study by Kehinde (2022) critically examined the relationship between credit management, liquidity position and profitability of selected banks in Nigeria using annual data of ten banks over the period of 2016 and 2020. The results from ordinary least squares estimate found that liquidity has significant positive effect on Return on Asset (ROA).

Okaro and Nwakoby (2022) examined the effect of liquidity management on performance of deposit money banks in Nigeria. In their study, fourspecific objectives were made from the broad objective which includes: to determine the relationship between liquidity ratio and profitability, to ascertain the relationship between cash to deposit ratio and profitability among others. To address the objectives, research questions and stated hypotheses, relevant data were gathered from CBN and NDIC annual publications for 16years covering 2011-2020 The data were presented in tables and based on the models specified; the hypotheses were tested using regression analysis by employing a statistical package E-view 8.0. The result of the OLS showed that there is a negative and significant relationship between liquidity ratio and DMBs' profitability and there is a positive and significant relationship between cash to deposit ratio and profitability of the DMBs. In line with these findings, it is recommendedthat instead of keeping excessive liquidity as a provision of unexpected deposit withdrawals from the customers, the DMBs should find it reasonable to adopt other measures of meeting such requirements which can include borrowing and discounting bills and also that there is a need to invest the excess of liquidity available at in available investments with various degrees of liquidity in order to increase the banks' profitability and to get benefits from the time value of the available money.

The study of Eze and Agu (2023) study was carried out on liquidity management and performance of deposit money banks in Nigeria using six banks withinternational affiliation. In particular, the paper established the relationship between the variable of bank performance and those of liquidity management using capital adequacy, liquidity ratio, and current ratio as indicators and bank size as a control variable. Data were extracted from annual reports from the banks' websites for a period spanning seven years (2015– 2021). Descriptive statistics and regression analysis were performed using the E-View 10.0 as instrument for the analysis. Findings indicate a strong positive relationship between capital adequacy and return on equity while liquidity and current ratio showed statistical insignificant negative relationship with return on equity. Bank size showed a strong positive relationship with return on equity. It was recommended that the regulatory body should ensure that deposit money banks in Nigeria are adequately capitalized to guarantee system stability while the bank managers should adhere to reserve requirements from the Central Bank so as to absorb financial shocks and operate profitably.

The study of Ndum (2023) ascertained the effect of annual inflation rate on bank financial performance in Nigeria. Ex-Post Facto research design was adopted. Data were extracted from annual reports and accounts of the selected banks in Nigeria. The population of the study comprises of all the twenty (20) deposit money banks operating in Nigeria as at the time of this research work. According to the Nigeria Stock Exchange (NSE), twenty (20) deposit money banks operate in Nigeria as at the end of year 2019. Regression analysis was employed to test the hypothesis with SPSS 20.0. The analysis shows that the annual inflation rate does not positively influence banks' financial performance. Based on the result, the researcher recommended that

banks should be able to anticipate inflation rate periodically to adjust their interest rate in order to make profit.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

This desk study adopted the descriptive research design in line with Bassey and Moses (2015) andRamadan, Kilani, and Kaddumi (2011) as contained in Otekunrin, Fagboro, Nwanji, Asamu, Ajiboye and Falaye (2019) and Eze and Agu (2020). This approach combines theoretical consideration with empirical observation and maximum information from the available data. This study relied on historical time series for its secondary data which formed the entire source for this study. Therefore, the research design adopted is the ex-post facto research design.

3.2 Characteristics of Study Population

This study focuses on the relationship between the liquidity management and deposit money banks in Nigeria. Therefore, the population of this study comprises the nineteen (19) deposit money banks in Nigeria as at 2024.

3.3 Sampling Design and Procedures

The sample size of the research work is all the deposit money banks with international authorization. Therefore, the sample size of this study is eight. This number represents all the deposit money banks with international authorization. They are: Access Bank, FCMB, Fidelity Bank, First Bank of Nigeria, Guaranty Trust Bank, Union Bank, United Bank for Africa and Zenith Bank. The sampling technique adopted for this study is judgmental sampling technique. This is so because these are the banks that have all the relevant data for this study.

3.4 Method of Data Collection

Secondary data relating to the annual reports of the selected deposit money banks listed in The Nigerian Exchange Group as at 2024 served as the sole data collection instrument. In addition to

this, secondary data from data sources- The Nigerian Stock Exchange Factbook, Cash Craft Website and Capital Asset Limited Website were obtained.

3.5 Operational Measure of Variables

Dependent Variable

In this study, performance is employed as the dependent variable of the model. There are various measures of performance each of which revolves around profitability. However, profitability could be in terms of prior or post tax. Previous studies used measures of profitability such as return on asset, return on equity, firm margin etc., (Charmler, Musah, Akomeah & Gakpetor, 2018). This study adopted return on equity as a proxy for performance.

Independent Variables

Liquidity management is measured by three variables in this work:

Capital adequacy which is expressed as total equity to total assets in percentage;

Liquidity ratio, measured as loans and advances to total assets and;

Current ratio, measured as the ratio of cash and cash equivalent to current liabilities.

3.6 Method of Data Analysis

Theanalysis carried out to determine the type of relationship existing between liquidity management and performance of deposit money banks in Nigeria with international affiliation employed the ordinary least square technique with the aid of E-views 10.0 output.

Model Specification

This paper adopted the regression method for panel study employed by Kuznetsov and Muravyev (2001) with the general form given as $Yit = \alpha + \beta Xit + eit$

Where: i = the individual cross-sectional dimension (i.e. Banks), and t = the time dimension (i.e. 2015-2021);

α = constant/intercept; β = the coefficients;

Yit = dependent variables/Profitability measure (which is a measure of return on equity);

Xit = the independent variables of the model (capital adequacy, liquidity ratio, current ratio and size as control variable);

eit = the residual error of bank i at time, t.

$ROE_{it} = \beta_0 + \beta_1 CADQ1_{it} + \beta_2 LIQDT2_{it} + \beta_3 CR_{it} + \beta_4 SIZE_{it} + \varepsilon_{it}$

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Data Presentation and Analysis

Table 4.1: Descriptive Statistics

	ROE	CADR	LIQDR	CAR
Mean	18.89829	13.72268	0.498859	0.356388
Median	19.88000	14.19000	0.469400	0.347800
Maximum	37.41000	18.48000	0.945100	0.785300
Minimum	4.780000	8.540000	0.306100	0.145400
Std. Dev.	8.309932	2.403716	0.144411	0.155894
Skewness	0.223553	-0.274491	1.522348	0.511346
Kurtosis	2.448496	2.661724	4.882522	2.636384
Jarque-Bera	0.861104	0.710346	21.89069	2.012616
Probability	0.650150	0.701052	0.000018	0.365566
Sum	774.8300	562.6300	20.45320	14.61190
Sum Sq. Dev.	2762.199	231.1140	0.834183	0.972113
Observations	40	40	40	40

Source: *Researcher's E-View 10.0 Output.*

The summary of the statistical properties ofthe variables used in this empirical study as shown above in table 4.1 presented the average value of the Return on Equity (ROE), a performance proxy of the selected Nigerian banks as 189% approximately (18.89829), this implies sample selected banks on average earned a net income of 189% of total asset with a maximum and minimum value of 37.41000 and 4.780000. The standard deviation is 8.309932. On the other hand, the average value of the sampled banks' liquidity management is 137 percent (13.72268)which was measured by Capital Adequacy (CADQ), this reflects that these banks operate with 137 percent level of total equity to total asset and the maximum and minimum value of 0.785300 and 0.145400. The standard deviation is 0.155894. Finally, a supporting variable, bank size has on average up to 640% (i.e., 6.400785) of the sampled banks with the maximum and minimum value of 6.854100 and 6.003600 respectively. It deviates by 0.244300 from the mean value of the sample of selected Nigerian banks. In this case, Skewness coefficient shows

that all the variables under study have values less than 1 and this indicates that their frequency distribution is normal. Kurtosis coefficient support the result of Skewness as it relates to return on equity (ROE), Capital Adequacy (CADQ), current ratio (CR) and bank size (SIZE) as their coefficient is less than 3, except for Liquidity ratio (LIQDT) which has value greater than 3 indicate that they are not normally distributed. Jarque – Bera statistic show that the return on equity (ROE), Capital Adequacy (CADQ), current ratio (CR) and bank size (SIZE) have p-value greater than 0.05 which show that they are not significant and it implies that they are normally distributed supporting the result of Kurtosis.

Table 4.2. Panel OLS. Dependent Variable: ROE

Method: Panel Least Squares

Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
CAR	-9.927049	4.379274	-2.266825	0.0249
LIR	-0.028774	0.022100	-1.301996	0.1950
CR	0.003107	0.000696	4.464901	0.0000
EPS	0.011126	0.000907	12.26144	0.0000
C	1.359021	0.364617	3.727261	0.0003

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.736026	Mean dependent var	1.365612
Adjusted R-squared	0.703482	S.D. dependent var	3.598116
S.E. of regression	1.959300	Akaike info criterion	4.291016
Sum squared resid	560.4731	Schwarz criterion	4.648670
Log likelihood	-335.0088	Hannan-Quinn criter.	4.436200
F-statistic	22.61586	Durbin-Watson stat	2.074481
Prob.(F-statistic)		0.000000	

Interpretation of Panel OLS

This study is focused on the liquidity management and financial performance of the DMBs of Nigeria. Its liquidity is measured by the accounting liquidity ratios (CADQ, LIQD, CR) and the financial performance is measured by the ROE of the bank, its control variables are the bank's size measured by total assets and their EPS. From the Table 2 above, the adjusted r-squared which is denoted by 0.7034 indicates that 70.34% change in the dependent variable (ROE) as a result of the change in the independent variables (CR, LIQD, CADQ) whereas the remaining 29.66% is affected by other factors not captured in the model. From the panel OLS, we can see that the cash ratio (CR) is negatively significant, same as the liquid ratio (LIR) whilecapital adequacy is positively significant also the F-statistics is 22.61586. The Durbin-Watson stat value is 2.0 which indicate that there is no autocorrelation in the sample. The EPS is used as the control variable which shows a positive significant effect on the Panel OLS, overall this panel OLS shows that liquidity management has a positively significant effect on the profitability of the DMBs of Nigeria.

4.2 Test of Hypotheses

H_O1: There is no relationship between liquidity ratio and return on equity of deposit money banks in Nigeria.

H_O2: Capital adequacy ratio has no effect on return on equity of deposit money banks in Nigeria.

H_O3: Current ratio has no relationship with return on equity of deposit money banks in Nigeria.

Table 4.3: Panel Least Squares
Dependent Variable: ROE

Method: Panel Least Squares
Date: 07/09/24 Time: 04:42
Sample: 2019 2023
Periods included: 5
Cross-sections included: 8
Total panel (unbalanced) observations: 40

Variable	Coefficient	Std . Error	t-S tatistic	Prob.
CAD Q	1.502700	0.3 94738	3.8 06830	0 .0005
LIQDT	-4.673370	6.358688	-0.734958	0.4671
CR	-5.140108	5.854585	-0.877963	0.3858
SIZE	26.33957	3.695169	7.128111	0.0000
C	-166.1535	24.67346	-6.734100	0.0000

R-squared	0.62 1518	Mean dependent va r	18.8 9829
Adjusted R-squared	0.579464	S.D. dependent var	8.309932
S.E. of regression	5.388886	Akaike info criterion	6.320404
Sum squared resid	1045.443	Schwarz criterion	6.529376
Log likelihood	-124.5683	Hannan-Quinn criter.	6.396500
F-statistic	14.77919	Durbin-Watson stat	0.982797
Prob(F-statistic)	0.000000		

Source: *Researcher's E-View 10.0 Output*

From the regression analysis, Table 4.2indicates that there is a positive (t-statistics, 3.806830) and significant (p-value, 0.0005) association between Capital Adequacy (CADQ) and Return on Equity (ROE) of the sampled banks. This positive effect implies that a 1% increase in Capital Adequacy (CADQ) will tend to increase the level of Return on Equity (ROE) by 1.502700.By this, Capital Adequacy (CADQ) has positive significant effect on the Return on Equity (ROE) of the selected banks. The same table above also showed that the supporting variable, Bank size has a positive significant effect on the Return on Equity (ROE) of the selected banks with t-statistics of 7.128111 and p-value of 0.0000.This implies a 1% increase in the Size of the banks will tend to increase the level of Return on Equity (ROE) by 26.33957. In contrary, Liquidity of the banks

has a negative (t-statistics, -0.734958) and insignificant (p-value, 0.4671) effect on Return on Equity (ROE) of the sampled banks. This negative effect implies that a 1% increase in Liquidity (LIQDT) will tend to decrease the level of Return on Equity (ROE) by -4.673370.This is in consonance with Marozva (2015) research report. Insame vein, Current ratio (CR) resulted to a negative (t-statistics, -0.877963) and insignificant (p-value, 0.3858) effect on Return on Equity (ROE) of the sampled Nigerian banks. The negative effect indicates an inverse relationship between current ratio andReturn on Equity (ROE) of the selected banks. R2 measures the percentage of Return on Equity that could be explained by changes in independent variables, Capital Adequacy (CADQ), Liquidity (LIQDT), Bank size (SIZE) and Current ratio (CR).Here, R2 adjusted is 0.579464 (58%) which implies that 58% of variation in return on equity could be explained by the effect of independent variables while about 42% could be attributed to other factors capable of effecting changes in return on equity of Nigerian banks. Here also, the Durbin-Watson statistic is 0.982797. This indicates the absence of autocorrelation in the data series.

4.3 Discussion of Findings

The following findings were made concerning theinterplay between liquidity management and performance of deposit money banks in Nigeria**.**

a. There is statistical positive and significant relationship between Capital Adequacy (CADQ) and Return on Equity (ROE) of the Deposit Money Banks in Nigeria.
b. There is statistical negative and insignificant relationship between Liquidity (LIQDT) and Return on Equity of the Deposit Money Banks in Nigeria.
c. Current ratio (CR) has statistical insignificantnegative correlation with Return on Equity of theDeposit Money Banks in Nigeria.

Further finding from the analysis revealed anexistence of a negative and insignificant effect between return on equity and current ratio. The result indicates that returns on equity has a negative association with current ratio, an affirmation that excess cash do not significantly determine returns on assets or equity. The result however, conflicts with the finding in the study carried out by Otekunrin et al (2019). The p-value of the F-statistics at 5% level explains that the null hypotheses should be accepted and that the independent variables insignificantly link with the dependent variable. Also, the Durbin-Watson result shows the absence of autocorrelation in the data series and confirms the statistical reliability of the model which shows that there is a significant relationship between return on equity as a proxy for performance and liquidity management.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

Finding from the analysis revealed anexistence of a negative and insignificant effect between return on equity and current ratio. The result indicates that returns on equity has a negative association with current ratio, an affirmation that excess cash do not significantly determine returns on assets or equity. The p-value of the F-statistics at 5% level explains that the null hypotheses should be accepted and that the independent variables insignificantly link with the dependent variable. Also, the Durbin-Watson result shows the absence of autocorrelation in the data series and confirms the statistical reliability of the model which shows that there is a significant relationship between return on equity as a proxy for performance and liquidity management.

The following findings were made concerning theinterplay between Liquidity Management and Performance of Deposit Money Banks in Nigeria**.**

a. There is statistical positive and significant relationship between Capital Adequacy (CADQ) and Return on Equity (ROE) of the Deposit Money Banks in Nigeria.
b. There is statistical negative and insignificant relationship between Liquidity (LIQDT) and Return on Equity of the Deposit Money Banks in Nigeria.
c. Current ratio (CR) has statistical insignificantnegative correlation with Return on Equity of theDeposit Money Banks in Nigeria.

5.2 Conclusion

Referring to the analysis and findings as shownabove, profitability and capital adequacy of deposit money banks in Nigeria have a positive relationship. This entails that an increase in

capital leads to an increase in profitability of the banks and vice versa. This finding agrees with the works of scholars such as Kosmidou (2008); and Molyneux (1993) in Charmler et al (2018). Naceur and Kandil (2009) in their opinion concluded that banks with higher level of equity operate at reduced cost of capital and can as well invest part of their capital in the interbank market and other investment window to increase profitability. Besides, deposit money banks with strong capital base have the clout and capacity to absorb financial shocks and invest in portfolios considered risky but with higher returns which shore up profitability.

Size as a control variable in the model showed a significant and positive relationship with return on equity, the performance proxy. This aligns with the findings of Amidu (2007) and Musah (2017), an indication that larger banks operate at economies of scale and diversification status which tend to increase profitability with favourable influence on risk and product portfolio.

The p-value of the F-statistics at 5% level explains that the null hypothesis should be rejected and that the independent variables significantly link with the dependent variable. The study result showed a negative relationship between liquidity and return on equity. This means that as liquidity increases, the return on equity decreases.This agrees with (Marozva,2015; Raheman & Nasr, 2007; Liu et al (2010); Ogonna & Ikechukwu (2016). However, findings from scholars like Rachi (2013), Larty et al (2013), Sile et al (2019) and Daniel (2017) revealed a positive relationship, thus an interplay exists between excess liquidity and profitability on the opposite continuum. It requires that banks should maintain a balance between the two because excessive liquidity stifles profitability as excessive profitability is vulnerable to banks' insolvency (Flannery & Rangan, 2008).

5.3 Recommendations

Flowing from the conclusion, liquiditymanagement proxied by capital adequacy, liquidity ratio, current ratio and bank size as a control variable are related with performance proxied by return on equity. On the strength of the above outcome, the following recommendations are made:

i. The central bank of Nigeria as the regulator ofthe banking industry should ensure that banks areadequately capitalized to maintain system stability andensure a level of progress in the industry.

ii. Efficient liquidity is a pronouncement toprofitability and solvency which calls for themaintenance of the required ratios as wouldperiodically be demanded by the apex banks.

iii. Bank managers should be aware of the dangersimminent from holding excess cash or lack of cash andavoid any of this. Excess cash should be invested inshort term instrument to earn and shore up profit for thestakeholders while a watchful eye should be kept todiscern when the cash level falls below the required soas to avoid customers' ill-will and a consequent bankrun that can lead to a technical insolvency. Essentially,deposit money banks in Nigeria are required to strike abalance between liquidity and profitability for systemstability to hold.

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APPENDIX 1

Year	ROA (%)	ROE (%)	NIM	LR	LDR	LTAR	TA	CDR	AU
2019	-0.04	-0.28	11.92	25.0	5.0	90.1	25.0	2.1	57.28
2020	2.62	22.20	12.13	30.0	5.3	94.7	30.0	1.5	73.73
2021	2.15	19.14	11.71	30.0	5.0	99.7	30.0	1.1	85.57
2022	2.33	20.34	13.2	30.0	6.1	99.9	30.0	1.56	63.43
2023	2.91	23.7	11.1	30.0	6.2	98.5	30.0	2.12	74.37

Source: CBN publications for various years

APPENDIX 2

Bank	**R**	**R2**	**DW**	**RegSS**	**ResSS**	**F**	**Sig.**	**A**	**βI**	**t-value**
First Bank	0.195	0.038	2.657	0.149	3.752	0.317	0.589	2.054	-0.045	-0.563
EcoBank	0.226	0.051	1.828	0.340	6.323	0.376	0.559	1.518	-0.071	-0.613
Unity Bank	0.114	0.013	2.527	5.748	436.214	0.119	0.738	3.292	-0.277	-0.344
GTB	0.291	0.085	0.594	1.228	13.294	0.831	0.386	2.718	0.128	0.912
Fidelity Bank	0.148	0.022	2.917	0.044	1.972	0.200	0.665	0.833	0.024	0.448
Zenith Bank	0.116	0.013	1.400	0.078	5.749	0.122	0.735	2.275	0.032	0.349
Sterling Bank	0.076	0.006	2.584	0.107	18.613	0.052	0.825	1.146	-0.038	-0.228
Union Bank	0.148	0.022	2.726	20.703	925.964	0.201	0.664	-7.742	0.525	0.449
Overall Banks" Result	0.041	0.002	2.592	0.074	44.126	0.015	0.905	0.839	0.031	0.122