Liquidity Management and Profitability of Deposit Money Banks in Nigeria

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Abstract
The Effect of Liquidity Management on the Profitability of Deposit Money Banks in Nigeria, the problem of most Nigerian money deposit banks is that they tend to focus more on profit maximization than taking liquidity measures to meet the demands of their customers and fulfilling their obligations to their clients as at when due and in that process, they are losing a large proportion of their clients. It is believed this issue can be resolved if the banks take their liquidity management as necessary as the way they focus on profitability so that they can benefit from the impact of a well-managed liquidity on profit maximization. The main objective of this study was to investigate the liquidity and profitability of deposit money banks in Nigeria. The research work adopted the ex-post facto research design. The population of this study was fourteen (14) deposit money banks listed on the Nigerian Exchange Group. The study made use of secondary data. Data from the financial reports were extracted using content analysis from the financial statements of the selected banks. Descriptive statistics and linear regression analysis were adopted as the data analysis technique of this study. The following were the major findings of the study: There is a significant effect of current ratio on the profitability of banks in Nigeria. There is a significant effect of cash ratio on the profitability of banks in Nigeria. There is an insignificant effect of debt-to-assets ratio on the profitability of banks in Nigeria. Based on the findings of the study, it can be concluded liquidity significantly affects the profitability of banks. However, based on the result of the analysis, the debt to assets ratio had insignificant effect on the profitability of banks in Nigeria. The following recommendations were raised; The management of the deposit money banks should maintain an equilibrium in the management of their current ratio. This would assist in the improvement of their profitability as a higher current ratio would lead to more profit for the bank as well as boosting of the depositor's confidence in the banks.

KEY WORDS: *Cash Ratio, Current Ratio, Current Ratio*

SECTION ONE

INTRODUCTION

1.1 Background to the study

Profitability is the ability of an organization to generate earnings. The rate or level of the earnings is determined by factors such as liquidity. Liquidity risk arises from the inability of banks to accommodate decreases in liabilities or to fund increases in assets. Inadequate liquidity in a bank can result to insufficient funds; either by increasing liabilities or by promptly converting assets to cash at a reasonable cost. Due to the liquidity challenges and their attendant negative effects on profitability in Nigerian banks two decades ago, the Central Bank of Nigeria (CBN) undertook a re-capitalization excise in the sector in 2024. Consequently, today, the study of liquidity management has become more relevant and pronounced in the subsector. Liquidity represents the capability of a business organization to finance increase in assets and to equally meet required and unforeseen cash and deposit obligations at a reasonable cost and without incurring unacceptable losses (Margaretha & Spartina, 2016; Shaibu & Okafor, 2020). It can be inferred from the foregoing that the composites of liquidity management include cash ratio and loan ratio.

Further, as alluded to by the liquidity preference theory, people require the services of banks to either carry out cash transactions or to store money as wealth (Bibow, 2005). Corroborating this view, shiftability theory adds that banks that cannot meet the transaction needs of their customers from the available cash can convert their assets into cash (Sanni, 2006). As such, banks that have difficulty in meeting customers' cash demand such as loan may experience dwindling profitability as a result of the cash inflow (interest) from the supposed loan. Again, in the event of the customers that have assessed loans defaulting, the bank's profitability is also affected negatively; owing to reduction in the available cash in the bank and increase in losses associated with unpaid interests and/or loaned sum. Moreover, these situations may result to loss of customers' confidence in the bank and/or panic withdrawal.

Research has shown that liquidity management is directly related to effective use of assets (Shekhar & Jena, 2020), while liquidity shortage disrupts the operations of financial institutions, and the relationships with their customers (Shrestha, 2018). It has been reported that liquidity management (current ratio, cash ratio, quick ratio, capital adequacy ratio and interest coverage ratio) is positively and significantly related to profitability (return on equity, return on assets and earnings per share) in financial institutions and manufacturing firms within the period 2006 to 2019 (Afolabi & Williams, 2019; Dadepo & Afolabi, 2020; Fagboyo et al., 2018; Garba, 2020; Malik & Aqeel, 2017; Sinarti & Rahmadany, 2018). The negative and strong relationship between liquidity management (cash-deposit ratio and investment-deposit ratio) and profitability (return on equity) among financial institutions (2011 to 2017) has been established in extant literature (Mishra & Pradhan, 2019; Mohanty & Mehrotra, 2018). Liquidity management (cash to total asset, liquid asset to total assets ratio, loan to total deposit ratio, capital adequacy ratio, liquidity ratio, non-performing loan ratio and interest margin) has been found to have a positive and significant

effect on the profitability (return on assets) of financial institutions (Anandasayanan, 2020; Shaibu & Okafor, 2020; Zidan, 2020).

It can thus be deduced from extant literature that plethora of studies relating liquidity management and profitability have been conducted in different parts of the world using various proxies. Also, most of the studies have been situated in financial institutions. However, firstly, similar studies that have utilized secondary data spanning 2007 to 2020 are somewhat nonexistent. Secondly, there is a rarity of related previous studies that focuses on the Nigerian deposit money banks using cash ratio and loan ratio as proxies of liquidity management and return on assets as dimensions of profitability.

1.2 Statement of problem

For the banks to remain relevant and survive, there is the need to understand the effects of internal factors such as liquidity management which they can play to their gain to maximize returns. Research discovers that provision for bad and doubtful debts that rise steadily in banks annual reports, indicate that credit component of the banks' portfolio is poorly managed. The studies realized that the affected banks were writing off huge amounts of debts yearly and also reflected some on-going concerns that related to their management of credit and finance, equally many banks have given out loans and advances which could not be recovered leading to a massive growth in Non-Performing Loans (NPLs) in their accounts. This unpalatable scenario of recording bad loans is sending a bad signal to the investors within the economy. Generally, it is observed that the main cause of liquidity management in these institutions is a mismatch between the assets and the liabilities.

This is measured using the maturity mismatch gap, the larger the funding gap the higher the probability of a liquidity management crisis. According to Banks (2005), poor liquidity management reduces the financial performance of a financial institution; however the default rate is the main determinant of the financial performance of a bank. As a result, that the distressed banks in the economy over the years have discouraged the confidence of depositor, investors and the Government sectors.

The Nigerian banking system is overwhelmed with significant rate of bad liquidity management, which led the Nigerian Central Bank to engage in a recapitalization process from 10 billion to 500 billion naira to allow banks raise and maintain adequate capital to sustain necessary capitalization and having a reasonable liquidity in 2024 (Mark Jackson et al., 2017). In September 2018, for instance, the Central Bank of Nigeria (CBN) announced the liquidation of Skye Bank with Polaris Bank to takeover over the issue of failing to meet liquidity requirements. Recently, in 2019; the Central Bank of Nigeria has extended the target for the recapitalization of micro-finance banks to 2024 thereby increasing the minimum capital base for national micro-finance banks to 20 billion from 5 billion naira, while that of state was increased to 10 billion from 1 billion naira. In 2024, the Central Bank of Nigeria introduced reforms to boost a robust financial system. The aim is to enhance banking system stability, maintain adequate capital to enhance their resilience, solvency and capacity to continue to support the growth of the Nigeria economy.

The problem of most Nigerian deposit money banks is that they tend to focus more on profit maximization than taking liquidity measures to meet the demands of their customers and fulfilling their obligations to their clients as and when due and in that process, they are losing a large proportion of their clients. It is believed this issue can be resolved if the banks take their

liquidity management as necessary as the way they focus on profitability so that they can benefit from the impact of a well-managed liquidity on profit maximization.

1.3 Objectives of the study

The main objective of this study was to investigate the liquidity and profitability of deposit money banks in Nigeria. While the specific objectives of the study are to:

i. Examine the effect of current ratio on return on assets of deposit money banks in Nigeria.
ii. Evaluate the effect of cash ratio on return on assets of deposit money banks in Nigeria.
iii. Assess the effect of debt to asset ratio on return on assets of deposit money banks in Nigeria.

1.4 Research Questions

In a bid to actualize the research objectives, the following research questions have been formulated which serve as a guide in the researcher's quest for answers. These questions are;

i. What is the effect of current ratio on return on assets of deposit money banks in Nigeria?
ii. What is the effect of cash ratio on return on assets of deposit money banks in Nigeria?
iii. What is the effect of debt to asset ratio on return on assets of deposit money banks in Nigeria?

1.5 Hypotheses of the study

Based on the research objectives, and to answer the research questions of this study, the following null hypotheses were formulated:

Ho1: There is no significant effect of current ratio on return on assets of deposit money banks in Nigeria.

Ho2: There is no significant effect of cash ratio on return on assets of deposit money banks in Nigeria.

Ho3: There is no significant effect of debt to asset ratio on return on assets of deposit money banks in Nigeria.

1.6 Significance of the study

The main purpose of this research is to analyze the liquidity management and profitability of deposit money banks in Nigeria. The study will be of great benefit to policy makers, management of various banks, auditors, shareholders and student researchers.

Policy Makers: The study enables policymakers design regulations that ensure banks maintain sufficient liquidity while optimizing profitability. Policy makers can use the study findings to promote practices that enhance the resilience of banks. Understanding how liquidity affects banks profitability allows policymakers to predict how changes in monetary policy will impact the banking sector and enable better policy decisions.

Management of the bank: The study would enable bank managers have an in-depth understanding of the effects of liquidity management on profitability in deposit money banks. The result gotten from this study would reveal the level of attachment of the deposit money banks to the monetary policies (liquidity ratios) established by the government and these will help the government to set appropriate liquidity ratio's and cash ratio's that will not be harmful to the operation and survival of the deposit money banks.

Auditors: Insights from this study will enables auditors to design more effective audit plans that focus on key areas of liquidity management, ensuring a thorough evaluation of a bank's financial health. Auditors can use findings from liquidity management studies to verify if banks are

complying with regulatory requirements. By understanding the link between liquidity management and profitability, auditors can provide more accurate assessment of a bank's performance. Auditors can offer better advisory services to banks by recommending best practices in liquidity management that enhance profitability and reduce risks.

Shareholders: Shareholders can make more informed decisions based on how effectively a bank manages its liquidity, how its impact profitability and how to accurately value their investment. Shareholders gain insights into potential liquidity risks that could affect bank's profitability and their returns. The findings from liquidity management studies can be used to advocate for better governance practices within the bank.

Researchers: The study will provide valuable empirical data that researchers can use to analyze trends, test hypotheses and develop new models. Researchers can offer evidence-based policy recommendations to regulators and policy makers, helping them to shape more effective and informed banking regulations. The findings can be used in interdisciplinary research, integrating insights from economics, finance, management and other fields to provide a holistic view of banking operations and performance.

SECTION TWO
REVIEW OF RELATED LITERATURE

2.1 Conceptual framework

This section shows the variables used for this study and their relationship. The variables were Liquidity Management (Independent variable) proxied by Current ratio, Cash ratio and Debt to Asset ratio while the dependent variable was Profitability. It shows that profitability of a company is a function of its firm attributes. The variable and their relationship are diagrammatically presented in the figure below;

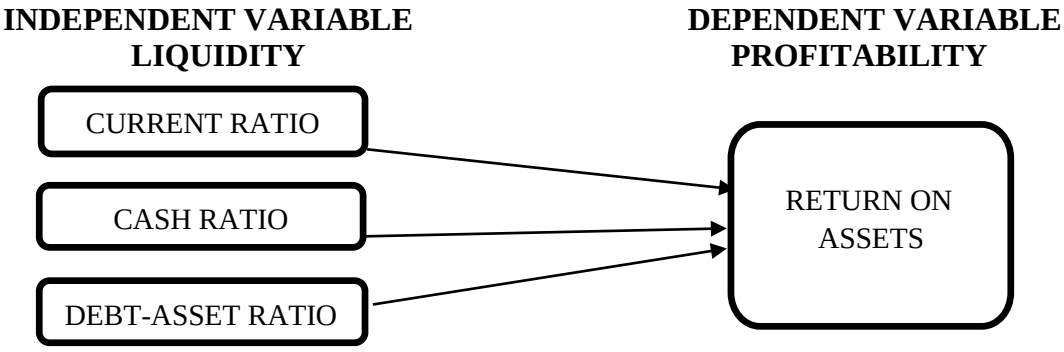

Fig 1: Conceptual framework of variables.
Source: Researcher's Conceptualization (2024)

2.1.1 Liquidity

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. Nwaezeaku (2016) defined liquidity as the degree

of convertibility to cash or the ease with which any asset can be converted to cash (sold at a fair market price).

Liquidity management therefore involves the strategic supply or withdrawal from the market or circulation of the amount of liquidity coexistence with a desired level of short-term reserve money without distorting the profit-making ability and operations of the bank. It relies on the daily assessment of the liquidity conditions in the banking system, so as to determine its liquidity needs and thus the volume of liquidity to allot or withdraw from the market. The liquidity needs of the banking system are usually defined by the sum of reserve requirements imposed on banks by a monetary authority (CBN 2012).

Liquidity is the capacity of business concerns to meet maturing financial obligations. It is also portrayed as the conversion and exchangeability of an asset for another in a timely and cost effective manner. The conception of liquidity in the economic literature relates to the ability of an economic agent to exchange his or her existing wealth for goods and services or for other assets Williamson (2008). It enables the banks to fund new funds to honor the maturing obligation such as a sudden rise in borrowing under automatic or agreed lined of credit or to be able to undertake new leading when desirable for instance a request from a highly valued and placed customers. The term Liquidity can be regarded in terms of flows; in other words, it is known as Flow concept. In this concept, liquidity will refer to the held back flows among the agents of the financial system, with directives on the flow among the Central Bank, Deposit money banks and markets. It refers to the ability of realizing these flows, inability of doing so would render the financial entity illiquid.

2.1.2 Liquidity Management

Liquidity management has assumed strategic position in bank management hierarchy due to its critical nature highlighted by recent market turmoil. It is the core function of revenue generation, lending and payment. Success of any bank depends on level of liquidity that is sufficient for its operation. Inefficient management of liquidity results in serious impairment of banking functions and contagious effect on the economy. A bank is to be liquid if it stores sufficient liquid assets and cash together with the ability to raise fund quickly from other sources to enable it to meet its payment obligations and financial commitments in a timely manner.

Liquidity management represent strategies employed by banks to meet deposit and loan demands. These strategies include holding of short-term financial assets (treasury bill and treasury certificate) (Ebhodagbe, 2015). Liquidity management is an on-going process to ensure that cash needs can be met at reasonable cost for a bank to maintain the required level of reserves with the CBN and to meet expected and contingent cash need (Shekhar & Jena, 2020). Liquidity management enable banks compensate for expected and unexpected statement of financial position fluctuation and to provide funds for growth, to accommodate the redemption of deposits and other liabilities and to cover funding increases in the loan and investment portfolio (Samuel, 2015). A minimum operating liquidity level is essential to maintain a comfortable cushion beyond the minimum statutory requirement of 30%, to meet cash needs. A desired target maximum for operating liquidity also needs to be established to reflect the fact that too much liquidity is detrimental to earnings.

From policy perspective, under normal circumstances, double-checking of liquidity ratios and liquidity flows could prove useful in designing a robust prudential approach to liquidity. Liquidity management lays emphasis on the need for daily assessment of the liquidity conditions

in banking system, to determine its liquidity needs and thus the volume of liquidity to assign or withdraw from the market. These liquidity needs are defined by the sum of reserve requirements imposed on daily liquidity forecasting of the CBN balance sheet to guide bank's management on the expected level of liquidity in the system over a period from the current period, so that appropriate measures are taken to prevent undesirable market developments, that may negatively impact on the objective of price stability and profitability.

A portfolio of short-term financial securities held by a bank can be easily sold or rediscounted for cash. `This approach plus inter-bank borrowings as well as short term accommodation by CBN constitute major sources of liquidity for Nigerian banks. Improved liquidity planning, greater drive for deposits and injection of fresh capital are therefore some available avenues for banks to overcome their liquidity problems.

2.1.3 Sources of Liquidity

Financial institutions have increasingly funded loan growth not only by reducing their level of highly liquid investments, but also by seeking alternative funding sources. Funding theories classify sources of liquidity into two namely: Stored liquidity and Purchased liquidity. The deposit money banks fund their operations through the following means:

a) **Asset-based sources:** This is a source in which funds are temporarily invested or stored with the hope that they would either mature when liquidity is needed or be sellable without material loss in advance of maturity. Stored liquidity theory is based on three asset liquidity theories – liquid asset, real bill doctrine and shiftability theories of liquidity management (Nzotta, 2012). The liquid assets include cash and balances due to other banks, call balance with CBN, balance with other banks at local and foreign, call money funds, short term government securities such as treasury bills, treasury certificates and government bonds near maturity within three years; commercial paper, certificate of deposit and other marketable securities e.g. local and state securities.

b) **Liability-based sources:** This is also called purchased liquidity. Bank liabilities include all sources of funds acquired and the main sources of bank funds are (i) deposit accounts (ii) borrowed funds and (iii) long term funds. For example, banks receive from large depositors and also borrow from the big investment banks in order to utilize their investment opportunities. The funds are pooled together and then allocated to various earning and nonearning assets as appropriate. It extends to include borrowing from CBN through discount or advances, call money held for other banks, certificate of deposits, and other liabilities like large time deposits of local and state government and pension funds etc. Liability funding theory holds that funds can be purchased from the market at a price and used for profitable investment e.g. lending and other investment. Such markets include inter-bank market in which the excess fund in the counterparty's bank can be lent to members at a cost .25 to 1.00. However, easiness of this transaction depends on the credit worthiness of the borrowing bank and the economic condition. It is the private last resort for liquidity funding. Other markets include money and capital markets. This is the largest source of liquidity. It is a market for wholesale of financial assets. Commercial papers of varied ratings are sold. In this market pre-maturity assets are also liquidated.

c) **Off balance sheet sources:** Kashyap et al. (2012) suggest that banks may also create significant liquidity off the balance sheet through loan commitments and similar claims to liquid funds. This source has become very important in the management and analysis of liquidity. Depending on the transaction and level of interest rate at the period, off balance sheet activities can either increase

cash inflow or outflow. For instance, interest rate risk debt can be hedged through an interest rate swap arrangement with a highly rated investment bank. If a fixed rate is higher than the floating rate, the bank receives payment for the difference between the two rates and vice-versa. Hence the cash flow from the derivative portfolio aids in the determination of liquidity. The modern theory of financial intermediation shows bank as playing liquidity creation role, by transforming of short-term deposits into long term investment. By investing in illiquid loans and financing them with demandable deposits, banks can be described as pools of liquidity in order to provide households with coverage against consumption shocks.

2.1.4 Factors influencing liquidity

A bank's liquidity needs depend significantly on the balance sheet structure, product mix, and cash flow profiles of both on-and off balance-sheet obligations. External events and internal financial and operating risks (interest rate, credit, operational, legal, and reputation risks) can influence the liquidity profile of an institution. The ability of a bank to provide liquidity requires the existence of a highly liquid and readily transferable stock of financial assets. Liquidity and transferability are the key ingredients for such transactions.

The liquidity requirement means that financial assets must be available to owners on short notice (a day or less) at par. The transferability requirement means that ownership rights in financial assets must be portable, at par, to other economic agents, and in a form acceptable to the other party, (Sinkey and Joseph, 2013). Edem, (2017) broke down the factors in to the following:

a) **Short Term Interest Rate:** Short term interest rate affects liquidity management as it is influenced by the monetary policy. When interest rates change, these differences can give rise to unexpected changes in the cash flows and earnings spread among assets, liabilities, and off-balance-sheet instruments of similar maturities or re-pricing frequencies, (Wright, and Houpt, 2012). The Central and world banks have now published average annual interest rates and banks are expected to disclose more detailed financial information for the determination of spread in the banking system without cost. This stresses the importance of interest rate spread. Intermediation spread is an outcome of bank's decision and is affected by micro and macro level factors. Spread is subject to many macro level issues that shape the efficiencies in financial sector performance. It is a reward for liquidity risk earned by transformation of deposit into loan and for selecting and monitoring the right kind of borrowers. Spread provides sufficient margins for the banks to continue its operations in the market. To be relevant banks must manage other risks such as market risk, legal risk, liquidity risk, strategic risk etc. to enable them cover costs of operation and give good returns for equity holders. Interest rate spread or financial intermediation spread is an important indicator for the banking system and the intermediation process. It is associated with cost of financial intermediation. Interest rate spread between lending and deposit rates may be used for making judgment on banks efficiency in individual bank or banking efficiency in overall spread of banking system. Overall spread of banking system can be used for assessing profitability and pricing behavior of banks while spread between high and low of inter-bank rates can be used for the early indication of change in risk perception. Market competition in the banking sector affects spread. A bigger bank enjoys the benefit of bargaining power over other customers thereby giving the opportunity to widen the spread and indeed increase its profit margin. However, it is obvious that no single bank can extremely dominate loan market due to little product differentiation between

banks. There are two markets here - the loan and deposit markets. These markets influence the spread coupled with other environmental factors.

b) **Macroeconomic Condition:** The recent crisis has highlighted the importance of liquidity as an influence on banks' ability to extend credit and on economic activity. The level of economic activities affects the liquidity holding of a bank. An increase in economic activities of the country indicates that customers demand for loans will increase, and with improved lending activities, banks would be able to generate more profits. Macroeconomic variables like GDP growth rate, short term interest rate, inflation among others affect corporate liquidity holding. In examining the linkages between real economy and bank performance, Laeven and Majnoni (2013) find evidence that banks increase provisions when earnings increase, but provisions also increase when GDP growth falls. They investigated how loan loss provisions adjust to changes in GDP growth, bank earnings and loan growth and conclude that banks' provisions increase when earnings are strong; and during recessions to reinforce the business cycle but do not increase provisions during normal business period. The empirical evidences show that banks hold large of liquidity during recession than the normal business period. Furlong and Krainer (2014) note that a bank's exposure to economic conditions depends on its portfolio/overall level of lending activity and specific loan exposures to specific industries. Their study identified differences in the correlations of bank level profitability ratios to state-level averages and interpreted as evidence of the peculiar nature of the linkage between economic condition in a state and the performance of a bank. Jacobson posits that the weaker macroeconomic conditions reduce revenues and business profits and the incomes of households, resulting in households' and businesses' net worth increasing or decreasing slowly.

2.1.5 Liquidity Ratio

Risk of liquidity is dangerous to the image of a bank. Bank has to take a proper care to hedge the liquidity risk and at the same time ensure that good percentage of funds is invested in high return generating securities, so that it is in a position to generate profit with provision liquidity to the depositors. Various conscious efforts have been made by researchers to investigate factors that determine the quantity of liquidity holding. Sinkey and Joseph, (2013) investigated on Bank-specific and macroeconomic determinants of liquidity of English banks and assumed that the liquidity ratio as a measure of the liquidity depends on the following factors: (a) the support from central bank, (b) interest margin (c) bank profitability, (d) loan growth, where higher loan growth indicates increase in illiquid assets, size of the bank, (e) gross domestic product growth as an indicator of business cycle, and (f) short term interest rate to capture the monetary policy effect.

2.1.6 Short Term Debt

Reliance on a few wholesale depositors' increases liquidity risk. In the event of the major depositors losing confidence in bank's business operation will mean a drastic fall in liquidity and insolvency. Firms that rely more heavily on short-term liabilities are likely to be more profitable, (Christopher, Dorothea, Oleksandr 2012). Evidence in contrast shows that banks that rely more heavily on non-deposit sources of funds experience a significantly larger decline in stock returns, (Raddatz, 2010). This results in financial flimsiness while measuring default and volatility of bank stock return. However, financing of illiquid assets with sh

The basic mechanism is that given a liquidity or solvency shock, banks start to sell assets, which creates excess supply in asset markets and lowers asset prices. Banks facing urgent need for cash sell their assets at a higher discount to meet up the cash pressure and this affects banks' health.

2.1.7 Instruments for Liquidity Management

There are several measures for corporate liquidity and different ratios are more important for different stakeholders. Also, from which perspective one is examining the company's liquidity levels affects the use of different measurements. Some of the ratios are more interesting for the bank than investors and accounting measures of liquidity adds another new perspective of the liquidity. As our approach in this study is to examine the liquidity from financial management perspective, we have excluded accounting measures and concentrate on those ratios that financial managers use most often. Previous literature verified there are major differences even among the financial management field when it comes to the liquidity planning and monitoring and therefore, we have tried to include just the most commonly used formulas, and therefore the list is not extensive.

Current Ratio: One of the most common and also the oldest measure of corporate liquidity is current ratio. It was developed at the end of the 19th century in order to evaluate the credit-worthiness of the companies (Beaver, 2012). The current ratio is a liquidity ratio that measures a company's ability to pay short-term and long-term obligations. To gauge this ability, the current ratio considers the current total assets of a company (both liquid and illiquid) relative to that company's current total liabilities. The current ratio is called "current" because, unlike some other liquidity ratios, it incorporates all current assets and liabilities. In its simplicity it expresses the liquid resources available when current liabilities are met and is calculated as follows:

Current ratio = Current asset/Current Liabilities

Quick Ratio: Quick ratio or acid-test ratio is very similar to current ratio and solves the liquidation issues mentioned above by excluding inventories from calculation:

Quick ratio = Cash + Marketable Securities + Receivables/Current Liabilities

Usefulness of current and quick ratios for measuring working capital has been questioned because of their static nature. As a balance sheet is a statement of stock instead of flows with the result that ratios calculated from balance sheet accounts are liquidity stock measures at a certain point in time. In summary, current and quick ratios have been traditionally most widely used tools monitoring corporate liquidity. External users, such as banks and other credit issuers have used them as measure for evaluation companies' credit-worthiness, whereas internal users have monitored how working capital policy is executed inside the company. These are only few applications for ratios we have discussed. Usefulness of ratio analysis is questioned time to time and one has to be careful when comparing companies across industries.

Cash Ratio: The cash ratio, sometimes referred to as the cash asset ratio, is a liquidity metric that indicates a company's capacity to pay off short-term debt obligations with its cash and cash equivalents. Compared to other liquidity ratios such as the current ratio and quick ratio, the cash ratio is a stricter, more conservative measure because only cash and cash equivalents of banks' most liquid assets – are used in the calculation (Fagboyo, Adeniran & Adedeji, 2018). The cash ratio is the ratio of cash and cash equivalent to banks' current liabilities. This ratio implies the cash which the bank holds. This ratio determines the credit which can be created from the deposits. The cash ratio is a liquidity ratio that measures a company's ability to pay off short-term liabilities with highly liquid assets. Compared to the current ratio and the quick ratio, it is a more conservative measure of a company's liquidity position (Mishra & Swain, 2020).

Cash ratio = (Cash + Marketable Securities) / Current Liabilities

Cash includes legal tender (coins and currency) and demand deposits (cheques, bank drafts, etc.) Cash equivalents are assets that can be converted into cash quickly.

Loan Ratio: A loan-to-deposit ratio shows a bank's ability to cover loan losses and withdrawals by its customers (Sinarti & Rahmadany, 2018). Investors monitor the LDR of banks to make sure there's adequate liquidity to cover loans in the event of an economic downturn resulting in loan defaults. Also, the LDR helps to show how well a bank is attracting and retaining customers. The LDR helps investors spot the banks that have enough deposits on hand to lend and won't need to resort to increasing their debt. The proper LDR is a delicate balance for banks. If banks lend too much of their deposits, they might overextend themselves, particularly in an economic downturn. However, if banks lend too few of their deposits, they might have opportunity cost since their deposits would be sitting on their balance sheets earning no revenue. Banks with low LTD ratios might have lower interest income resulting in lower earnings.

Debt Ratio/Leverage: Financial leverage results from using borrowed capital as a funding source when investing to expand the firm's asset base and generate returns on risk capital (Pandey, 2015). Leverage is an investment strategy of using borrowed money specifically, the use of various financial instruments or borrowed capital to increase the potential return of an investment. Leverage is the use of debt (borrowed capital) in order to undertake an investment. The result is to multiply the potential returns from investment. A company can analyze its leverage by seeing what percent of its assets have been purchased using debt. A company can subtract the debt-to-assets ratio by 1 to find the equity-to-assets ratio. If the debt-to-assets ratio is high, a company has relied on leverage to finance its assets.

2.1.8 Profitability

Profitability is a firm’s ability and capacity to generate earnings at a rate of sales, level of assets and stock of capital in a specific period (Margaretha & Spartina, 2016). Profit is said to be generated when the income during a given period exceeds the expenses incurred over the same length of time for the sole purpose of generating income (Malik & Aqeel, 2017). The fundamental requirement is that the income and the expenses must occur during the same period and the income must be a direct consequence of the expenses. The period may be one week, three months or one year (Rufai & Onyeiwu, 2018). Bank profitability therefore is a measure of bank performance. In this study, it is proxied as return on asset (ROA).

Return On Assets: Return on assets (ROA) is an essential indicator normally employed in determining the performance of Deposit money banks. The higher the ratio, the better the profitability of banks (Harry, 2015). It is computed by dividing profit after tax by total assets. The ROA shows how banks can generate income from their assets. Notwithstanding, the ROA may be biased because of off-balance sheet activities (Samuel, 2015). However, the principally used variable for determining bank profitability is the ROA because it is not misrepresented by high equity multipliers (Saheed, 2018). The ROA is used in the analysis of profitability in this study.

2.1.9 Determinant of Deposit Money Banks Profitability

A deposit money bank is one type of bank that deals with selling basic investment instruments, receiving deposit and offering business loans. The term deposit money bank in the United State of America was used to separate it from other banks non as investment bank, since both banks had different banking regulations. Deposit money bank engages in various activities such as Issuing over draft, Banker’s cheque, Bank draft, Performance bonds, Installment loans,

EFT, RTGS, Internet and Mobile banking, Merchant banking, Cash management and treasury. A deposit money bank's profitability success depends on the competitive advantage that it has.

The internal factors occur due to decisions made by management and politics initiated at the highest level. the various internal factors are; how efficient the bank is in maintaining and controlling their operation expenses, the structure of their deposit, is it more of fixed deposit or current deposit. The external factor affecting deposit money banks profitability are inflation, interest rates and GDP growth. The effect of inflation on the bank's profit will depend with whether the inflation was unanticipated or anticipated. The economic activities of a country are measured by GDP growth. If the economic growth is high, then banks will give out more loans at higher returns and also improve their assets quality.

2.2 Theoretical Framework

2.2.1. Shiftability Theory

This theory was propounded by Moulton (1944). Shiftability theory states that the level of defensible financial institution liquidity management is having possession or investing in legal capital capable of shifting solely to other investments in obtaining liquid equipment. Loan for instance becomes secondary back up while secondary back up shifts to become primary back up. This means Shiftability theory suggests that financial institutions should give credit paid with notification before they apply for commercial paper pawn. According to this theory banks maintain liquidity if they hold assets that are marketable. During a liquidity crisis such assets are easily converted into cash. Thus, this theory contends that shiftability or marketability or transferability of bank assets is a basis for ensuring good liquidity management (Sanni, 2006). Supposing when there are no hard cash, financial institutions tend to sell pawn goods on loan aiming to obtain adequate cash. The friction happens because collateral which is illiquid turns into liquid. Besides this they also often sell marketable securities like super common stock. As a result, the shiftability theory is comprehended to give description and confidence of management of financial institutions until certain degree of removable asset possession in condition is needed to fulfill liquidity management (Rufai & Onyeiwu, 2018).

2.2.2 Liquidity Preference Theory

This theory was propounded by John Maynard Keynes (1936). According to Bibow (2005) liquidity preference theory states that people value money for both the transaction of Current business and its use as a store of wealth. Thus, they will sacrifice the ability to earn interest on money that they want to spend in the present, and that they want to have it on hand as a precaution. When interest rates increase, they become willing to hold less money for these purposes to secure a profit. Also, according to Elgar (1999), the need for money is to finance expenditure plans or is speculating on the future path of the interest rate, or, finally, because one is uncertain about what the future may have in store. So, it is advisable to hold some fraction of one's resources in the form of pure purchasing power. These motives became known as transactions, speculative and precautionary motives to demand money. The banks' liquidity preference approach suggests that banks pursue active balance sheet policies instead of passively accommodating the demand for credit. This study adopted liquidity preference theory.

2.3 Empirical Review

Malik and Aqeel (2017) conducted an investigation into the relationship between liquidity management and profitability of deposit money banks in Pakistan. Profitability was denoted by return on equity and Return on Asset, while liquidity management was proxy by current ratio, capital ratio, credit facilities and liquid assets ratio. Data were collected from the financial statements of the sampled banks in Pakistan. The study adopted an ex-post facto research design using data from the period between 2004 and 2013. The secondary data gathered were examined using correlation and regression model. The result provided evidence that Current ratio has a positive and strong impact on return on equity and Return on Asset. Furthermore, the study revealed that liquid assets ratio have a negative relationship with return on equity and Return on Asset.

Aziz *et al.* (2017) examined the effects of liquidity management on the amount of profitability of firms in Iraq. The study involved financial reports from financial institutions resident in Iraq. The study adopted a quantitative research design utilizing data from the period between 2008 and 2018. The secondary data gathered were analyzed using Simple linear regression analysis and Moderated Regression Analysis. The study showed that Capital/Risk Weighted Assets has a positive and significant impact on Return on Assets. In addition, the result also found that Assets/Shareholders Equity, Market Rate of Interest and Bank Size have a negative and significant relationship with Return on Assets.

Shrestha (2018) carried out an empirical examination on the effect of liquidity management on the measures of profitability, which was denoted by Return on Assets. Cash Reserve ratio, Credit Deposit Ratio and was adopted as proxy for liquidity management. The study used published annual reports from financial institutions based in Nepal. The study adopted a panel research design using data from the period between 2012 and 2016. The secondary data collected were examined using panel regression model. The results of the analysis suggested that Cash Reserve ratio, and Credit Deposit Ratio have a positive and substantial relationship with Return on Assets.

Sinarti and Rahmadany (2018) explored the effect of liquidity management on the size of profitability of financial institutions in Indonesia. Quick ratio was adopted as proxy for liquidity management. The study involved a survey of published annual reports from financial institutions based in Indonesia. The study adopted a panel research design utilizing data from the period between 2006 and 2019. The secondary data gathered were examined using simple regression analysis. The study revealed Quick ratio has a positive and significant impact on profitability.

Fagboyo et al. (2018) investigated the effects of liquidity management on the degree of profitability of firms listed in Nigeria. Profitability was represented by Return on Equity and Return on Assets. Quick ratio, cash ratio, liquidity coverage ratio and was adopted as proxy for liquidity management. The study used financial statement from Deposit money banks situated in Nigeria. The study adopted an ex-post facto research design utilizing data from 2007 to 2016. The secondary data sourced was analyzed using multiple linear regressions. The results indicated that quick ratio, has a positive and significant relationship with Return on Equity and Return on Assets. On the other hand, the study reveals that cash ratio; liquidity coverage ratio has a negative and

significant relationship with Return on Equity and Return on Assets. This study did cover the impact of COVID-19; therefore, current study filled the gap.

Onyekwelu *et al*. (2018) examined the effect of liquidity on financial performance of deposit money banks in Nigeria. The study sample was five (5) deposit money banks in Nigeria. Secondary data were collected from the firms for ten years' period from 2007- 2016. The data were analyzed using multiple regression analysis. Results showed that liquidity has positive and significant effect on banks' profitability ratios and recommends that the Central Bank of Nigeria should review and monitor the effectiveness of liquidity policy tools in banks and placed appropriate sanctions on erring banks to ensure effective implementation of these policy tools to achieve desired liquidity level.

Mohanty and Mehrotra (2018) examined empirically the relationship between liquidity management and profitability, which was represented by Return on Assets and Return on Equity. Cash-Deposit Ratio, Credit-Deposit Ratio and Investment-Deposit Ratio were adopted as proxies for liquidity management. The study sampled financial statements from banking sector operating in India. The study adopted a quantitative panel model using data from the period between 2011 and 2015. The secondary data collected were analyzed using panel regression model. The empirical result suggested that Cash-Deposit Ratio, and Investment- Deposit Ratio have a negative and substantial effect on Return on Assets. In addition, the findings showed that Cash-Deposit Ratio and Credit-Deposit Ratio had no significant impact on Return on Equity.

Afolabi and Williams (2019) assessed the performance of deposit money banks in Nigeria in relations to liquidity management. Data were sourced from the financial reports of fifteen (15) listed Deposit Money Banks Nigeria for the period of ten years (2009-2018). The independent variable for the study was liquidity management proxied by current ratio, cash ratio, quick ratio, capital adequacy ratio and interest coverage ratio, while returns on asset, returns on equity and earnings per share have been used as proxies for performance as dependent variable. Panel least square was used for data analysis with 5% level of significance. The result of the study revealed that liquidity management has a positive effect on the performance of Deposit money banks in Nigeria and therefore recommends that the regulators should set up board of professionals to oversee liquidity management amongst DMBs in the country, on a regular basis to avoid liquidity problem that may ruin the banks.

Mishra and Pradhan (2019) explored the effect of liquidity management on the proportion of profitability, which was denoted by Return on Assets and Return on Equity. Cash- Deposit Ratio, Credit-Deposit Ratio and Investment-Deposit Ratio was adopted as proxy for liquidity management. The study involved published annual reports from private banks based in India. The study adopted a quantitative research design utilizing data from the period between 2013 and 2017. The secondary data collected were examined using panel regression model. Results of the regression analysis displayed that Cash-Deposit Ratio, and Investment- Deposit Ratio has a negative and strong impact on Return on Assets. Furthermore, the result also found that Cash-Deposit Ratio, Credit-Deposit Ratio, and Investment-Deposit Ratio have no significant effect on Return on Equity.

Ali and Jameel (2019) carried out an empirical investigation on the effect of liquidity management on the measures of profitability of banks in Iraq. The study focused on financial reports from deposit money banks situated in Iraq. The study adopted a quantitative research

design utilizing data from the period between 2006 and 2016. The secondary data gathered were analyzed using pooled regression model. The findings showed that liquidity management has a negative and insignificant relationship with Return on Asset and Return on Equity.

Pradhan and Gautam (2019) focused on identifying the effect of liquidity management on the profitability of firms in Nepal. The study focused on financial statement from banking sector operating in Nepal. The study adopted an ex-post facto research design using data from the period between 2009 and 2015. The secondary data collected were examined using panel regression model. The results of the regression analysis suggested that capital ratio, investment ratio, cash ratio, have a positive and strong association with Return on Assets. However, the result revealed that liquid asset ratio has a negative and substantial effect on Return on Assets.

Zidan (2020) focused on providing evidence on the impact of liquidity management on the profitability of Palestinian firms. Profitability was denoted by Return on Assets. Loans to Deposits ratio was adopted as proxy for liquidity management. The study involved a survey of published annual reports from financial institutions based in Palestine. The study adopted a panel research design using data from the period between 2008 and 2017. The secondary data sourced were analyzed using panel regression model. The study revealed that Loans to Deposits ratio has a significant effect on Return on Assets.

Shaibu and Okafor (2020) investigated the impact of liquidity management on profitability of financial institutions in Nigeria. Cash ratio, cash to total asset, cash to total deposit ratio, liquid asset to total assets ratio and loan to total deposit ratio were adopted as proxy for liquidity management. The study involved financial statements from financial institutions based in Nigeria. The study adopted an ex-post facto research design utilizing data from the period between 2006 and 2016. The secondary data collected were analyzed using correlation and regression analysis. The findings showed that cash to total asset, liquid asset to total assets ratio and loan to total deposit ratio have a positive and significant association with Return on Asset. On the other hand, the findings showed liquid asset to total assets ratio has a negative and substantial impact on Return on Asset. Also, the findings showed that the relationship between cash ratio and loan to total deposit is positive but insignificant.

SECTION THREE

3.1 Research design

This study adopted *ex-post facto* research design. Ex-post facto means after the event, meaning that the events under investigation had already taken place and data already exist. The choice of ex-post facto research design is based on the fact that the study relied on historical accounting data obtained from annual reports and accounts.

3.2 Population of study

The population of this study comprised of the fourteen (14) Deposit money banks listed on the Nigerian Exchange Group as at the year 2023, encapsulated on Table 3.1.

Table 3.1: Population of the study

S/N	Name of Bank

1	Access Bank Plc.
2	Zenith Bank
3	Wema Bank Plc.
4	Unity Bank Plc.
5	United Bank for Africa Plc
6	Union Bank of Nigeria
7	Sterling Bank Plc.
8	Ecobank Plc
9	Guaranty Trust Bank Plc.
10	First City Monument Bank Plc.
11	First Bank Holdings
12	Fidelity Bank Plc.
13	Stanbic IBTC
14	Jaiz Bank Plc

Source: Nigerian Exchange Group (2024)

3.3 Sample size and sampling techniques

The purposive sampling technique was adopted for this study. Consequently, Ecobank was excluded due to the fact that its financial statements are presented in foreign currency, this would create translation problem. Other deposit money banks (Zenith bank, Wema bank, Unity bank, UBA bank, Union bank, Sterling bank, First bank, Fidelity bank and Stanbic bank) with no relevant data on the Nigerian Exchange Group for period are excluded. Thus, the sample size was 10 deposit money banks for the period of 2013 to 2022.

3.4 Measurement of variables

The variables of the study are explained in this section of the study.

Table 3.2: Dependent and Independent Variables

S/N	Variables	Types	Definition	*Apiori* Expectation
1.	Return of Asset	Dependent	Return on assets	
2.	Current ratio	Independent	Current Assets/ Current Liabilities	Positive
3	Cash Ratio	Independent	(Cash + Marketable Securities)/Current Liabilities	Positive
4	Debt- Assets Ratio	Independent	Total Liabilities/Total Assets	Negative

Source: Researcher's Compilation (2024)

3.6 Empirical specification of model

The model developed for this study are:

ROA = f (CR, CASR, DAR)

$ROA = \beta + b1CR_{i,t} + \varepsilon$ 3.1

$ROA = \beta + b2CASR_{i,t} + \varepsilon$ 3.2

$ROA = \beta + b3DAR_{i,t} + \varepsilon$ 3.3

Where: ROA = Return of Asset, CR = Current Ratio, CASR= Cash Ratio, DAR = Debt-Assets Ratio, ε = Error Term, β = Constant, b1 b3 = Coefficients.

3.7 Method of data analysis

Descriptive statistics and linear regression analysis was adopted as the data analysis technique of this study. Descriptive statistics include mean, minimum, maximum, skewness, kurtosis and standard deviation. Regression analysis was used to analyze the model specified in the study. The decision rule states that the null hypothesis will be rejected if the p-value is less than 0.05 and also if the calculated F statistics is less than the critical value of F at the degree of freedom of n-k-1.

SECTION FOUR

DATA PRESENTATION, TEST OF HYPOTHESIS AND INTERPRETATION

4.1 Data presentation

The data required for the study were profit for the year, total liabilities, current liabilities, current assets, total assets, gross earnings, number of board members of the various deposit money banks in Nigeria. The data set covered the period 2013 to 2022. These data were used to compute the variables of the study. The raw data as extracted from annual reports of the selected banks are presented in the appendix B of the study.

4.1.2 Descriptive Statistics

The descriptive statistic of the study was carried out and the result shows in Table 4.1. The various descriptive statistics include the mean, minimum, maximum and standard deviation.

Table 4.1 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Return of Asset (%)	60	-2.19	7.07	1.99	1.69
Current Ratio	60	.49	3.97	1.46	.62
Cash Ratio	60	24.47	223.39	50.37	31.69
Debts-to-Assets Ratio	60	28.94	229.65	83.41	25.94
Valid N (list wise)	60				

Source: Researcher's Computation (2024)

It is recorded in Table 4.1, that the minimum profitability measured by return on assets of the selected deposit money banks was -2.19% while the maximum value was 7.7%. The result also showed that the average profitability was 1.99%. The standard deviation of profitability was 1.69%.

It is presented in Table 4.1, that the minimum current ratio of the selected the deposit money banks was 0.49:2 while the maximum value was 3.97: 2. The result also showed that the average current ratio was 1.46:2. The standard deviation of current ratio was 0.62:2.

It is presented in Table 4.1, that the minimum cash ratio of the selected the deposit money banks was 24.47% while the maximum value was 223.39%. The result also showed that the average cash ratio was 50.37%. The standard deviation of cash ratio was 31.69%.

It is presented in Table 4.1, that the minimum debts-to-assets ratio of the selected the Deposit money banks was 28.94% while the maximum value was 229.65%. The result also showed that the average debts-to-assets ratio was 83.41%. The standard deviation of debt-to- assets ratio was 25.94%.

4.2 Test of hypotheses

Hypothesis One

Ho_1: There is no significant effect of current ratio on return of asset of Deposit money banks in Nigeria

Table 4.2: Model Summary[a]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.285a	.081	.065	1.640331899458642	1.761

ANOVAa

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	13.812	1	13.812	5.133	.027b
	Residual	156.060	58	2.691		
	Total	169.872	59			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.136	.547		5.737	.000		
	CR	-.780	.344	-.285	-2.266	.027	1.000	1.000

a**. Dependent Variable: ROA**

Source: Researcher's Computation (2024)

The model summary in Table 4.2 shows that the model has an R-squared value of 0.81 which indicates that 8.1% of the variance in return of asset is explained by current ratio. The result shows that the regression model is significant ($F = 5.133$, $p < 0.05$), indicating that the independent variable, current ratio, has a significant effect on the dependent variable, profitability. Base on this finding and the decision rule of the study, we reject the null hypothesis one which states that there is no significant effect of current ratio on return of asset of listed deposit Banks in Nigeria. This implies that there is a significant effect of current ratio on return of asset of deposit money banks in Nigeria.

Hypothesis Two

Ho_2: There is no significant effect of cash ratio on return of asset of deposit money banks in Nigeria.

Table 4.3 Model Summaryb

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	DurbinWatson
1	.345a	.119	.104	1.606161546282596	.715

ANOVAa

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	20.246	1	20.246	7.848	.007[b]
	Residual	149.626	58	2.580		
	Total	169.872	59			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.925	.392		7.468	.000		
	CASH R	.018	.007	.345	2.801	.007	1.000	1.000

a. Dependent Variable: ROA

Source: Researcher's Computation (2024)

The model summary in Table 4.3 shows that the model has an R-squared value of 0.119 which indicates that 11.9% of the variance in return of asset is explained by cash ratio. The result shows that the regression model is significant ($F = 7.848$, $p < 0.05$), indicating that the independent variable, cash ratio, has a significant effect on the dependent variable, profitability. Base on this finding and the decision rule of the study, we reject the null hypothesis two which states that there is no significant effect of cash ratio on return of asset of Deposit money banks in Nigeria. This implies that there is a significant effect of cash ratio on return of asset of Deposit money banks in Nigeria.

Hypothesis Three

Ho_3: There is no significant effect of debt ratio on return of asset of deposit money banks in Nigeria

Table 4.4 Model Summary[a]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	DurbinWatson
1	.180a	.032	.016	1.683542288972971	1.771

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	5.481	1	5.481	1.934	.170b
	Residual	164.390	58	2.834		
	Total	169.872	59			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.014	.738		1.375	.174		
	DR	.012	.008	.180	1.391	.170	1.000	1.000

a. Dependent Variable: ROA

Source: Researcher's Computation (2024)

The model summary in Table 4.4 shows that the model has an R-squared value of 0.032 which indicates that 3.2% of the variance in return of asset is explained by debts-to-assets ratio. The result shows that the regression model is insignificant ($F = 1.934$, $p>0.05$), indicating that the independent variable, debt-to-assets ratio, has no significant effect on the dependent variable, return of asset. Base on this finding and the decision rule of the study, we accept the null hypothesis three which states that there is no significant effect of debt to assets ratio on return of asset of deposit money banks in Nigeria. This implies that there is no significant effect of debt-to-assets ratio on return of asset of deposit money banks in Nigeria.

4.3 Discussion of findings

Ho_1: Current Ratio and Return of Assets of Deposit money banks

The result of the analysis presented in Table 4.2 showed an R-square and Adjusted R- square value of 0.081 and 0.065 respectively. The implication of this result is that 8.1% of the changes in return on asset of deposit money banks is influenced by current ratio. The beta-value of 0.285 showed that there is a negative relationship between current ratio and financial performance of deposit money banks in Nigeria. The result was statistically significant because p-value reported was 0.027 which is less than 0.05. This finding was in line with the findings of Malik and Aqeel (2017) conducted an investigation into the relationship between liquidity management and profitability of deposit money banks in Pakistan. The result provided evidence that Current ratio has a positive and strong impact on return on equity and Return on Asset.

Ho_2: Cash Ratio and Return on Assets of Deposit money banks

The result of the analysis presented in Table 4.3 showed a beta coefficient of 0.345. The implication of this result is that 34.5% of the changes in return on asset of deposit money banks is influenced by cash ratio. The R-value of 0.119 showed that there is a positive relationship between cash ratio and return on asset of deposit money banks in Nigeria. The result was statistically significant because p-value reported was 0.007 which is less than 0.05. This finding was in line with the findings of Mishra and Swain (2020) who investigated empirical evidence for the predicted relationship between liquidity management and the measures of profitability in India. The study's findings revealed that Cash Deposit Ratio, Cash Deposit Ratio, Investment Deposit Ratio, Term Loans to Total Advances and Savings Bank Deposit to Total Deposits have a strong effect on Return on Asset and Return on Equity.

Ho_3: Debt-to-Assets Ratio and Return on Assets of Deposit money banks

The result of the analysis presented in Table 4.4 showed an R-square and Adjusted R- square value of 0.032 and 0.016 respectively. The implication of this result is that 3.2% of the changes in return on asset of deposit money banks is influenced by debt to assets ratio. The R- value of 0.032 showed that there is a positive relationship between debt to assets ratio and return on asset of deposit money banks in Nigeria. The result was statistically non-significant because p-value reported was 0.170 which is greater than 0.05. This finding was in line with the finding of

Mohanty and Mehrotra (2018) who examined empirically the relationship between liquidity management and profitability, which was represented by Return on Assets and Return on Equity.

SECTION FIVE
SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of findings

The study focused on the liquidity management and profitability of Deposit money banks in Nigeria. The following were the major findings of the study:

a) There is a significant effect of current ratio on the return on assets of banks in Nigeria.
b) There is a significant effect of cash ratio on the return on assets of banks in Nigeria
c) There is a non-significant effect of debt-to-assets ratio on the return on assets of banks in Nigeria

5.2 Conclusion

Based on the findings of the study, it can be concluded that liquidity management significantly affects the profitability of banks. However, based on the result of the analysis, the debt to assets ratio had a non-significant effect on the profitability of banks in Nigeria.

5.3 Recommendations

The following recommendations were raised;

a) The management of the Deposit money banks should maintain an equilibrium in the management of their current ratio. This would assist in the improvement of their return on assets as a higher current ratio would lead to more profit for the bank as well as boosting of the depositor's confidence in the banks.
b) The management of Deposit money banks should strike a balance in the management of its cash level, because an increase in the cash ratio would increase the return on assets of the banks.
c) The debt to assets ratio did not influence the return on assets of banks significantly.
d) This requires that the banks should continue to review the quality of its assets and risk on its debts.

5.4 Contribution to Knowledge

This study provided empirical evidence on the positive effects of liquidity management on profitability, Current ratio, Cash Ratio and Debt to assets Ratio. These findings highlight the importance of liquidity management in deposit money banks and emphasize the value and impact on Return on Assets and Return of Equity in banks. By implementing the recommendations, the management of the Deposit money banks should maintain an equilibrium in the management of their current ratio, strike a balance in the management of its cash level and banks should continue to review the quality of its assets and risk on its debts.

5.5 Suggestion for further studies

This study focused on the liquidity management and profitability of deposit money banks in Nigeria. A further study should focus on other sectors of the Nigerian economy such as the financial sector, the ICT sector, etc. Also, further research could explore more on specific measures of liquidity management that could influence profitability and investigate any potential differences in the sectors studied.

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