### LIQUIDITY MANAGEMENT IN BANKS: A STUDY OF SELECTED COMMERCIAL BANKS IN NIGERIA (2000-2009)

**TITLE PAGE**

Certification

Dedication

Acknowledgement

Table of Content

List of Tables

**ABSTRACT**

**CHAPTER ONE: INTRODUCTION**

1.1 Background of the study

1.2 Statement of the problem

1.3 Objective of the study

1.4 Research Questions

1.5 Significance of the study

1.6 Scope of the study

1.7 Limitation of the study

1.8 Definition of terms

**CHAPTER TWO: REVIEW OF LITERATURE**

2.1 Conceptual Framework

2.2 Theoretical Framework

**CHAPTER THREE: RESEARCH METHODOLOGY**

3.1 Introduction

3.2 Research Design

3.3 Population of the study

3.4 Sample size determination

3.5 Sample size selection technique and procedure

3.6 Research Instrument and Administration

3.7 Method of data collection

3.8 Method of data analysis

3.9 Validity of the study

3.10 Reliability of the study

3.11 Ethical consideration

**CHAPTER THREE: RESEARCH METHODOLOGY**

3.1 Introduction

3.2 Research Design

3.3 Population of the study

3.4 Sample size determination

3.5 Sample size selection technique and procedure

3.6 Research Instrument and Administration

3.7 Method of data collection

3.8 Method of data analysis

3.9 Validity of the study

3.10 Reliability of the study

3.11 Ethical consideration

**CHAPTER FOUR: DATA PRESENTATION AND ANALYSIS**

4.1 Data Presentation

4.2 Descriptive Analysis

4.3 Inferential Statistics

**CHAPTERFIVE: SUMMARY, CONCLUSION & RECOMENDATION**

5.1 Summary

5.2 Conclusion

5.3 Recommendation

References

Appendix

****ABSTRACT****

*This study sought to examine the challenges of Liquidity Management in Nigeria’s Commercial banks. The study identified some of the notorious factors responsible for most banks’ liquidity problems such as high ratio of Non-performing loans (NPL), excessive risks concentration, fluctuations in statutory Reserve requirements; Assets mismatch in portfolio selection, and Poor Corporate Governance. In order to tackle the magnitude of the problems, the researcher limited the scope of the study to ten year period (2000-2009) in First Bank, Access Bank and United bank for Africa PLC and established three specific objectives and related research questions to guide the study. The secondary data generated from the Financial Statements Reports and Accounts of the selected banks as well as the Central Bank of Nigeria (CBN) reports for the period was used to test and analyze the three hypotheses, based on the stated objectives and the related research questions, using a Parametric statistical sample paired t- test model and Pearson’s Correlation coefficient as the statistical tools. Based on the research findings, it was recommended among others that banks should strengthen their institutional capacity, exercise prudence in credit administration and avoid excessive risk exposure.CBN should also re-appraise the existing corporate governance code necessary and also embrace more pro-active mechanisms in the discharge of their oversight functions for sustainable banking sector liquidity, public confidence, safety and professionalism in banking practice.*

**CHAPTER ONE**

**INTRODUCTION**

**1.1 Background of the study**

The whole concept of banking is built upon confidence in the liquidity of the bank. Liquidity management is critical in the banking operations. Customers place their deposits with a bank, confident that they can withdraw the deposit when they wish. If the ability of the bank to pay out on demand is questioned, all its business may be lost overnight. Generally speaking, liquidity refers broadly to the ability to trade instruments quickly at prices that are reasonable in the light of the underlying demand/supply conditions through depth, breath and resilience of the market at the lowest possible execution cost. A perfectly liquid asset is defined as one whose full present value can be realized, i.e. turned into purchasing power over goods or services. Cash is perfectly liquid, and so for practical purposes are demand deposits and other deposits transferable to third parties by cheques and investments in short-term liquid government securities. Adequate liquidity enables a bank to meet cash withdrawal commitments when due, undertake new transactions when desirable, and discharge other statutory obligations as they arise. Liquidity is the term that best describes the ability of a bank to satisfy the demand for cash in exchange for deposits. The most important aspect of liquidity function in banks is that it helps to sustain the confidence of the depositors, who should not be given any cause to doubt the safety, solvency and viability of the bank. A bank is considered liquid when it has sufficient cash and other liquid assets to off-set its obligations readily or assets to sell at short time notice, without loss in value.

Bank’s liquidity can also be measured by its ability to raise funds quickly from the other sources such as money markets to enable it honour maturing/payment obligations, and commitments without notice. Banks are statutorily required to comply with the legal cash and liquidity ratios reserve requirements so as to cope with the demands of its financial obligations owed to its customers and other stakeholders.

However, the level of liquidity to hold and in what forms to preserve them pose serious task to the bank management. The majority of banking transactions can be anticipated in advance from the expected cash flows, deposits and earnings from loan repayments. Banking business is associated with elements of risks and for which no adequate provisions are often made to accommodate any obvious shortfalls, arising from the defaults on loan repayments.

It is for this reason that this study seeks to examine the need for keeping adequate liquidity to serve as a ‘buffer’ to cushion the effects of deposits fluctuations and compensate for the gap during periods of emergency.

Basically, liquidity management seeks to strike a delicate balance between the need to maintain sufficient liquidity to meet depositors’ cash calls. Illiquidity jeopardizes ability to service customers’ withdrawal demands while excess liquidity erodes the earning capacity and profit performance of the banks. Liquidity Management therefore appears more crucial than any other aspects of bank management like bank marketing, because negative signals of illiquidity in a bank cannot be hidden for too long.

In Nigeria, the activities of the commercial banks are subjected to the extensive prudential regulations under Banks and Other Financial Institutions Act 1991 (BOFIA). The essence of these regulations is to maintain trust, stability and public confidence in the banking system. The commercial banks in Nigeria are mandated to keep certain percentage of their cash as legal reserve. Experience in Nigeria has shown that most commercial Banks run into problems of illiquidity because of assets mismatch, excessive risks concentration on portfolio investments, massive fraud and other insider -related abuses.

Given the above explanations, it therefore becomes imperative that a commercial bank that is profit –oriented should remain focused, prudent and pro-active in liquidity management for a sustainable service delivery. In all, the crux of liquidity management issues is for the banks’ management to strive at all times in creating a right equilibrium and adequate liquidity level, suitable for a healthy banking sector performance. The importance of liquidity therefore transcends the individual institution, since any negative impact of liquidity shortfall in First Bank, Access Bank and United Bank for Nigeria (UBA), under research study may invoke systemic repercussion, causing harm to the whole financial stability of a country.

**1.2 Statement of the problem**

The importance of the banking sector in the growth of a nation’s economy cannot be over-emphasized. It is therefore imperative for the authorities in the sector to guard their financial system seriously against any anticipated liquidity crisis. It is a common knowledge that all commercial banks continuously strive towards high profitability to sustain its continued existence and maximize shareholders wealth. Some of the problems identified ranges from; exposure to excessive risk concentration on investments which often result to capital erosion and liquidity trap, assets mismatch on portfolio selection that attract negative or no returns to the bank’s liquidity net, Poor credit administration, leading to problems of Non-performing loans, bad debts, or classified debts which mostly end up as irrecoverable, poor ownership structure of some commercial banks and appointment of mediocre to the board/management of banks, Poor Corporate Governance and regulatory lapses in the discharge of bank’s oversight- sight functions.

· Massive workers retrenchment due to low profit earnings and poor patronage in banking transactions.

Evidence in the past revealed that most Nigerian commercial banks were driven into liquidity problems, owing to exposure to excessive risks concentration and poor assets mismatch in portfolio selection. Added to this problem were the effects of other factors such as massive defaults on loan repayments by borrowers, poor ownership structure of banks, appointment of mediocres as board members who exert political influence on banking matters, financial frauds through margin loans and insider-abuses and poor supervisory/regulatory oversight and absence of strict corporate governance practices. These factors pronounced negative consequences that pose serious challenges to the liquidity management of banks. Given the above ugly scenario, most commercial banks in Nigeria began to record poor net-income earnings and also experienced low level patronage in banking transactions. Consequently, massive retrenchment of bank workers ensued and the displaced workers miserably joined the labour market which is already saturated with unemployment problems.

**1.3 Objective of the study**

The main objective of the research is to examine the effects of liquidity on the selected commercial banks like Access bank and First bank operating in Nigeria. Specifically the study sought:

1. To examine the extent to which Non-performing loans influence Commercial banks’ liquidity.
2. To ascertain the extent to which fluctuations in commercial bank’s liquidity levels affect its profitability.
3. To establish the extent to which statutory reserve requirements influence commercial bank’s liquidity position.

**1.4 Research Hypothesis**

Considering the problems and objectives highlighted above, the following hypotheses were formulated for the purpose of this research study

**HO:** Non-performing loan does not negatively affect commercial bank’s Liquidity.

**HI**: Non-performing loan significantly effect commercial Bank’s Liquidity.

**HO**: Changes in the liquidity levels of a Commercial bank do not negatively affect its profitability.

**HI:** Changes in the liquidity levels of a commercial bank

significantly affect its profitability.

**HO:** Changes in bank’s Statutory Reserve Requirements do not negatively affect its liquidity.

**HI:** Changes in bank’s Statutory Reserve Requirements have significant effect on its liquidity position.

**1.6 Significance of the study**

This study is coming at a time when the banking sector is passing through a stage of serious banking sector reforms as a result of the negative consequences inflicted by the problems of illiquidity. The study will therefore be of importance to various stakeholders in the banking sector, particularly the operators of banks, depositors, fund borrowers, regulatory authorities and even the general public at large. The tudy would educate funds borrowers on the negative implications of loans repayment defaults as it affects commercial bank’s liquidity. t will bring to light the extent of unethical sharp practices inherent in the banking sub-sector. The study would educate funds borrowers on the negative implications of defaults loan repayment, as it affects banks’ liquidity to cope with maturing obligations as they fall due. To the academia, it would contribute meaningfully as a reference material for further academic development. **1.7 Scope of the study**

The scope of the study borders on the effects of liquidity on the selected commercial banks. This study was restricted to the period of 2000-2009 and carried out in the selected Access and Firstbank situated in Enugu metropolis.

**1.8 Limitation of the study**

Generally, academic research in developing economies like Nigeria faces environmental problems. In course of this study, the major constraint encountered by the researcher was the inability to have unimpeded access to the selected banks for information and data collection from the Financial Statements Reports relative to the study. Other limiting factor was the bureaucratic process for access to Central Bank of Nigeria (CBN) library that remained foreclosed to non- staff. The removal of government’s fuel subsidy which increased the cost of transportation hampered the researcher’s mobility to achieve wider research coverage earlier anticipated. The limited time-frame allowed for this research work also posed a serious challenge to the researcher’s efforts.

**CHAPTER TWO**

**LITERATURE REVIEW**

**2.0 INTRODUCTION**

Our focus in this chapter is to critically examine relevant literatures that would assist in explaining the research problem and furthermore recognize the efforts of scholars who had previously contributed immensely to similar research. The chapter intends to deepen the understanding of the study and close the perceived gaps.

**2.1 CONCEPTUAL FRAMEWORK**

**LIQUIDITY**

Liquidity is the ability of a bank to fund increases in assets and meet obligations as they come due, without incurring unacceptable losses while effective liquidity risk management helps ensure a bank's ability to meet cash flow obligations, which are uncertain as they are affected by external events and another agents' behavior. Liquidity risk management is of paramount importance because a liquidity shortfall at a single institution can have system-wide repercussions (BCBS, 2008).In carrying out the role of financial intermediation especially as it relates to maturity transformation of short-term deposits into long-term loans, banks are inherently exposed to liquidity risk both at an idiosyncratic (institution-specific) level or system-wide. Anyanwu, (2003) posits that liquidity shortage, no matter how small, can cause unimaginable disruption to a financial institution’s operations and customer’s relationship. Every business relies on its customers to succeed, therefore managing good customer relationships is key and should be incorporated into its strategic planning process. Liquidity crisis, if not properly managed can result to reputational risk including bad press releases against the institution and could destroy customer’s relationships built over the years. In order to avoid this, it is thus imperative that the managers of businesses and financial institutions should have a well-defined business policy and established procedures for measuring, monitoring, and managing liquidity. Managing liquidity is therefore a core daily process requiring institutions to monitor and project cash flows to ensure that adequate liquidity is always maintained to meet their obligations as they arise. The provision of maintaining adequate liquidity always to meets customer’s obligation is an essential feature of banking. Therefore, banks must ensure that adequate provision of cash and other near cash securities are made available to meet daily withdrawals obligations and new loan demands by customers in need of liquidity. It is in this regard that banks in Nigeria are statutorily required to comply with the Cash Reserve Requirement (CRR) policy of the Central Bank of Nigeria (CBN) as well as other regulatory measures of effectively managing their liquidity positions.

The term liquidity is often used in multiple contexts. An asset’s liquidity can be used to describe how quickly, easily and costly it is to convert that asset into cash (Berger & Bouwman, 2008). Liquidity can also be used to describe a company by the amount of cash or near cash assets a company has; the more liquid assets, the higher a company’s liquidity. Financial ratios that measure liquidity are referred to as a company’s liquidity ratios. One such ratio is the current ratio which determines a company’s ability to pay short term debts as they come due (Van Ness, 2009). Liquidity risk has many definitions but the one that can be derived from the ratio is the probability that a company will not be able to pay its short term obligations as they come due. This inability can lead a company to face serious financial problems. In addition to this, liquidity risk can also be defined in terms of the counterparty to a transaction. In this sense the term means the risk inherent in the fact that the counterparty may not be able to pay or settle the transaction even if they are in good financial standing, because of a lack of liquidity (Petria & Petria, 2009).

**LIQUIDITY RISK**

Liquidity is the ability of a firm, company, or even an individual to pay its debts without suffering catastrophic losses. Conversely, liquidity risk stems from the lack of marketability of an investment that can't be bought or sold quickly enough to prevent or minimize a loss. It is typically reflected in unusually wide bid-ask spreads or large price movements. Liquidity risk occurs when an individual investor, business, or financial institution cannot meet its short-term debt obligations. The investor or entity might be unable to convert an asset into cash without giving up capital and income due to a lack of buyers or an inefficient market. Financial institutions depend upon borrowed money to a considerable extent, so they're commonly scrutinized to determine whether they can meet their debt obligations without realizing great losses, which could be catastrophic. Institutions, therefore, face strict compliance requirements and stress tests to measure their financial stability. The Federal Deposit Insurance Corporation (FDIC) released a proposal in April 2016 that created a net stable funding ratio. It was intended to help increase banks’ liquidity during periods of financial stress. The ratio indicates whether banks own enough high-quality assets that can be easily converted into cash within one year. Banks rely less on short-term funding, which tends to be more volatile.

Liquidity risk arises from situations in which a party interested in trading an asset cannot do it because nobody in the market wants to trade for that asset. Liquidity risk becomes particularly important to parties who are about to hold or currently hold an asset, since it affects their ability to trade.

Manifestation of liquidity risk is very different from a drop of price to zero. In case of a drop of an asset's price to zero, the market is saying that the asset is worthless. However, if one party cannot find another party interested in trading the asset, this can potentially be only a problem of the market participants with finding each other.[2] This is why liquidity risk is usually found to be higher in emerging markets or low-volume markets. Liquidity risk is financial risk due to uncertain liquidity. An institution might lose liquidity if its credit rating falls, it experiences sudden unexpected cash outflows, or some other event causes counterparties to avoid trading with or lending to the institution. A firm is also exposed to liquidity risk if markets on which it depends are subject to loss of liquidity.

Market and funding liquidity risks compound each other as it is difficult to sell when other investors face funding problems and it is difficult to get funding when the collateral is hard to sell.Liquidity risk also tends to compound other risks. If a trading organization has a position in an illiquid asset, its limited ability to liquidate that position at short notice will compound its market risk. Suppose a firm has offsetting cash flows with two different counterparties on a given day. If the counterparty that owes it a payment defaults, the firm will have to raise cash from other sources to make its payment. Should it be unable to do so, it too will default. Here, liquidity risk is compounding credit risk.

**POOR CORPORATE GOVERNANCE ISSUES AND EFFECTS ON BANKING SECTOR LIQUIDITY**

Governance in banking dramatically changed in the 1990s because of significant changes of ownership which emanated from mergers and acquisitions (Arouri et al., 2011). The recent financial crisis that affected most of the developed countries originated from America before spreading to other countries. This was because of the financial interconnectivities of financial institutions. The chief cause of the subprime mortgages that lead to the financial crisis was because of excessive risk taking. Excessive risk-taking hinges on agency problem. Transparency and disclosure of information are considered to be an essential element of corporate governance (Henry, 2008). Disclosure include many aspects such as board and management structure disclosure, ownership structure disclosure and financial transparency and information disclosure. The management of these companies was involved in dubious, questionable and fraudulent accounting practices and their boards could not detect them on time. Fraud, mismanagement and poor monitoring of agents‟ activities resulted to lack of transparency and accountability making these top companies vulnerable to failures. This led to the creation of regulatory corporate governance reports and codes; these were introduced to set regulations that could ensure effective governance and to improve on the financial performance of these firms. Wilson (2006) noted that poor corporate governance can lead market to lose confidence in the inability of a bank to properly manage it assets and liability, including deposits which could in turn trigger a bank liquidity crisis. The strength of the corporate governance mechanism in a financial establishment determines the system‟s vulnerability to uncertainties and eventual risks; the reason why some institutions fail, and others succeed.

**THE NEED FOR LIQUIDITY MANAGEMENT AND BANKING SECTOR SOLVENCY**

Liquidity management issues in Nigerian commercial banks have been a matter of serious concern and challenge to bank management over the years. Some watchful commentators on events in the banking scene often accuse the banks of stifling the economy by inefficient allocation of their highly liquid assets, while others expressed the view that assets mismatch, excessive and risky lending activities, poor regulatory oversight and absence of corporate governance were part of the notorious factors responsible for most banks’ liquidity problems. It is on this score that some explanations have been put forward to describe liquidity simply as a ‘firm’s cash position and its ability to meet maturing obligations

Many doctrines have provided the basis for the arguments, aimed at establishing the theories in the management of bank liquidity. The theory of bank liquidity is predicted on two approaches. The first approach of the doctrine which is assets – based, emphasizes that bank liquidity should concentrate on the composition of quality assets that can easily attract high market value.

Managing liquidity is a fundamental component in the safe and sound management of all financial institutions. Sound liquidity management involves prudentially managing assets and liabilities, minding both the cash flow and concentration in order to ensure that cash inflows have an appropriate relationship to cash outflows. This needs to be supported by a process of liquidity planning which assesses potential future liquidity needs, taking into account changes in economic, regulatory or other operating conditions.

Liquidity management takes one of two forms based on the definition of liquidity. One type of liquidity refers to the ability to trade an asset, such as a stock or bond, at its current price. The other definition of liquidity applies to large organizations, such as financial institutions. Banks are often evaluated on their liquidity, or their ability to meet cash and collateral obligations without incurring substantial losses. In either case, liquidity management describes the effort of investors or managers to reduce liquidity risk exposure..

Kumar (2008) posits that management of liquidity risks is fundamental to bank business as every transaction or commitment has implications for its liquidity. Similarly, Nwaezeaku (2008) 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). According to Choudhry (2011) liquidity management refers to the funding of deficits and investment of surpluses, managing and growing the balance sheet, as well as ensuring that the bank operates within regulatory and stipulated limits.

The importance of an effective liquidity management in the banking industry and financial markets cannot be overemphasized. The relevance of liquidity management became pronounced during the 2007-2008 global financial crisis when the banking industry came under severe liquidity strain and stress. During the crisis, it was apparent that liquidity can evaporate like a mirage, but illiquidity can last for an unforeseen or longer period than anticipated.

**EFFECTS OF POOR BANKING SUPERVISION AND REGULATORY LAPSES ON BANKS’ LIQUIDITY MANAGEMENT**

The studies carried out in the past revealed that most commercial banks were thrown into financial crisis, resulting to threat of insolvency, distress owing to the problems of illiquidity. This virtually crippled banking sector performance in the discharge of banks obligations to the stakeholders. In realization of this, the Central Bank of Nigeria (CBN) has through its prudential reforms and oversight functions, made it mandatory for all the licensed banks to comply with the statutory cash and liquidity ratios and other regulatory requirements to ensure adequate liquidity balances to enable the commercial banks to meet the challenges of deposit liabilities and other obligations.

Significantly, prudential reforms and increased oversight function by the banks’ regulatory authorities are primarily aimed at sustaining public confidence and minimize the threat of insolvency, distress or failure that has presently characterized the operations of the banking sector. It is therefore, on the above theoretical framework and direction that the entire literature will be based.

The importance of liquidity management in any organization is based on the nature of the business and its operations. Liquidity Management pattern varies from one organization to another because of the differences in the definition of assets and the economy under which it is applied.

Liquidity constitutes the primary line of defence of banks against the anticipated and unanticipated funds withdrawal demands of customers. The maintenance of adequate liquidity therefore represents a virtue which bank regulators endeavour to cultivate and instill on the banking system. There is a short, as well as the long – term dimensions to the liquidity concerns of banks. Short-term liquidity depends on the maintenance of adequate level of cash and liquid assets, relative to customers withdrawal needs. In the long –term, bank’s liquidity is a measure of its solvency in redeeming its conflicting obligations from the value of its realizable assets (monetized assets). In doing so, banks must structure their asset portfolio so that the pattern of asset returns can support the short-term obligations that they issue.

**MEASUREMENT AND GOVERNANCE OF LIQUIDITY RISK**

The financial crisis has shed a new light on the perceived obstacles mentioned above. As described in the preamble of the Delegated Regulation (European Commission 2015): “During the early ‘liquidity phase’ of the financial crisis that began in 2007, many credit institutions, despite maintaining adequate capital levels, experienced significant difficulties because they had failed to manage their liquidity risk prudently. Some credit institutions became overly dependent on short term financing which rapidly dried up at the onset of the crisis. Such credit institutions then became vulnerable to liquidity demands because they were not holding a sufficient volume of liquid assets to meet demands to withdraw funds (outflows) during the stressed period. Credit institutions were then forced to liquidate assets in a fire-sale which created a self-reinforcing downward price spiral and lack of market confidence triggering a solvency crisis. Ultimately many credit institutions became excessively dependent on liquidity provision by the central banks and had to be bailed out by the injection of massive amount of funds from the public purse. Thus it became apparent that it was necessary to develop a detailed liquidity coverage requirement whose aim should be to avoid this risk by making credit institutions less dependent on short-term financing and central bank liquidity provision and more resilient to sudden liquidity shocks.” As Bonner and Hilbers (2015) state, “The 2007-08 financial crisis showed how quickly liquidity can evaporate and how rapidly even well capitalized banks can lose their access to funding markets.” Liquidity risk and lapses in liquidity risk management were key factors leading to the outbreak of this crisis and especially its rapid expansion. The financial crisis also showed that capital regulation does not (fully) mitigate liquidity risks, capital and liquidity requirements are not substitutes but complements. According to EBA (2013) liquidity regulation was (together with capital regulation) also expected to improve the soundness of the banking sector. It was perceived to protect against bank runs and potential losses from fire sales of assets because of the liquidity buffer and also support bank solvency. Defining what the buffer could consist of, the High Quality Liquid assets (HQLA), is also perceived as beneficial by EBA because it bolsters confidence within the sector by reducing uncertainty about what buffers a bank has. This was expected to lead to reduced funding costs. As a final benefit, EBA mentions reduced interconnectivity between banks in the banking system, which is beneficial in case of resolution or restructuring (EBA 2013). The floor for liquidity risk contributes to avoiding excessive loan growth and therefore helps to reduce the underlying growth factors for another possible bubble or financial crisis (EBA 2013).

**THE LIQUIDITY AND PROFITABILITY CONTROVERSY**

Banking Profitability may also show managers attitude toward risk. Banks that make huge profits are not scared when venturing into risky activities. Profitability measure is important to the investors. The level of profitability is very significant for the shareholders of a bank, because it shows how effective managements have utilized their investments (Devinaga, 2010). In ascertaining the financial potency of a deposit money bank, the level of profitability is predominant. Codjia (2010) viewed that banks profitability performance will concentrate on the income statement which shows how much banks generated (revenue) and how much banks spent (expenses) net income. In contract to Rushdi and Tennant (2003) profitability can be evaluated in a number of ways. Which include Return on Assets (ROA), Return on Equity (ROE). But over the years, most researchers prefer using Return on Assets (ROA). Similar to Godlewski (2004) used ROA in measuring profitability. It was disclosed that; the performance of a bank was negatively affected by the level of non-performing ratio. In theory, ROA shows the strength of a bank’s management to make profits using the level of assets available. It may be unfair because of the other events that take place outside the statement of financial position (Athanasoglou,2005). Banking Profitability may also show managers attitude toward risk. Banks that make huge profits are not scared when venturing into risky activities. In a similar fashion, banks that are not effective in their management encounter higher bad debt. Profitability measure is important to the investors. The level of profitability is very significant for shareholders of a bank because it shows how effective management has utilized their investments (Devinaga, 2010). In determining the financial strength of a deposit money bank, the level of profitability is predominant. ROA and ROE are used as main profitability measures in most of the organizations including banks and financial institutions.

Liquidity and profitability are issues of deep concern to every commercial bank in Nigeria and other nations of the world. Several eminent scholars have expressed opinions on the subject of liquidity management in different scenarios and its effects on the operations of commercial banks.

The profitability of firm depends on several factors such as government policy, political activities, and competitive position of the firm in the industry. It is therefore not necessarily appropriate to assess managerial efficiency solely and absolutely in terms of success rate. Essentially, managerial efficiency is measured by performance and expense control ratios. An owner of a property or cash deposited and placed on trust in a bank, credit instruments or other payables has the right to demand it when he decides to have it back.

There, the real test of management efficiency in this regard is the promptitude in satisfying depositors, without recourse to external relief for cash bail-out. To achieve that, it becomes imperative that bank’s management may choose to maintain a higher level of Cash-to-Deposit ratio in the bank’s vault which will be immediately available to settle bank’s liabilities and other commitments without unnecessary panicking for rescue.

In the context of finance in general and banking in particular, liquidity management is a test of the ease with which assets can be converted into cash at minimal time (Lebell and Schultz, 2004). The management of liquidity risk in banks presents two opposing views. Primarily, inadequate level of liquidity may lead to the need to attract additional sources of funds at higher costs. This will reduce the profitability of the bank; thereby ultimately reduce the threat of insolvency (Danilla, 2002). The weakness of a bank, particularly in areas of liquidity management rests on poor assets quality and capital erosion. A bank may find itself on the road to illiquidity, on account of huge debt over – hang on non-performing loans, compounded with the problems of bad management. When a commercial bank is compelled to access accommodation at the Expanded Discount Window (EDW) on a regular basis, it becomes a clear manifestation that liquidity challenges of the bank have become daunting. Most Nigerian banks are prone to excessive liquidity risk and continue to display signs of failure due to huge concentration or exposure to certain sectors, weakness in risk management and corporate governance (Sanusi, 2009). Liquidity management seeks to strike a delicate balance between the need to maintain sufficient liquidity to meet depositors’ cash calls and the imperative of avoiding the danger of compromising the earnings capacity by sitting on glut or excess liquidity (Okafor, 2011).

According to Gruben (2003), illiquidity jeopardizes the ability to service customers’ withdrawal demands while excess liquidity on its part, reduces the potentials of anticipated profit earnings of the bank concerned. He posited further that the crux of liquidity management issues is the ability to satisfy demand for cash in exchange for deposits. A quick collapse is precipitated by crisis of confidence, when a bank runs out of liquid assets and cannot make good on its obligations owed to depositors. In the face of this daunting challenge, it really does not necessarily matter if the net assets position is strong.

**SYNOPSIS OF COMMERCIAL BANKING ACTIVITIES IN NIGERIA**

In Nigeria, a bank is presumed illiquid whenever its liquidity ratio falls below the statutorily liquidity ratio prescribed for the period (CBN Prudential Guidelines, 2010). The importance of liquidity management in banks has really assumed a wider dimension in recent times, in response to the structural changes in funds management techniques. In Nigeria, the direct measures aimed at liquidity control of individual banks are through the imposition of prudential liquidity management ratios on banks (CBN, 2010). It was noted that the strategy of financing liquidity risk represents a key aspect of liquidity management, particularly on deposits and loans/advances. Debts and diversified funding sources usually indicate that a bank has a well developed liquidity management approach. Banks holding stable and high values of deposits portfolio are prone to crisis during periods of liquidity shocks than those without such pool of deposits.

According to Levan(2009),an assessment of the structure, types and conditions of deposits is the starting point for matching liquidity probabilities with the demands of the conflicting groups in the banking environment. In effect, the bank management will take into account, the different factors such as investment maturities to determine if the bank is liquid enough, judging from the cash –flows under different conditions.

The subject of corporate governance has assumed a global significance, having been found to be crucial for sustainable corporate performance. Perhaps the threat of collapse of a number of corporate establishments like the erstwhile Nigerian Telecommunications Ltd, including banks like Union Banks, Inter-continental Bank PLC which were believed to be at the frontline in business performance, brought to light the need for greater transparency and accountability in corporate management. Specifically, corporate governance is a system that ensures that directors and managers of enterprises execute their functions within a framework of accountability and transparency. Basically, the objectives of corporate governance are to ensure transparency, accountability, adequate disclosure and effectiveness of reporting system.This will promote investors confidence in the business enterprise.

For the banking industry, adherence to the culture of corporate governance has become imperative to promote public confidence which constitutes the cornerstone of banking business. It provides stakeholders with the necessary information for evaluating the performance of the banks. In an effort to ensure that only prudent management team is always put in place for a sound financial system, Central Bank of Nigeria (CBN) issued circular No BSD/DO/Vol. I/01/2001 to all banks on the pre-qualification for appointment to board and top management positions in Nigerian banks for the purpose of fostering Corporate Governance in banks.

According to Soludo (2010), some of the corporate governance abuses by banks’ management/Board which have negatively pronounced doom to Nigerian banks’ liquidity management include Fraudulent sharp practices, Weak internal control, Domineering influence of bank executives on the issues of abuses to lending limits and credit administration, Disagreements and management squabbles and conflict of interest, poor risk management resulting to non-performing loans, on- compliance with operational procedures, laws and Regulatory guidelines, Technical incompetence, poor leadership and administrative lapses and Ineffective Management Information system (MIS). These are obvious weaknesses which should be addressed holistically in order to enthrone best acceptable practices on corporate governance. The recent consolidation exercise done in the Nigeria’s banking sector has succeeded in putting in place broad-based membership of directors in various banks, thus eliminating the previous practice where clannishness and family interest were seen as the overriding factor that influenced most banks’ ownership structure, especially in Nigeria. It can be seen from the foregoing that the application of corporate governance in Nigeria is akin to the application of banking regulation. Despite all these, it is disheartening to observe that the problem of corporate governance is still alive in bank’s management.

In fact, the current liquidity crisis, resulting to threat of insolvency, distress or imminent collapse of many commercial banks which led to the CBN dismissal of some banks’ Executive directors is clear indication of poor corporate governance and therefore considered, as an unhealthy cankerworm in the sector. Omachonu (2009) stated that “the nature of crimes in the Nigerian banking industry has been as a result of absence of corporate governance, lack of transparency in operations. These have manifested in most banks illiquidity problems, leaving their core responsibilities for quick gains by way of round tripping. This has led in managements of some banks colluding with the board members to defraud and freely give margin loans to themselves without collaterals. The consequences of these operational lapses and institutional weaknesses resulted to pronounced negative repercussion on liquidity of most commercial banks.

In effect, the affected banks begin to show visible signs of inability to meet the demand of deposit liabilities and other commitments owed to various conflicting interest groupings in the industry. In his speech, the Governor of Nigerian Central Bank (Sanusi Lamido:2012) sharply attributed the liquidity shortfalls in commercial banks to non-adherence to corporate governance such as domineering Influence of Chief Executive Officers. The publication in the Nigerian Business Day (2009), expressed it this way:

We suspected that the CBN fell short of its supervisory responsibility when we look at the depth of the liquiditY crisis in banks. The reaction of CBN in arresting thE menace by deploying the deputy governor in charge

of financial surveillance lends credence to our opinion that integrity was compromised in banking supervision on the part of CBN (Business Day, 2009).

In managing liquidity risk, Gruben (2010) noted that some of actions a bank should take to ensure that a strong risk management framework exists for appropriate liquidity control include entail that:

1. Banks must be able to identify, monitor and control their exposure across their business lines, currencies and legal entities at the same time.
2. Banks must diversify their sources of funding and explain what strategies it hopes to raise funds from these sources at short notices, when confronted with bad liquidity scenario.
3. Banks collaterals must be actively managed and care should be taken to separate assets which are already tied–up (encumbered) and those that are free (Floating).
4. Regular stress tests such as excessive, irregular and unusual cash withdrawals by customers (Cash-Run) or frequent accounts closure must be undertaken, using different scenarios. This is very important as to enable the bank determine if it can keep its liquidity requirements and usage within the set limits.
5. Banks are required to maintain a buffer of unencumbered, high quality assets to meet emergency situations. These assets must be free from any barriers to their use.
6. A bank must as a matter of necessity, have a formal emergency liquidity plan with clear lines of responsibility and which must be tested regularly.

**2.2 EMPIRICAL REVIEW**

Empirically, facts from previous studies linked liquidity management and financial performance of Deposit money banks in Nigeria.

Takon and Mgbado (2020) examines the impact of liquidity on banks’ profitability using liquid assets, bank deposit, treasury bills, and return on asset as proxies. Secondary data was source from the Central Bank of Nigeria statistical bulletin. The study employs Ordinary least square using multiple regression techniques. The study finds that there is a: positive and insignificant impact between bank deposit and return on asset; negative and insignificant impact between liquid asset and return on asset; and positive and insignificant impact between treasury bills and return on asset. The study recommends that appropriate measures should be taken to prevent undesirable market development that may negatively impact on bank deposit; and also the recruitment of competent and qualified personnel to manage and maintain optimal level of liquidity.

Otekunrin, Fagboro & Femi (2019) examines the performance of selected quoted deposit money banks in Nigeria and liquidity management of 17 deposit money banks listed on the Nigerian Stock Exchange (NSE) between 2012 and 2017, the study extracts secondary data the financial statements of 15 deposit money banks for six years and analyze the data using ordinary least square method (OLS). Capital ratio (CTR), current ratio (CR) and cash ratio (CSR) were proxies for liquidity management while performance proxies was return on assets (ROA). The study find that liquidity management and bank’s performance are positively related and concludes that liquidity management is an essential factor in business operations and consequently leads to business profitability. It therefore recommends that proper liquidity management would assist in solving the agency theory problem of agency costs that arise when control of companies is separated from the ownership.

Bassey and Ekpo (2018) investigates the critical role played by the CBN and DMBs in fashioning out appropriate framework for liquidity management and identifies the challenges inhibiting effective performance of these roles. The study employs descriptive research design and find that deposit liabilities constitutes a major source of funding liquidity by DMBs while loans and advances constitutes the bulk of the illiquid assets. It also finds that DMBs in Nigeria operates above solvency level, having current ratio greater than unity and are over cautious, investing more in short-term securities to protect their liquidity positions. The study therefore recommends that DMBs should strengthen their credit risk assessment mechanism so as to increase their credit exposure to the private sector and concluded that DMBs should establish a robust liquidity risk management framework that is well integrated into the bank-wide risk management process and ensure that competitive pressures do not compromise the integrity of their liquidity risk management framework, control functions, limit systems and liquidity cushion.

Onyekwelu, Chukwuani and Onyeka (2018) examines the effect of liquidity on financial performance of deposit money banks in Nigeria for the period 2007-2016 using secondary data from five banks. The study employs multiple regression analysis and found that Liquidity has positive and significant effect on both banks’ profitability ratios and on Return on Capital Employed. The study recommends that; in addition to investing in human capital, banks should create fora where they sensitize their customers on variety of activities they indulge in that are capable of hindering effective liquidity management and the regulatory authority should put in place appropriate policy measures to ensure compliance and check high volume cash transaction handling and hoarding prevalent in the economy. The study concluded that the Central Bank of Nigeria should critically review and monitor the effectiveness of the implementation of its liquidity policy tools in banks to achieve the desired liquidity level and where necessary impose appropriate sanctions on erring banks.

2.3 **THEORETICAL FRAMEWORK**

The reconciliation of the conflicting objectives of liquidity and profitability of banks is so apt that, failure to find a balance can lead to crisis of confidence from customers. Theoretically,there are many theories that try to resolve this age long problem, they include: Anticipated Income Theory, Liability Management Theory, Commercial Loan Theory and Shiftability Theory. This study however is anchored on the shiftability theory.

**Shiftability Theory**

The theory states that a bank’s liquidity is adequately maintained if it holds assets that could be shifted or sold to other lenders or investors for cash even during period of crisis or distress. The shiftability theory focuses on the liability side of the balance sheet. The theory contends that supplementary liquidity could be derived from the liabilities of a bank, therefore, shiftability, marketability or transferability of a bank's assets is a basis for ensuring liquidity. The theory further contends that highly marketable security held by a bank is an excellent source of liquidity. The proponents of this view argued that a bank’s liquidity could be enhanced if it holds specified liquid assets required to sell to the Central Bank and the discount Market (interbank window) provided they are ready to purchase the asset offered at discount. According to Nwankwo (1991) argues that since banks can buy all the funds they need, there is no need to store liquidity on the asset side (liquidity asset) of the balance sheet. It pertinent to note that liquidity management theories have been subjected to critical review by various scholars. The general consensus however is that during period of distress or crisis, banks with grave financial conditions and downgraded status may be challenged in obtaining the desired liquidity because the investors/deposits confidence in them has been eroded. This is however not the case with healthy or financially sound banks, which liabilities (deposits, market funds and other creditors) constitute a major component of their liquidity sources as their liquidity strain may be less severe. Dodds (1982) posits that liability management theory consists of the activities involved in obtaining funds from depositors and other creditors and determining the appropriate mix of funds for a bank. He argues that to ensure convertibility without delay and appreciable loss, such assets must meet three requisites and sought answers to the following questions: how do we obtain funds from depositors? How do we obtain funds from other creditors? What is the appropriate mix of the funds for any bank? He concluded that management should examine the activities involved in supplementing the liquidity needs of the bank through the use of borrowed funds.

**CHAPTER THREE**

**RESEARCH METHODOLOGY**

**3.1 INTRODUCTION**

In this chapter, we described the research procedure for this study. A research methodology is a research process adopted or employed to systematically and scientifically present the results of a study to the research audience viz. a vis, the study beneficiaries.

**3.2 RESEARCH DESIGN**

Research designs are perceived to be an overall strategy adopted by the researcher whereby different components of the study are integrated in a logical manner to effectively address a research problem. In this study, the researcher employed the survey research design. This is due to the nature of the study whereby the opinion and views of people are sampled. According to Singleton & Straits, (2009), Survey research can use quantitative research strategies (e.g., using questionnaires with numerically rated items), qualitative research strategies (e.g., using open-ended questions), or both strategies (i.e., mixed methods). As it is often used to describe and explore human behaviour, surveys are therefore frequently used in social and psychological research.

**3.3 POPULATION OF THE STUDY**

According to Udoyen (2019), a study population is a group of elements or individuals as the case may be, who share similar characteristics. These similar features can include location, gender, age, sex or specific interest. The emphasis on study population is that it constitute of individuals or elements that are homogeneous in description.

This study is an institutional study, based entirely on the operations of three selected commercial banks, namely, First Bank, and Access Bank.These institutions being studied are quoted in the capital markets, quite experienced on liquidity management issues and also offer publicly published audited Annual Financial Statement Reports that are verifiable.

**3.4 SAMPLE SIZE DETERMINATION**

A study sample is simply a systematic selected part of a population that infers its result on the population. In essence, it is that part of a whole that represents the whole and its members share characteristics in like similitude (Udoyen, 2019). In this study, the researcher adopted the random sampling method to determine the sample size.

**3.5 SAMPLE SIZE SELECTION TECHNIQUE AND PROCEDURE**

According to Nwana (2005), sampling techniques are procedures adopted to systematically select the chosen sample in a specified away under controls. This research work adopted the random sampling technique in selecting the respondents from the total population.

This study is an institutional study, based entirely on the operations of two selected commercial banks, namely, First Bank and Access Bank.These institutions being studied are quoted in the capital markets, quite experienced on liquidity management issues and also offer publicly published audited Annual Financial Statement Reports that are verifiable.

**3.6 RESEARCH INSTRUMENT AND ADMINISTRATION**

The research instrument used in this study is the questionnaire. A survey containing series of questions were administered to the enrolled participants. The questionnaire was divided into two sections, the first section enquired about the responses demographic or personal data while the second sections were in line with the study objectives, aimed at providing answers to the research questions. Participants were required to respond by placing a tick at the appropriate column. The questionnaire was personally administered by the researcher.

**3.7 METHOD OF DATA COLLECTION**

Data are the basic raw materials for statistical investigation and research analysis. The main source of data collection for this research is secondary data, drawn mainly from the published Annual Financial Statements Reports of the selected banks, journals, researched publications, periodicals, as well as the CBN Annual Reports and other related literature. No questionnaire administration is required. However, the views of some stakeholders in the banking systems operations were sought through unstructured interviews.

**3.8 METHOD OF DATA ANALYSIS**

This study is essentially an analytical approach which applies the use of Pearson’s Correlation Coefficient and parametric statistical paired t-test statistical techniques to examine the extent the variables identified by the study pose challenges on Liquidity management in Nigerian commercial banks.

**3.9 VALIDITY OF THE STUDY**

Validity referred here is the degree or extent to which an instrument actually measures what is intended to measure. An instrument is valid to the extent that is tailored to achieve the research objectives. The measuring instrument used (Bank Annual Report and Account from 2000-2009) have both face validity and content validity. The researcher relied mainly on its research validity, authenticated by the Annual Financial Reports obtained from the bank specifically under research stud

**3.10 RELIABILITY OF THE STUDY**

The instruments (Banks Annual Report and Accounts) for the study is said to be reliable because of its consistency in results. In addition, it was statistically subjected to reliability test, thus exposed to the views of different experts who also affirm its reliability by ⅔ majority. Bank annual report and account is a standard and reliable document that contains all the financial statement of a bank for the fiscal year. It was found to be at least 95% confidence level.

**3.11 ETHICAL CONSIDERATION**

he study was approved by the Project Committee of the Department. Informed consent was obtained from all study participants before they were enrolled in the study. Permission was sought from the relevant authorities to carry out the study. Date to visit the place of study for questionnaire distribution was put in place in advance.

**CHAPTER FOUR**

**CHAPTER FOUR**

**DATA PRESENTATION AND ANALYSIS**

**4.1 INTRODUCTION**

The section deals with data presentation and analysis, based on the research questions and hypothesis earlier established for the study. The data for this study will be analyzed and presented, based on the research questions and hypotheses of the study earlier formulated. The instruments employed for the analysis are the parametric statistical paired sample t-test model and Pearson’s – Product Moment Correlation Coefficient will be applied in testing the third hypotheses under study. The t- test statistics determines the difference between the mean of two groups when the sample size is small i.e. less than 30 i.e.

n <30.

**4.2 MODEL SPECIFICATION**

A model is a mathematical representation of a problem situation. Based on the fact that different methods of data analysis will be used to test the hypotheses, the model to be applied will therefore be more than one.

**Model Specification 1**

For hypotheses 1 and 2, 3, using t-test statistical model the formula is defined thus:

X1 - X2

t= S12 + S22

n1 n2

Where: X1= Mean of Group one

X2= Mean of Group two

S1= Variance of X1

S2= Variance of X2

df= n1+n2 - 2 (degree of freedom)

**Model Specification I1**

Using Pearson’s Correlation Coefficient from mean method, the formula to be adopted in testing Hypothesis Three is defined as follows:

r = Ʃ(X-X) (Y-Y)

Ʃ(X-X)2 Ʃ(Y-Y)2

The data was condensed Annual Financial Statement reports of the selected banks which provided the major ingredients for statistical analysis and presentation. Between the period as shown on table 4:1 the ratio of Non-performing loans at First Bank of Nigeria Plc, in relation to the total loans and advances (LAD) stood at 28.34% (N8072.08), 20.8% (N5256.8), 18.45% (N4231.57), and 16.27% (N3248.56) respectively, indicating that the liquidity of the bank is affected as the ratio of non – performing loans continues to rise.

Again, in the year 2004 – 2005, the ratio of non – performing loan as it affects the liquidity of the bank rose tremendously to 20.13% (N6782.33) and 30.67% (N9086) respectively.

From the year 2006 – 2008 and consequent to banking sector reforms put in place, the effect of non- performing loans, relative to the total advances reduced to 7.92% (N3512.28), 7.85% (N1417.66) and 6.27% (N1781.74). Nevertheless in 2009, the effect of non – performing loans (NPL) continues to soar astronomically to 28.3%, thereby affecting the liquidity of the selected under study, more seriously.

In Access bank, in the year 2000 – 2004, the ratio of non – performing loan, shown on table 4.1 as it affects the liquidity of the bank was 20.5% (N9091.13), 21.61% (N7330.32), 21.35% (N7016.91), 19.35% (N19.15), 18.65 (N2625.55), 24.20% (N9361.52), 24.65% (N8361.52), 18.5% (N7656.22), 12.5% (N2370.5) and 5.25 (N 5530.2).

**4.3 DATA ANALYSIS AND PRESENTATION**

**HYPOTHESIS ONE**

Hypothesis One:

**Ho:** Non-performing loan does not affect commercial bank’s Liquidity.

**Hi:** Non-performing loan affects commercial bank’s Liquidity.

From the result, the following statistical values were obtained at 0.05 level of significance.

Non-performing Loan (x1) =3.00, SD =1.010

Other Classified Debts (x2) =2.44, SD =1.033

Therefore:

X1 - X2

t = S1 2 + S22

n1 n2

= 3.00 – 2.44

(1.010)2 + (1.033)2

14 14

= 0.56

0.07286 + 0.07622

14 14

= 0.56

0.07286 + 0.7622

0.56

= 0.1514

= 0.56

0.1491 = 1.45

df =n1 + n2 -2=14+14-2=14

at =0.05 =1.45

t – Critical/ t- table =1.06

Analysis above shows the mean value, standard deviation and standard error for the pair(s) of the variables compared in the paired sample t- test technique. It further shows the values of the Correlation Coefficient and the significance value for each pair of the variables used in the paired sample t- test statistical procedure.

**DECISION:**

Given the t-test statistical result shown on Table 4:2 on the appendices, the Table t-value= (Tt=1.06) is less than the calculated t-value (Tc=1.45). Following the statistical deduction from the result, the null hypothesis is therefore rejected and alternate hypothesis accepted. Since the Table t-value= (Tt=1.06) < calculated t-value (Tc=1.45 at =0.05, the implication of this paired t-test statistic sampled result is that changes in the Non-performing loans significantly affect commercial bank’s liquidity positions. Thus, the statistical proof has further accentuated that liquidity shortfalls and capital erosion experienced in most commercial banks in Nigeria have direct correlation with the problems caused by Non-performing loans.

Specifically, the outcome of the paired t-test statistical result clearly indicates that an upward high level of non-performing loans ratios have considerably been a major contributor to every ugly episode of systematic commercial bank’s illiquidity problems that often lead to distress, threat of insolvency, and invitation to forbearance by the banking regulators. The result extensively reveals the extent to which non-performing loans negatively affect bank’s commercial liquidity. Thus, the study has unequivocally drawn its conclusion that liquidity shortfalls and capital erosion experienced in most Nigerian commercial banks have direct correlation with the negative effects of Non-performing loans (NPL). At decision rule, further statistical analysis obtained on Table 4:3 showed a high positive t-test statistical value 7.897 and a low significance value of 0.000 at the lower and upper limits of 95% confidence interval of the difference of the paired differences. It therefore becomes statistically expedient to reject the null hypothesis and accept the alternate hypothesis.

**HYPOTHESIS TWO**

**Ho:**  Changes in the liquidity levels of a Commercial bank do not negatively affect its profitability.

**Hi:** Changes in the liquidity levels of a bank significantly affect its profitability.

**NOTE:** Profit remains the standard indicator measuring the degree of efficiency attained by a profit-making bank in the utilization of organizational resources. It enhances the index of economic well-being for affected stakeholders, particularly shareholders, depositors and government.

The above hypothesis was tested, using Pearson’s product Moment Co-efficient correlation (r). Two variables were correlated – as the statistical tool to analyze the condensed data collected from First Bank, Access Bank United Bank Annual Reports and predicated at 0.05 level of significance to verify the extent to which changes in bank’s liquidity levels affect bank’s profitability.

**HYPOTHESIS THREE**

From the result using a parametric statistical paired sample t-test analytical technique, the following statistical values were obtained .

Liquidity : (X1) =4.68, SD =0.88

Other Classified Debts: (X2) =3.73, SD= 0.86

Therefore:

X1 - X2

t = S1 2 + S22

n1 n2

= 0.95

(.88)2  + (.86)2

14 14

= 0.56

0.07286 + 0.07622

14 14

= 0.95

0.05531 + 0.05282

0.95

= 0.10813

= 0.95

0.32883 = 2.88

df = n1 + n2 -2 =14+14-2=16

at =0.05 =2.88

t – Critical/ t- table =1.94

The data on the Table 4:4 contained on the Appendices shows the relationship between profitability growth and the liquidity positions of Access bank, United Bank, and First Bank, selected for the research study.

In the year 2000, the growth rate of profitability in relation to liquidity for Access Bank was 19.04% at N11292 liquidity level, 16.75% for United Bank at N7428.2 liquidity level while First bank recorded 20.49% at N9091.31 liquidity level. In 2001, Access bank experienced 23.05% profit growth when the liquidity position rose to N12624, 18.5 %( N6275.38) at United Bank for Africa and 21.61% (N7330.32) at First bank. However, in the year 2003 and owing to liquidity shortfalls at Access bank, the profit growth dropped to 19.3% at N9634 liquidity level, 17.5%(N5683.75) at United bank for Africa while First bank recorded 21.05% profit growth at liquidity level of N1533.19 level of liquidity. On a cumulative average, the periods 2004 up till 2007 as shown on the Table 4:4,indicated that affected commercial banks profitability growth rate stood at 21.32%(Access bank), 14.88%(United Bank) and 16.85% for First Bank.

This fluctuation in the profitability growth of the selected banks under study was orchestrated by the inverse relationship between shortfalls in the liquidity levels of the affected commercial banks. This scenario could arise when certain commercial banks begin to experience crisis of illiquidity, on account of deposits flight, capital erosion and investments mismatch in portfolio selection.

However, the year 2008, Access bank recorded a 19.5% decline in the profit growth at N12011 liquidity level, 17.5 %

(N18964) at United bank and 12.85% profit shortfall was similarly experienced at First Bank Plc.

This means in effect that, as the liquidity position is enhanced, banks are predisposed to availability of funds that could be committed to investment opportunities to maximize profitability and shareholders wealth.

**DECISION:**

The result shows the profitability growth rate of the commercial banks selected for study. From the result of the statistical analysis shown on Table 4:5, the table t-value obtained is 1.94 while the calculated t-value (t-cal.) =2.88 Given the fact that the calculated t-value-cal=2.88>table value=1.94, it is therefore sufficiently evident for the researcher to reject the null hypothesis and safely accept the alternative hypothesis. The implication of statistical result clearly suggests that changes in commercial bank’s liquidity significantly affect its overall profitability performance.

**HYPOTHESIS THREE**

**HO:** Changes in bank’s Statutory Reserve Requirements do not negatively affect its liquidity.

**H1:** Changes in bank’s Statutory Reserve Requirements significantly affect its liquidity position.

**ANALYSIS OF THE HYPOTHESIS**

Basically, commercial banks accept current deposits and they also lend to their customers. To safeguard the deposits of customers and to prevent bank failure, commercial banks are statutorily required to maintain a certain percentage of their total cash holdings (Deposits) with the Central Bank of Nigeria (CBN). This percentage is called the Cash Reserve Ratio (CRR). This ratio varies from time to time, depending on the monetary policy being pursued by the apex financial authority.

By the same token, the law makes it mandatory for commercial banks to keep a certain proportion of their deposit liabilities in liquid form. This proportion is known as the liquidity Reserve Ratio (LRR).

In Nigeria, when the Central Bank of Nigeria (CBN) wants to reduce banks’ liquidity, it increases this ratio. This regulatory measure invariably affects the level of liquidity at the disposal of the commercial banks to engage on potential investment opportunities and cope with other conflicting interests(particularly of shareholders) as they fall due.

To enhance their liquidity requirements, the commercial banks must then recall their outstanding loans and advances. As they do this, their liquidity base will be boosted. However, experience of the commercial banks in the past indicated that the task of recalling outstanding loans and advances has been an uphill task, impairing their lending ability. But if the Central Bank wants to promote liberal cash flow in the economy through increased bank lending, it will reduce this ratio as well as the Monetary Policy Rate (MPR).

In effect, the vagaries in the statutory reserve requirements have close relationship with the overall operating liquidity of commercial banks. As shown on the Table 4:6 on the appendices in the year 2000, the liquidity ratio 64.1% and cash ratio of 9.8% were prescribed as the statutory requirements by the monetary authorities (CBN) when the total demand deposit was N345001.4. The table4:6 on the Appendices revealed further that as the banks’ demand deposits increased to N448021, the reserve ratio requirements rose to (52.9%) and cash ratios 10.8% respectively. The implication of this phenomenon is that, as the statutory ratio increases, the liquidity of commercial banks invariably shrinks. Between the 2002 to 2005, the rising trend in reserve ratios persisted, indicating an inverse functional relationship between a rise in reserve ratios and decline in the liquidity positions of the affected banks. Therefore, the constraints imposed by the statutory regulation over commercial bank’s deposits reserves tend to curtail the enormous liquidity flow that would have ordinarily remained at the disposal of the commercial banks for profitable investments and other commitments.

**DATA ANALYSIS OF HYPOTHESIS 111**

Using a parametric statistical paired sample t-test analytical technique was adopted to establish the extent statutory requirements affect commercial bank’s liquidity levels, the result obtained was predicated at 0.05 probability level of significance. From the result, the following statistical values were obtained.

Liquidity Ratio: (x1) =4.54, SD =0.39

Cash Ratio (x2) =4.51, SD =0.43

Therefore:

Therefore:

X1 - X2

t = S1 2 + S22

n1 n2

= 4.54 – 4.51

(0.39)2 + (0.43)2

9 9

= 0.03

0.1521 + 0.1849

9 9

= 0.03

0.0169 + 0.0205

0.03

= 0.0374

= 0.03

0.19347 = 0.551

t-cal=0.551

df =n1 + n2 -2=9+9-2=16

at =0.05

t – Critical/ t- table =2.12

Table 4:7 shows the mean value, standard deviation and standard error for the pair(s) of the variables compared in the paired sample t- test technique. It further shows the values of the Correlation Coefficient and the significance value for each pair of the variables used in the paired sample t- test statistical procedure.

The table 4:7 contained on the appendices shows the respective values of the computed mean, the table t – value, calculated t-value, standard deviation and corresponding significance probability. The statistical result showed a calculated t-statistic of 2.12. Based on the fact that the calculated t-value (Tc=0.551is less than the t-tabulated (Tt=2.12), at =0.05,) the null hypothesis is therefore accepted. The implication of the Paired t-test statistic result is that there is no positive difference to suggest that bank’s reserve requirements have any significant impact on commercial banks liquidity. Specifically, the t-test statistic result has safely provided the premise for the researcher to conclude unequivocally that fluctuations in the Statutory Reserves requirements do not constitute a major determinant that influences commercial bank’s liquidity positions.

**CHAPTER FIVE**

**SUMMARY, CONCLUSION AND RECOMMENDATION**

**5.1 SUMMARY**

The main objective of the research is to examine the effects of liquidity on the selected commercial banks like Access bank First bank iand United Bank of Africa in Enugu State as case study. The study examined the extent to which Non-performing loans influence Commercial banks’ liquidity. The study ascertained the extent to which fluctuations in commercial bank’s liquidity levels affect its profitability. The study established the extent to which statutory reserve requirements influence commercial bank’s liquidity position.

Institutional approach was employed for the study and with the aid of random sampling method, three banks Access Bank First Bank and UBA in Enugu Metropolis was selected for the participant for the study. The secondary data generated from the Financial Statements Reports and Accounts of the selected banks as well as the Central Bank of Nigeria (CBN) reports for the period was used to test and analyze the three hypotheses, based on the stated objectives and the related research questions, using a Parametric statistical sample paired t- test model and Pearson’s Correlation coefficient as the statistical tools.

**5.2 CONCLUSION**

Banking is a very strategic industry whose activities have far-reaching consequences on other sectors of the economy. Given the objectives of this study, it has not been an easy task to put up a thesis of this depth, when delicate issues such as banks’ liquidity management are being discussed. This is particularly of interest, in view of the fact that one has to consider its vast implications on the depositors, the bankers and other stakeholders, to which the banks owe conflicting obligations. The findings from the study revealed the following:

(1) In relation to the first objective of the study, it indicated that Non-performing loans impact negatively on effective bank liquidity management since the ratio of non-performing loans to total loan portfolio is more than 12% and persistently higher than the tolerable limit of 10%, prescribed in the Central Bank (CBN) prudential guidelines.

(2) In relation to the second objective, it was revealed that the poor profitability and capital erosion observed in most commercial banks was orchestrated by some of the inhibiting factors such as institutional weaknesses, margin loans, poor perfection of realizable securities, unethical sharp practices poor corporate governance and misleading financial returns by the commercial banks. This was further aggravated by the failure of banks’ regulators to adopt more pro-active mechanisms in the discharge of their oversight functions.

(3) In relation to the third objective of the study it was observed that the liquidity shortfalls in most Nigerian commercial banks have no significant relationship with the changes in the statutory reserve requirements. Technically speaking, although the liquidity reserve ratio (LRR) imposed by the Central Bank has fairly remained persistent at 33%,it does not substantially impair their ability to engage readily on investments, maximize profit and satisfy other commitments.

It is therefore imperative that liquidity is very crucial and must be prudently managed, if banks are to truly remain competitive and viable. An owner of a property, placed on trust, has the right to demand it when he decides to have it back. In the light of this, the researcher therefore expressed strong opinion that the interest of depositors, investors and other stakeholders which places dilemma on a banker should be the focal point in course of discussions on banks’ liquidity management issues. It is therefore, no gainsaying the fact that only a commercial bank with adequate liquidity position can remain competitive, relevant and an active player within the domestic economy and in the global arena.

**5.3 RECOMMENDATION**

The dictum that prevention is better than cure is very apt in the management of banks’ liquidity. In a bid to prevent the problems of illiquidity in banks, the regulatory authorities should as a matter of necessity, put in place an effective mechanism, capable of enforcing stringent regulatory controls on the commercial banks. This can be achieved through regular oversight functions, carried out periodically with a view to ensuring strict compliance or imposition of sanctions against deviations to operational guidelines. Such measures and recommendations which are designed to promote sound financial condition and confidence among bank customers include the following:

(1) In order to build a virile, competitive and resilient banking system, there is need for the government and its regulatory agencies to enforce effective compliance to regulatory policy by the banks for a healthy financial system growth.

(2) The apex regulator should put in place effective control machinery and remain pro-active in the discharge of their oversight functions so as to promote good corporate governance to deter unethical conduct and other abuses that had systematically eroded banks’ liquidity in the past.

(3) In view of the numerous findings made in this study, it is strongly recommended that banks should introduce measures to control indiscriminate credit extension such as margin loans which has been the practice in the past, without recourse to perfect and realizable collateral security.

**REFERENCE**

Adalsteinsson, G. (2014). The Liquidity Risk Management Guide: From policy to pitfalls.Sussex: John Wiley and Sons.

Adeyinka, S. (2013). Capital Adequacy and Banks' Profitability: An Empirical Evidence from Nigeria, American International Journal of Contemporary Research 1(3) 10-29.

Agbada, A. O. & Osuji, C. C. (2013). The Efficacy of Liquidity Management and Banking Performance in Nigeria. International Review of Management and Business Research, 3(2) 57-72

Akhtar L. (2004),”Proceedings of the Conference on Commercial Banks Liquidity Challenges in Financing Small, Medium Enterprises in Nigeria, NISER, Ibadan, March, pp.360-394.

Anameje, A (2007) “Applications of corporate Governance in Banking, publication of Nigerian Banker,October,2007,P.14

Anyanwu, J. C. (1993). Monetary Economics: Theory, Policy and Institutions. Benin City. Hybrid Professional Publishers Ltd,

Banks, E. (2014). Liquidity risk: Managing funding and asset risk. Hampshire: Palgrave Macmillan.

Barnaccoorsi de Patti, (2007) Bank Reforms and Efficiency in Pakistan, IMF working Paper WP/01/136, Middle Eastern

Basel Committee on Banking Supervision, (2008). Principles for Sound Liquidity Risk Management and Supervision. Bank for International Settlements. Press & Communications

Bassey E.B., & Ekpo U.N (2018). Liquidity Management in Nigerian Deposit Money Banks: Issues, Challenges and Prognosis. International Journal of Economics, Commerce and Management, 6(5) 556-580

Bassey, E.D (2017). Liquidity Management and Performance of Deposit Money Banks in Nigeria 1986 – 2011: An Investigation. International Journal of Economics, Finance and Management Sciences. 5(3) 146-161

Ben Naceur, S., & Kandil, M. (2009). The impact of capital requirements on banks’ cost of intermediation and performance: The case of Egypt. Journal of Economics and Business, 61(1), 70-89.

Bhattacharyya, I. & Sahoo, S. (2011). Comparative Statistics of Central Bank liquidity Management, Some insights, Economic research International, 3(2), 34-56.

Bikker, J. A. (2010). Measuring performance of banks: an assessment. Journal of Applied Business and Economics, 11(4), 141-159.

Bourke, P. (1989). Concentration and other Determinants of Bank Profitability in Europe, North America and Australia. Journal of Banking & Finance, 13(1), 65-79.

Central Bank of Nigeria (2005); The Prudential Guidelines for Licenced Banks, Lagos CBN publications, 2nd Edition

Chakrabarti,R.(2005); “Sustaining Banking Sector Liquidity Scenarios. Journal of int’l Gold publications, February 2005, 16, (2) pp27 -30), Kent Hills,Indonesia.

Choudhry, M. (2011). An Introduction to Banking: Liquidity Risk and Asset and Liability Management.Sussex: John Wiley and Sons.

Danilla, Nicolae (2002); Management lichitii Bankare, Economical, Bucaresti

De Campbell, G.(2007);Research paper presented at the 5th International Islamic Finance Conference, organized by Monash University, Kuala Lumpur, Malaysia, 3rd – 4th September,2007,e-mail-asyraf ww.edu.my

Demirgüç-Kunt, A., & Huizinga, H. (1999). Determinants of commercial bank interest margins and profitability: some international evidence. The World Bank Economic Review, 13(2), 379-408.

Deposit Money Banks in Nigeria, Journal of Economics and Sustainable Development 9(4) 131-14

Drakos Eljelly, A. (2004). Liquidity-Profitability Tradeoff: An Empirical Investigation in an Emerging Market. International Journal of Commerce & Management. 14(2),48-61.

Editura, P. (2006); Liquidity Risk Management Report on Market Liquidity and its incorporation into Risk Management. http./www.banque.france.fr/gb/publications,Rsf//2006/0506pdf.

Eljelly, A. (2004). Liquidity-Profitability Tradeoff: An Empirical Investigation in an Emerging Market. International Journal of Commerce & Management. 14(2),48-61.

Gruben, W.C.(2008); Aspects of Liquidity Management in Commercial Banking System, An article published in the Banking Sector Review,4th Edition, Barron educational Series pp 24 -35.Mexico

Jawando, G. (2000); Assessment of Banks Credit Performance: Viewpoint of Customers Forum. Paper and Proceedings of Bank Directors Seminar. April 7th, 2000, Lagos FITC pp15-21.

Lahart, J. (2009); Banking in India: ‘Reforms and Reorganization” http:/unpal.un.org/public/documents//unipan025796.pdf.

Lebell, D and Schultz. (2004); Identifying Liquidity Constraints on Banks Portfolio Management issues. A critique of Institute of Financial Administration, Economic Policy Discussion paper, Vol.xi No 35,(2004) P.32, Management Review Incorporation, No 1 Fall, Califonia,

Levan, Khoa. (2010); Characteristics, Problems and Sources of Liquidity for Institutional Financing. AERC Research Publication Paper, vol.11 NR (pp46-50), Nairobi.

Maizel, A. (2007);”Managerial Perspective for Managing Liquidity Shocks” The Wall Street Journal, Tuesday July, 28 P.A.

Navarro, M. (2008); Basel Committee Document on Liquidity Risk Management and Supervisory Challenges in Banking. Journal of Financial Services Research, Sept.2008, pp.61-83, Malaysia. NGK.

Okafor, F. (2011), Banking Sector Reforms in Nigeria, (1960-2010), EzuBooks, 22, Lumumba Str. New Haven, Enugu, Nigeria.

Okaro, C. S (2009); Banking Laws and Regulations Abimac Publishers, 32 Amikwo,Awka, Anambra State

Pandey, I. M. (2005). Financial Management. Vikas Publishing House. PVT Ltd New Delhi.

Shen, C., Chen, Y., Kao, L. & Yeh, C. (2010). Bank liquidity risk and performance. International Monetary Fund, Working Paper.

Trenca, Loan. (2003); Steps in Managing Liquidity Crisis: An Article of Bases-Bolyai Publications, University Theodor Mihali, and Chij County, Romania.

Umeaba, T.K,(2009), “The impact of Non-performing Loans in Banking Operations in Nigeria” A paper presented at Kaduna Chamber of commerce Conference,Kaduna, on vision 20- 20 :Challenges Ahead.

Uremadu, S. (2012). Bank Capital Structure, Liquidity and Profitability Evidence from the Nigerian Banking System. International Journal of Academic Research in Accounting, Finance and Management Sciences, 8(20)78-91.