

**CREDIT RISK MANAGEMENT AND DEPOSIT MONEY BANK PERFORMANCE
IN NIGERIA**

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**A RESEARCH PROJECT WRITTEN AND SUBMITTED TO THE DEPARTMENT
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DECLARATION

I declare that:

This project work is based on a study undertaken by me in the Department of Banking and Finance, University of Benin under the supervision of Dr. L. E. Igbinoia. This work has not been previously submitted for award of a degree elsewhere.

All ideas and views are product of my personal research effort and all references to works of others have been duly acknowledged.

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CERTIFICATION

This is to certify that this research work has been submitted by **Joan Uwaiké OMOZUAPO** with the Matriculation Number **MGS1606449** to the Department of Banking and Finance, Faculty of Management Sciences, University of Benin, Benin City under the full supervision of **Dr. L. E. Igbinovia** and in accordance with the requirement of the Department of Banking and Finance of the University of Benin, Benin City for the award of Bachelor of Science Degree in Banking and Finance.

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DEDICATION

This work is dedicated to God Almighty for his care, love, grace, support and endless guidance towards me and my parents, Engr. and Mrs. Joseph Omozuapo for their relentless support.

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First and foremost, praises and thanks to God Almighty, for His blessings throughout my research work to complete the project successfully.

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TABLE OF CONTENTS

TITLE PAGE.....	i
DECLARATION	ii
CERTIFICATION	iii
DEDICATION	iii
ACKNOWLEDGEMENTS	v
TABLE OF CONTENTS	vi
LIST OF TABLES	ix
ABSTRACT	x
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background to the Study	1
1.2 Statement of the Problem	4
1.3 Objectives of the Study	6
1.4 Research Hypotheses	6
1.5 Scope of the Study	7
1.6 Significance of the Study	7
1.7 Limitations of the Study	8
CHAPTER TWO	9
LITERATURE REVIEW	9
2.1 Introduction	9
2.2 Conceptual Review	9

2.2.1	Credit Risk	9
2.2.2	Credit Risk Management	11
2.2.2.1	Counterparty/ Borrower Risk	12
2.2.2.2	Intrinsic/ Industry Risk	13
2.2.2.3	Portfolio/Concentration Risk	13
2.2.3	Bank Credit Risk Management Strategies	14
2.2.4	The Basel Accords on Credit Risk Management	16
2.3	Theoretical Review	18
2.3.1	The Credit Risk Theory	18
2.3.2	Commercial Loan Theory	19
2.3.3	The Shiftability Theory	20
2.3.4	The Anticipated Income Theory	21
2.3.5	The Liability Management Theory	22
2.4	Empirical Review	23
2.5.	Review Summary	38
CHAPTER THREE		40
METHODOLOGY		40
3.1	Introduction	40
3.2	Research Design	40
3.3	Theoretical Framework	40
3.4.	Population of the Study	41
3.5.	Sample Size and Sampling Technique	41

3.6 Sources of Data	42
3.7 Model Specification	42
3.8 Method of Data Analysis	43
3.9 Measurement of Variables	43
CHAPTER FOUR	44
DATA ANALYSIS AND INTERPRETATION OF RESULT	44
4.1 Introduction	44
4.2 Data Analysis	45
4.2.1 Descriptive Statistics	45
4.2.2 Correlation Analysis	46
4.2.3 Regression Analysis	47
4.3 Discussion of Findings/Hypotheses Testing	49
CHAPTER FIVE	51
SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS	51
5.1 Introduction	51
5.2 Summary of Findings	51
5.3 Conclusion	52
5.4 Contributions(s) to Knowledge	52
5.5 Recommendations	52
REFERENCES	54
APPENDIX	59

LIST OF TABLES

Table 4.1: Descriptive Statistics	45
Table 4.2: Correlation Analysis	46
Table 4.3: Regression Result	48

ABSTRACT

The study investigated credit risk management and deposit money bank performance in Nigeria utilizing panel data from ten (10) conveniently sampled deposit money banks for a period of 5 years (2014 to 2018). The rationale for the present study is predicated on the fact that risk is a critical consideration for every decision of deposit money banks and also a major determinant of their performance.

The study employed the Ordinary Least Squares techniques on variables such as loans and advances (LAA), non-performing loans (NPL), capital adequacy ratio (CAR) and return on assets (ROA). The study showed evidence that loans and advances (LAA) and capital adequacy ratio (CAR) had a positive and statistically significant relationship with the performance of deposit money banks in Nigeria, while non-performing loans (NPL) had a negative and statistically insignificant relationship with the performance of deposit money banks in Nigeria.

The study recommends among others that, management needs to be cautious in setting up a credit policy that will not negatively affect the operations of their banks in order to ensure judicious utilization of deposits and maximization of profit. Also, the study recommends that Nigerian Government need to ensure adequate energy facilities should be embraced in the different sectors of the Nigerian economy as well as promoting energy-efficient products and appropriate practices at the side of the end users and energy generation. Furthermore, CBN for policy making purpose should regularly assess the lending attitudes of deposit money banks and effective cash management policies to avoid insolvency in the financial system. Also, to increase credit volume, the interest rate policy must be considered within the frame of economic circumstances of the time for low interest rate does facilitate quick repayment and drastically minimize debt failure. Finally, determining the credit worthiness of a customer whether individual or corporate organization must be carefully planned. A rush into the approval of loan without sourcing adequate and relevant information on the prospective borrowers must be avoided if the bank wishes to circumvent delays in the recovery of debt.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Deposit money banks play a major role in all the economic and financial activities in modern society. One of the core activities of the banking industry worldwide and, in particular Nigeria, is the creation of credit to deserving and deficit units of the economy (Ahmad & Ariff, 2016). Credit creation is the main income generating activity for the banks but this activity involves huge risks to both the lender and the borrower (Al-Khouri, 2011). Deposit money banks are subjected to a wide array of risks in the course of their operations and generally banking risks fall into three categories: financial, operational, and environmental risk. The risk of a trading partner not fulfilling his or her obligation as per the contract on due date or anytime thereafter can greatly jeopardize the smooth functioning of a bank's business (Ariffin & Kassim, 2014).

On the other hand, a bank with high credit risk has high bankruptcy risk that puts the depositors in jeopardy. Among the risk that face banks, credit risk is one of great concern to most bank authorities and banking regulators. This is because credit risk is one risk that can easily and most likely prompts bank failure. Credit creation calls for prudent management of the risks associated with it. According to Chijoriga (2011), credit risk is the most critical and expensive risk associated with financial institutions and its impact on performance is quite

significant compared to any other risk associated to the banking sector as it is a direct threat to solvency of the institution.

The presence and importance of credit risk calls for its prudent measurement and management for good financial health of any financial institution. Credit risk measurement and management has evolved dramatically over the last 20 years in response to a number of secular forces that have made it more important than ever before (Kolapo, Ayeni, Kolade & Ojo, 2012).

Among these forces have been a worldwide structural increase in the number of bankruptcies, a trend towards disintermediation by the highest quality and largest borrowers, more competitive margins on loans, a declining value of real assets (and thus collateral) in many markets and a dramatic growth of off-balance sheet instruments with inherent default risk exposure including credit risk derivatives (Musyoki & Kadubo, 2016). In response to these forces academics and practitioners alike have responded by developing new and more sophisticated credit risk measurement and management strategies including credit-scoring/early-warning systems, moved away from only analysing the credit risk of individual loans and securities towards developing measures of credit concentration risk (such as the measurement of portfolio risk of fixed income securities), where the assessment of credit risk plays a central role, developing new models to price credit risk (such as the- risk adjusted return on capital models (RAROC)) and developing models to measure better the credit risk of off-balance sheet instruments (Olajide, 2015).

One of the major developments in credit risk management are the so-called Basel Committee on Banking Supervision (BCBS) regulations for banks and other financial institutions. For instance, Basel I, and Basel II and Basel III represent the banking supervision accords proposed by the Basel Committee (Felix & Claudine, 2008). Basel I, also known as 1988 Basel Accord, implemented a framework for a minimum capital standard of 8% for commercial banks. This was enforced by law in the G10 countries in 1992. Basel I with focus on credit risk considers the minimum capital requirement as the main tool to prevent banks from taking excessive risk. The main reason was the belief that a well-designed structure of incentives is more effective than structural controls. Basel I contributed to the financial stability by creating conditions for equal competition amongst banks across borders. However, several issues such as lack of risk sensitive measures of the creditworthiness and weak incentives for banks to strengthen risk management system emerged as shortcomings.

The strategies for credit risk management include transferring to another party, avoiding the risk, reducing the negative effects of the risk, and accepting some or all of the consequences of a particular risk (Olajide, 2015). The very nature of the banking business is so sensitive because more than 85% of their liability is deposits from depositors (Saunders & Cornett, 2008). Banks use these deposits to generate credit for their borrowers, which in fact is a revenue generating activity for most banks (Olalekan & Adeyinka, 2013). This credit creation process exposes the banks to high default risk which might lead to financial distress including

bankruptcy. All the same, beside other services, banks must create credit for their clients to make some money, grow and survive stiff competition at the market place.

Despite the BCBS regulations the current global financial crisis indicates that risk management of the financial institutions is not adequate enough. This leads to the failure of the banks in highly challenging financial market (Poudel, 2012). Reports has indicated that the major issues facing the banking industry include new regulations especially with the passing of the new regulations, which requires financial institutions to build up their minimum core capital requirement to twenty-five billion Naira, the global crisis experienced worldwide affected banking industry in Nigeria, (though at a reduced rate) and more so the mobilization of deposits and trade reduction and the declining interest margins (Soyemi, Ogunleye & Ashogbon, 2014).

Nigerian banks must devise credit risk management strategies that will enable them to meet regulatory requirements by the BCBS and CBN and yet stay in profitability (Onaolapo, 2012). Credit risk management strategies are designed and applied both internally as an operational tool by bank management and externally by bank regulatory authorities to manage the financial health of the banking sector, which transcends to the economy at large.

1.2 Statement of the Problem

The existence of BCBS and CBN requirements imply that commercial banks in Nigeria must employ various risk management techniques for them to meet the performance thresholds set by these institutions. Nigerian banks have also not been spared by the 2007 global financial

crisis. The strategies and the extent to which those strategies are being used by Nigerian banks to maintain the required benchmarks and remain profitable are largely unexplored. Studies on the impact of risk management on performance of commercial banks have mixed findings (Abdullahi, 2013; Abdus, 2015; Ali, Jatau & Ashami, 2016; Anthony, 2015; Anthony, 2010 and Aykut, 2016).

The literature reviewed shows that the studies done have not used the same but different measures of bank performance, in addition to different risk measures, thus the varied results. Some of these studies have been outside Nigeria. From the foregoing it would be seen that the debate on the impact of risk management on bank performance is not conclusive. This study sought to fill the gap and empirically add to the existing literature by specifically looking at capital adequacy, loss given default, loan loss provisions and non-performing loans ratios as the independent variables and the bank stock performance as the dependent variable. The study also used more recent data. The use of stock performance, rather than the traditionally balance sheet based measures of performance was a strength for this study as it broadened the empirical literature in this area.

Also, Many Nigerian banks had failed in the past due to inadequate management of their risk exposure. The problem has continued to affect the industry with serious adverse consequences as banks are generally subject to wide array of risks in their business operations. Against this background, the need to empirically examine the impact of credit risk management on the performance of selected deposit money banks in Nigeria becomes

necessary. More specifically, this study seeks to provide answers to the following research questions;

- i. To what extent do loans and advances (LAA) affect the performance of deposit money banks in Nigeria?
- ii. To what extent does non-performing loans (NPL) affect the performance of deposit money banks in Nigeria?
- iii. To what extent does capital adequacy ratio (CAR) impact on the performance of deposit money banks in Nigeria?

1.3 Objectives of the Study

The general objective of this study is to empirically investigate the relationship between credit risk management and the performance of deposit money banks in Nigeria. However, the specific objectives include to;

- i. Examine the effect of loans and advances (LAA) on the performance of deposit money banks in Nigeria.
- ii. Ascertain the effect of non-performing loans (NPL) on the performance of deposit money banks in Nigeria.
- iii. Examine the effect of capital adequacy ratio (CAR) on the performance of deposit money banks in Nigeria.

1.4 Research Hypotheses

The hypotheses for this study are stated in null form. They include;

There is no significant relationship between credit risk management and the performance of deposit money banks in Nigeria

H₁: Loans and advances (LAA) do not have any significant effect on the performance of deposit money banks in Nigeria.

H₂: Non-performing loans (NPL) do not have any significant effect on the performance of deposit money banks in Nigeria.

H₃: Capital adequacy ratio (CAR) does not have any significant effect on the performance of deposit money banks in Nigeria.

1.5 Scope of the Study

The study focuses on credit risk management and deposit money bank performance in Nigeria. The population of the study is the entire deposit money banks licensed in Nigeria. However, a convenient sample of 10 banks will be selected, over the period of 2014 - 2018.

1.6 Significance of the Study

i. The study will be able to depict clearly the benefits derived by every bank or financial institutions that employ required techniques in managing its credit risk and also reveal the relevance of coordinating effort that contribute to the overall financial institutions ultimate goal in order to minimize risk and maximize return. The result of this study will be significant in the following areas.

ii. It will provide clear understanding of company and consumer risk that improves the understanding of credit decisions to financial analyst.

iii. It will provide information to planners in coming up with strategies, design and plans that will strategically position them in the highly competitive, diverse and complex business environment that is experience at present.

iv. It will equip bankers, staff and credit analyst with the knowledge to initiate and manage risk asset profitably with minimal losses both for structured and unstructured businesses in the corporate and middle market.

1.7 Limitations of the Study

This study will be limited to the effect of credit risk management on deposit money banks in Nigeria, as such the findings will be limited to Nigeria alone. Also, the limitation of this study may be the problem of error on the part of researcher in extracting consistent and accurate data from relevant data source. Other limitation will also stem from setback and pitfall of the various preliminary test and estimation techniques that will be employed in the cause of the study. Again interms of measurement of variables, 100% cannot be guaranteed, but effort will be made to minimize errors and finally, the method of data analysis may not be sophisticated enough or appropriate for a study of this nature. However, efforts will be made such that the results from the study are accurate and reliable for policy implications.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In order to give answers to the research questions, necessary literatures will be reviewed in order to help us arrive at a solid base for answering the research questions relating to this concepts and help in taking a better decision as it bothers these concepts.

2.2 Conceptual Review

2.2.1 Credit Risk

Lending operations are core banking activities and the most profitable asset of credit institutions. In many markets, banks have to operate in the economic environment that is characterized by the existence of obstacles to good credit management. Where credit is not properly channeled, controlled and administered, it leads to a devastating effect on the banks, reducing its performance, profitability and further into bank distress and failure (Berger & Christa, 2009). Credit risk emanates from a bank's dealing with individuals, corporations, financial institutions or a sovereign. Deposit money banks are exposed to credit risk through their trading, financing and investing activities and in cases where they acts as an intermediary on behalf of customers or other third parties or it issues guarantees. The amount of credit risk exposure in this regard is represented by the carrying amounts of the loans and advances on the balance sheet (Drigă, 2012).

Kannan and Thangavel (2008), risk implies exposure to uncertainty or threat. Risk sometimes entails some economic benefits as firms may derive considerable gains by taking risk. Kaye and Lowe (2010) are of the view that risk is integral to opportunities and threats which may adversely affect an action or expected outcome. Drucker (1977) submits that business grows through greater risk taking. Hillson and Murray-Webster (2011) see risk as ‘uncertainty that matter’ in business enterprise. In support of Drucker (1977) and Hillson and Murray-Webster (2011), Olajide (2013) explains that recent economic volatility gives risk management a new focus and eminence. They are of the opinion that getting rid of risk can undermine the source of value creation which truncates potential opportunities.

Kanchu and Kumar (2013), who defined credit risk as the potential that a bank borrower or counterparty fails to meet the obligations on agreed terms. Kolapo, Ayeni and Oke (2012) defined credit risk as the exposure faced by banks when a borrower (customer) defaults in honoring debt obligations on due date or at maturity, this risk is capable of putting the bank in distress if not adequately managed. Kolapo et al (2012) and Chen and Pan (2012), viewing the concept of credit risk from another perspective, defined credit risk as the degree of value fluctuations in debt instruments and derivatives due to changes in the underlying credit quality of borrowers and counterparties. Coyle (2000) defined credit risk as losses from the refusal or inability of credit customers to pay what is owed in full and on time. Gizaw, Kebede and Selvaraj (2015) described credit risk as the risk that arises from default or delay in repayment of obligations and affects most assets held by credit institutions including loans,

marketable securities and equity interests. The Basle Committee on Banking Supervision (2001) described credit risk as the possibility of losing the outstanding loan partially or totally, due to credit events (default risk).

2.2.2 Credit Risk Management

Onaolapo (2012) differentiated between credit risk and credit risk management. The study stressed that, credit risk refers to the probability that the credit portfolio of a deposit money bank will decline in value and perhaps become worthless, while credit risk management refers to various processes designed to control and protect banks against losses associated with these risk exposures. Kithinji (2010) concluded that the credit risk framework and governance structure must be properly set up to ensure that they cover credit risk process as well as models for risk quantification and ranking. Onaolapo (2012) added that the need to mitigate a number of risk events such as self-interest of managers and impact of capital market imperfection constitute reasons advanced for credit risk management, others include credit appraisal goal and high cost of financial distress. Credit risk management also involves deploying strategies to minimize loss events arising from credit risk exposure and maintaining an optimum balance between credit risk and underlying returns. Corroborating this assertion, Kolapo, Ayeni and Oke (2012) pointed out that by maintaining credit risk exposure and deploying credit risk management tools, banks are in a position to leverage on credit risk management activities to maximize their risk adjusted rate of return. This implies that at every portfolio aggregation level, an effective credit risk management system will

ensure that credit risk exposures are appropriately priced and diversified to maintain an optimum portfolio equilibrium and acceptable risk-return trade-off. Coyle (2000), Kithinji (2010) and Ugoani (2016) also defined credit risk management as an end to end process that involves identification, measurement, monitoring and control of risk arising from the possibility that loan repayment may be defaulted. It involves a comprehensive process driven by appropriate technology, structure, policies and skilled man power to ensure that in the first place, lending decisions are a product of quality analysis and credit control.

Managing credit risk is an essential corporate function. It is a critical component of a bank's overall risk management and is fundamental to the long-term success of any banking firm. Credit risk management if deployed well can be a value enhancing activity that goes beyond regulatory compliance and can provide a competitive advantage to institutions that execute it properly. The components of effective credit risk management comprise active board management oversight; adequate policies; procedures and limits; adequate risk measurement; monitoring and management information systems; and wide internal controls (Lepus, 2004).

2.2.2.1 Counterparty/ Borrower Risk

Counterparty or borrower risk is the risk that arises to each party of a contract that the counterparty will not live up to the contractual agreement. The effect of counterparty risk is a risk to all parties involved and need consideration during the drafting and signing of contract documents. Losses due to counterparty risk may arise under the following circumstances:

1. When a consumer fails to make the payment due on say mortgage loan, credit card, a line of credit or other forms of loans
2. When a business or consumer does not pay a trade invoice when due
3. Whenever an employer fails to pay wages and salaries to employees when is due
4. When an insolvent insurance company does not honour policy obligations
5. When an insolvent bank or any other financial institution fails to pay depositors

2.2.2.2 Intrinsic/ Industry Risk

Credit risks in general terms emanate from two main risks; default risk and portfolio risk. The portfolio consists of inherent and concentration risks. In a bank's loan portfolio, credit risk arises from external (extrinsic) and internal (intrinsic) factors. The external factors include the state of the economy, changes in equity prices, foreign exchange and interest rates, restrictions in trade, economic sanctions, and government policies. The intrinsic factors have to do with certain deficiencies in loan policies and administration, lack of credit concentration limits, insufficiently defined lending limits for credit officers and credit committees, deficiencies in appraisal, depending excessively on collateral and low-risk pricing, an absence of loan review mechanism and post disbursement monitoring.

2.2.2.3 Portfolio/Concentration Risk

Concentration risk denotes the spread of a bank's outstanding loan portfolio over the number debtors. To measure concentration risk, we use a concentration ratio. It explains the percentage of the outstanding accounts each bank loan represents. When there is an economic

slowdown in a particular sector where the bank has most of its portfolio concentrated, the rate of default will overwhelm the bank. It is therefore advisable to diversify the portfolio by lending to different sectors of the economy. Concentration risks are of two types, which depend on the source of the risk. Name concentration risk arises due to uneven distribution of the exposures to its borrowers. Sectorial concentration is another type of concentration risk, which arises when there is an uneven distribution of exposures to a particular sector, region, industry or a product.

2.2.3 Bank Credit Risk Management Strategies

For an active management of credit risk, banks employ various strategies which include:

1. **Credit Policy Strategy:** This involves the use of credit manuals which contain statutory requirements on bank lending, credit approval process, credit procedure and penalties for defaulters. Such credit manuals should elicit rules and regulations guiding credit administration within the credit department of banks (Graham, 1997). Some of the methods banks use to monitor adherence to credit policy according to Lepus (2004) are
2. **Limit Checking:** This involves specifying the maximum exposure a firm is willing to take to counterparty;
3. **Credit Inspection:** This connotes having an internal audit group that inspects the quality of credit;

4. Education and Training: This method involves educating employees of the banking firm the relevance and components of credit policy. It involves enlightening employees about current policies;
5. Credit Portfolio Management: This is the process of identifying, analyzing and selecting the best combination of assets in form of loans and advances to be held by the banking firm. Credit portfolio management results in measuring and limiting credit risks taken as well as optimizing the return gained for a given level of credit risk. The objective of credit portfolio management is to improve risk adjusted returns. Credit portfolio management helps banks to analyze credit risk factors such as inflation, level of interest rates, gross domestic product (GDP) rate, and market value of collaterals (Samuel, Julius & Samuel, 2012);
6. Credit Risk Hedging: Hedging of credit risk is another credit risk strategy whereby banks control credit risks they have already acquired and make acceptable the credit risks that they about to acquire. The overall objective of credit risk hedging is to optimize the use of banks' capital, so that the risk is minimized for a given return. Hedging helps banks understand whether a deal will be profitable; allows the bank to make better economic decisions and allows better trades to occur if the right decisions are made (Lepus, 2004).The strategies for hedging credit risk include the following: Credit Derivatives; Adoption of An Effective Lending Policy; Compliance to Basel Accord; Credit Bureau; and Credit Securitization.

2.2.4 The Basel Accords on Credit Risk Management

As a result of high rate of non-performing loans (NPL) and its adverse effects, the Central Monetary Authorities came together with an agreement in December 1987 known as Basel I and II accord. Both accords underscore the relevance of capital adequacy for minimizing the adverse effects of credit risk. In banking operations, capital adequacy provides securities against unexpected financial losses (Greuning and Sonja, 2003). The Basel Accords (Basel I and Basel II), issued by the Basel Committee on Banking Supervision (BCBS), played significant roles in mitigating the adverse effect of credit defaults on bank performance. The Basel I and II were published 1988 and 2004 respectively.

Basel committee on Banking Supervision magnifies the procedures through which a bank can manage its exposure to credit risk. One of such procedures is constantly changing and reviewing their credit risk policies to fit the prevailing economic trend in the country. Secondly, banks should investigate their borrowers properly as such will lead to a better understanding of the customer they are dealing with (Basel Committee on Banking Supervision, 1999). These strategies do not prevent credit risk totally but can reduce the level of credit risk the banks are exposure to which will in turn increase the profitability performance of the banks. The Basel II is built on three pillars:

1. Minimum Capital requirement
2. Supervisory Review
3. Market Discipline

Pillar 1 addresses the minimum capital requirement, which is the rule by which banks calculate their regulatory capital. As to the Pillar 2 of Basel II, it concerns with the supervisory review process and has been a supplement to the minimum capital requirement. Therefore, it requires a regular interaction between banks and supervisors in the assessment and planning of capital adequacy (Lind, 2005). The last pillar seeks to complement these activities through a stronger market discipline by disclosure of bank's key information of risk assessment procedures and capital adequacy (Ferguson, 2003). This, to some extent, could enable market participants to assess the bank's risk profile and level of capitalization.

Despite the various provisions and guidelines of these accords, the banking system is still bedeviled with the adverse effects of inefficient credit risk management; hence, the 2007 global financial crisis indicated that the existing accords seem not to be adequate to undertake the challenges of credit risk management especially in developing economies. The need for a comprehensive accord that will strengthen the earlier provisions and guidelines by the Bank of International Settlements become inevitable. The Basel III was published in 2010 (though not yet operational until 2019) with significant innovations and detailed emphasis on not only capital adequacy, but also on moral hazard which implies events that occur after loan have been granted (Hull, 2012; Feess & Hege, 2012).

2.3 Theoretical Review

2.3.1 The Credit Risk Theory

Credit risk refers to the risk of suffering a financial loss due to the decline in the creditworthiness of counterparty in a financial transaction (Liu, Mirzaei & Vadoros, 2014). That the source of credit risk is the default risk that is the risk that a counterparty will not fulfill the contractual obligations. The risk is primarily that of the lender and includes lost principal and interest, disrupt loss may be complete or partial and can arise in a number of circumstances, such as an insolvent bank unable to return funds to a depositor.

Credit risk theory was introduced in 1974 by Robert Merton in his theory of default or default model which is the basic theory of credit risk. Robert proposed a model for assessing the credit risk of a company by characterizing the company's equity as a call option on its assets. There are two main methods of modeling credit risk which include the structural approach and the intensity based approach (also known as reduced form approach). Leveraging on Merton model, three important approaches to measuring credit risk was derived by Clifford V. Rossi. These include; the concept of credit spreads, credit portfolio management and loss distribution generated through Monte Carlo simulation. To reduce the lenders risk, the lender may perform a credit check on the prospective borrower, may require the borrower to take appropriate insurance, such as mortgage insurance or seek security or guarantees of third parties. In general, the higher the risk, the higher will be the interest rate that the debtors will be asked to pay on the debt (Owojori, Akintoye & Adidu, 2011).

2.3.2 Commercial Loan Theory

The oldest theory of banking is the commercial loan theory, also called the real bills doctrine. The commercial loan theory holds that banks should lend only on short term, self-liquidating, commercial paper. According to Hosna & Manzura, (2009), the commercial loan theory is geared to influence persuasively both the bank lending and the general economic activities. Strict adoption of this theory will reveal that it is expected to serve as a monetary supply to changes in aggregate economic activity. The popularity of this doctrine among Deposit-Money Banks (DMBs) in Nigeria is evident. Nigerian bankers believe that since their resources were repayable at short notice, such depositors' monies should be employed accordingly in short-term loans.

Kargi, (2011) posited that the strong tie to this conception is rather orthodox if consideration is given to the fact that at the time of the supremacy of the theory, there were little or no secondary reserve assets, which could have served as a liquidity buffer for the bank. More so, this theory fails to consider the credit needs of Nigeria's developing economy. It has not encouraged banks to fund the purchases of plants, equipment, land, and home-ownership. For a theory to maintain that all loans should be liquidated in the normal course of business shows its failure to recognize the relative stability of bank deposits. Whereas, demand deposits are on demand, all depositors are not likely to demand payment at the same time. Thus, stability of deposits enables a bank to extend funds for a reasonable long period without danger of illiquidity. Though, with its flaws, the commercial loan theory, or real bills

doctrine has been a persistent theory of banking. Vestiges of it still remain in the structure of bank regulatory agencies, bank examination procedures and the thinking of many bankers. One cannot understand contemporary banking without an understanding of our banking history, and cannot understand banking history without an understanding of the commercial loan theory.

2.3.3 The Shiftability Theory

This theory assumes that assets need not be tied on only self-liquidating bills, but also held in other shiftable open-market assets, such as government securities (Moti, Masinde, & Mugenda, (2012). It must be noted that the shiftability theory did not replace the commercial loan theory or made it to be invalid. Instead, the shiftability theory took a more general view of the banking business by broadening the list of assets deemed legitimate for bank ownership. The shiftability theory does not say that commercial loan are inappropriate bank assets, it does say that commercial loans are not the only appropriate asset. The thrust of the shiftability theory holds that the liquidity of a bank depends on its ability to shift its assets to someone else at a predictable price. Thus, for example, it would be quite acceptable for a bank to hold short-term open market investments in its portfolio of assets. According to Hosna & Manzura, (2009)), the shiftability theory had a profound effect on banking practices can hardly be denied. What it did, basically was to redirect the attention of bankers and the banking authorities from loans to investments as a source of bank liquidity. Indeed, proponents of the theory argued that the liquidity of short-term, commercial loans was largely

fictional in any case. According to Kargi, (2011), as with the commercial loan theory, however, the shiftability theory contained a serious flaw. (Actually, this flaw did not lie so much in the theory itself-it was well understood by the various writers on the subject as it did in the bank management practices to which the theory led). The defect of the theory was simply this: Although one bank could obtain needed liquidity by shifting its assets, the same thing was not true of all banks taken together.

2.3.4 The Anticipated Income Theory

The Anticipated Income Theory was developed by H.V. Prochnow in 1944 using the US commercial banks practice. According to this theory, regardless of the nature and character of a borrower's business, the bank should plan the liquidation of the term-loan (loan between one to five years) from the anticipated income of the borrower. This theory places emphasizes on the ability of the bank to advance loan base on the income that the borrower expects both in the short-term and long-term. The bank tries to link their loan, both medium and long term, on the borrowers expected income. Thus a loan by the bank gets repaid out of the future income of the borrower in instalments, instead of in a lump sum at the maturity of the loan. The bank advances more loan when the expected incomes are regular and can be expected as at when due. This will in turn help the bank to manage its credit risk efficiently, since bank management can plan its credit base on expected income.

It is also generally known as "cash flow approach" to lending. This theory dominates the commercial loan theory and the shiftability theory as it satisfies the three major objectives of

liquidity, safety and profitability. Properly understood, this theory was a rival only to the commercial loan theory. It focused attention on the types of loans appropriate for a bank to make but came to quite a different conclusion than that reached by the advocates of the commercial loan theory (Moti, Masinde & Mugenda, 2012).

Kolapo, Ayeni, and Oke (2012), one striking thing with this theory is its “future-oriented approach” to bank loans and advances. It is also generally known as “cash flow approach” to lending. Properly understood, this theory was a rival only to the commercial loan theory, not the shift ability theory. It does not question the shiftability view that a bank’s most fundamental source of liquidity is its secondary reserves. Rather, it again focused attention on the types of loans appropriate for a bank to make but came to quite a different conclusion than that reached by the advocates of the commercial loan theory (Moti, Masinde, & Mugenda, (2012).

2.3.5 The Liability Management Theory

This theory holds that it is unnecessary to observe traditional standards since reserve money can be borrowed or obtained in the money market using short term debt instruments whenever a bank experiences reserve deficiency. According to Shafiq & Nasr, (2010), it does not mean that the bank manages only its liabilities and passive with respect to its assets.

Rather, the theory continues to recognize that the asset structure of the bank has a prominent role to play in providing the bank with liquidity. But the theory takes a one-dimensional approach to liquidity and argues that the bank can also use its liabilities for liquidity purposes.

A bank wants liquidity for deposit withdrawal purposes and also to meet the reasonable loan requests of its customers. Not only are bank loans profitable but a bank that won't or can't make loans to its depositors when they need funds is not likely to keep those depositors for very long.

2.4 Empirical Review

Liyuqi (2007) examined the determinants of bank's profitability and its implications on risk management practices in the United Kingdom. The study employed regression analysis on a time series data between 1999 and 2006. Six measures of determinants of bank's profitability were employed. He proxied internal determinants of bank's performance as liquidity, credit and capital. GDP growth rate, interest rate and inflation rate were used as external determinants of banks profitability. The six variables were combined into one overall composite index of bank's profitability. ROA was used as indicator of bank's performance. It was found that liquidity and credit risk have negative impact on bank's profitability. **Poudel** (2012) appraised the impact of the credit risk management in bank's financial performance in Nepal using time series data from 2001 to 2011. The result of the study indicates that credit risk management is an important predictor of bank's financial performance. **Fredrick** (2010) also demonstrated that credit risk management has a strong impact on bank's financial performance in Kenya. Meanwhile, **Jackson** (2011) towed the line of **Fredrick** (2010) by using CAMEL indicators as independent variables and ROE as a proxy for banks performance. His findings were also in line with that of **Fredrick** who also concluded that

CAMEL model can be used as proxy for credit risk management. Musyoki and Kadubo (2011) also found that credit risk management is an important predictor of bank's financial performance. They concluded that banks success depends on credit risk management.

Hakim and Neamie (2001) as documented in Ariffin and Kassim (2009) examine credit risk and bank's performance in Egypt and Lebanon banks in the 1990s by using data for banks from the two countries over the period 1993–1999, the study estimates an ordinary least squares regression (OLS) model of bank return with varying intercepts and coefficients. The findings show that credit variable is positively related to profitability, while liquidity variable is insignificant across all banks and have no impact on profitability.

The study also finds a strong link between capital adequacy and commercial bank return, with high capitalization being the hindrance to return.

The study concludes that the capital is a sunk cost with large banks realizing high profits in absolute but not in percentage terms.

Burner (2010) observed that a reduction in real risk-free rates of interest to historically low levels led to credit expansion in a ferocious search for yield among investors. Major financial crisis around the world can be attributed to inordinate ambition to return excellent return to their owners by decision makers and the board, thereby taking excess risk to boost stock prices.

Adeusi et al. (2013) focused on the association of credit risk management practices and bank financial performance in Nigeria. Using a secondary data for 10 banks and for four years

reported an inverse relationship between financial performance of banks and doubtful loans, capital asset ratio was found to be positive and significant. Similarly it suggests that the higher the managed funds by banks, the higher the performance. The study concludes a significant relationship between banks performance and risk management. Hence, the need for banks to practice prudent risks management in order to protect the interests of investors.

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

Epure and Lafuente (2012) examined bank performance in the presence of risk for Costa-Rican banking industry during 1998–2007 using correlation and regression techniques. The results showed that performance improvements follow regulatory changes and that risk explains differences in banks and NPLs negatively affect efficiency and ROAs while the capital adequacy ratio has a positive impact on the NIM.

Kithinji (2010) assessed the effect of credit risk management on the profitability of commercial banks in Kenya. Data on the amount of credit, level of NPLs and profits were collected for the period 2004–2008. The findings revealed that the bulk of the profits of

commercial banks are not influenced by the amount of credit and NPLs, therefore suggesting that other variables other than credit and NPLs impact on profits. Kolapo et al. (2012) investigated the relationship between bank performance and credit risk management using panel data regression for the period 2000–2010. It could be inferred from their findings that ROE and ROAs both measuring profitability were inversely related to the ratio of non-performing loan to total loan of financial institutions thereby leading to a decline in profitability. Ahmad and Ariff (2007) examined the key determinants of credit risk of commercial banks on emerging economy banking systems compared with the developed economies. The study found that regulation is important for banking systems that offer multi-products and services; management quality is critical in the cases of loan dominant banks in emerging economies. An increase in loan loss provision is also considered to be a significant determinant of potential credit risk. The study further highlighted that credit risk in emerging economy banks is higher than that in developed economies.

Ben-Naceur and Omran (2008) in attempt to examine the influence of bank regulations, concentration, financial and institutional development on commercial banks' margin and profitability in Middle East and North Africa (MENA) countries from 1989 to 2005 found that bank capitalization and credit risk have positive and significant impact on banks' NIM, cost efficiency and profitability.

Al-Khouri (2011) assessed the impact of bank's specific risk characteristics, and the overall banking environment on the performance of 43 commercial banks operating in 6 of the Gulf

Cooperation Council countries over the period 1998–2008. Using OLS regression analysis, results showed that credit risk, liquidity risk and capital risk are the major factors that affect bank performance when profitability is measured by ROAs while the only risk that affects profitability when measured by ROE is liquidity risk.

Ahmed et al. (1998) in their study found that loan loss provision has a significant positive influence on NPLs. Therefore, an increase in loan loss provision indicates an increase in credit risk and deterioration in the quality of loans consequently affecting bank performance adversely. Furthermore, Hakim and Neamie (2001) also as documented in Ariffin and Kassim (2009) examine credit risk and bank's performance in Egypt and Lebanon banks in the 1990s by using data for banks from the two countries over the period 1993–1999, the study estimates a fixed effects model of bank return with varying intercepts and coefficients. The findings show that credit variable is positively related to profitability, while liquidity variable is insignificant across all banks and have no impact on profitability. The study also finds a strong link between capital adequacy and commercial bank return, with high capitalization being the hindrance to return. The study concludes that the capital is a sunk cost with large banks realizing high profits while analyzing the credit risk management efficiency in Nigerian commercial banking sector from 2004 through 2009, Onaolapo (2012) provides some further insight into credit risk management as profit enhancing mechanism. They used regression analysis and found rather an interesting result that there is a minimal causation between deposit exposure and bank's performance. Muhammed et al. (2012) used

descriptive, correlation and regression techniques to study whether credit risk affect banks performance in Nigeria from 2004 to 2008.

Adebawo and Enyi (2014) examined the impact of credit risk exposure on the market value of Nigerian Banks from 2006 to 2012 using correlation and Ordinary Least Square (OLS). Credit risk exposure model was used to predict the impact of credit risk exposure on the performance of the 18 banks listed on the Nigerian Stock Exchange as at December 31, 2012 including the 3 nationalized banks together with secondary data which were tested statistically. The findings revealed that banks' credit risk exposure did not have a strong influence on their market value and performance at $F = .793$ with P value of .513 significance. Conclusively, banks' risk analysis is an indispensable aspect of credit assessment and the credit risk exposure model developed for the study was found to be effective in predicting credit risk exposure for all the banks. The study recommended that banks' management should comply fully with statutory provisions.

Abiola and Olausi (2014) investigated the impact of credit risk management on the performance of commercial banks in Nigeria. Financial reports of seven commercial banking firms were used to analyze for seven years (2005 – 2011). The panel regression model was employed for the estimation of the model. In the model, Return on Equity (ROE) and Return on Asset (ROA) were used as the performance indicators while Non-Performing Loans (NPL) and Capital Adequacy Ratio (CAR) as credit risk management indicators. The findings revealed that credit risk management has a significant impact on the profitability of

commercial banks' in Nigeria. The study also revealed that commercial banks with higher capital adequacy ratio can better advance more loans and absorb credit losses whenever they crop up and therefore record better profitability. Thus recommended that the regulatory authorities should pay more attention to banks' compliance to relevant provisions of the Bank and other Financial Institutions Act 1991 and prudential guidelines. Ojiong, Okpa and Egbe (2014) conducted an investigation on the impact of credit and liquidity risk management on the profitability of deposit money banks in Nigeria, it adopted the Pearson product moment correlation. The results of the study revealed that there is a significant relationship between credit management and bank profitability and there is a significant relationship between bank liquidity and profitability among deposit money banks in Nigeria. The study conclude that deposit money banks must set up effective system of internal controls to monitor the risk control mechanisms in use in order to ensure complete compliance with bank philosophy and it recommends that banks should always maintain a balance between depositloan ratio in order to avoid asset liabilities mismatch. This system of control for credit, are usually not always effective as some customers still default in paying their loan.

Ejoh, Okpa and Egbe (2014) investigated the impact of credit risk and liquidity risk management on the profitability of deposit money banks in Nigeria with particular reference to First bank of Nigeria Plc. Descriptive research design was used for the study where questionnaires were administered to a sample size of eighty (80) respondents. The data obtained were presented in tables and analyzed using simple percentages. The formulated

hypotheses were tested using the Pearson product moment correlation. The results of the study revealed that there is a significant relationship between credit management and bank profitability and there is a significant relationship between bank liquidity and profitability among deposit money banks in Nigeria. Based on the findings, it was recommended that deposit money banks should set up effective system of internal controls to monitor the risk control mechanisms in use in order to ensure complete compliance with bank philosophy. Again, banks should always maintain a balance between deposit-loan ratios in order to avoid asset liabilities mismatch.

Alshatti (2015) examined the influence of management of credit risk on the financial performance of thirteen commercial banks in Jordanian for the period of 2005 to 2013. Non-performing loans to gross loans, provision for facilities loss to net facilities and the leverage ratio were used as a measure of management of credit risk. ROA and ROE were used as a measure of financial performance. Findings of the study revealed that the indicators of credit risk management have a significant influence on the financial performance of commercial banks in Jordanian. In the same vein, Kishori and Jeslin (2017) discovered various factors relevant to credit risk management and its influence on the financial performance of selected banks in India for the period of 2001-2011. Findings of the study revealed that credit risk management have a significant negative effect on the financial performance of the bank.

Ogbulu and Eze (2016) investigated the impact of credit risk management on the performance of deposit money banks in Nigeria using the ECM and Granger causality

techniques in addition to the IRF and VDC methodology. Data for the study were sourced from the CBN Statistical Bulletin and the Annual Reports and Accounts of the NDIC for the period 1989 to 2013. The findings indicated that the selected credit risk management indicators significantly impacted on the performance of deposit money banks measured as return on equity, return on total assets, and return on shareholders' fund respectively. However, the findings reported no evidence of significant granger causality relationship between the various credit risk management indicators and the various measures of performance except for a uni-directional granger causality relationship from ROE to RNPD and from ROTA to RNPS respectively. Based on the foregoing, the study recommended that deposit money banks in Nigeria should always pay particular attention to their credit risk management policies in order to significantly improve on the performance of these banks.

Nwanna and Oguezue (2017) examined a study titled investigated a study titled Effect of Credit Management on Profitability of Deposit Money Banks in Nigeria. The study employed multiple regression analysis in Eviews 9. The findings of the study reveal that loans and advances and loan loss provision have positive and significant effect on profitability, while nonperforming loan has a negative and insignificant effect on profitability. The study concludes that management of banks should evaluate credit request before granting any form of loan to customer(s) to circumvent high rate of non-performing loan. It recommends that the banks should ensure that customers have verifiable guarantors and collateral before granting them loan. The rapid increase in Non-performing loan in most deposit banks shows

that some deposit money banks may not be complying with guidance issued by regulating agencies in charge of loan facilities across the banks

Hamza (2017) examined the impact of credit risk management on performance of commercial banks in Pakistan. The pooled regression was adopted to determine the impact of credit risk management on two performance methods. The findings revealed that credit risk management is inversely associated with bank performance. For return on asset (ROA) analysis revealed that capital adequacy ratio (CAR), Loan loss provision ratio (LLPR), liquidity ratio (LR) and Nonperforming loan ratio (NPLR) variables have significant impact on return on assets (ROA). The Loan loss provision ratio (LLPR), liquidity ratio (LR) and Non-performing loan ratio (NPLR) have negative while the capital adequacy ratio (CAR), loan and advances (LAR), and SIZE have positive impact on the return on assets. In relation to return on equity, the CAR, LAR and LLPR variables have significant impact on ROE. Therefore concluded that the credit risk management have inverse relationship with bank performance. Thus the management needs to be cautious about nonperforming loans, loan and advances and liquidity ratio because these ratios are severely affecting the profitability of banks. Moreover, capital adequacy contributes positively in bank performance so it should be managed.

Ajayi and Ajayi (2017) examined the effects of credit risk management on the performance of deposit money banks in Nigeria from 2001-2015. The study employed panel regression analysis in which Profit after Tax (PAT) was used as proxy for bank performance while Non-

Performing Loan Ratio (NPLR), Loan Loss Provision Ratio (LLPR), Loan to Total Asset Ratio (LTAR) and Cost per Loan Ratio (CPLR) were used as indicators of credit risk management. Fixed effect, random effect and Hausman test were conducted on the variables. This study revealed that banks profitability is negatively influenced by NPLR, LLPR and CPLR. While LTAR influences performance of banks positively. The study therefore concluded that deposit money banks in Nigeria have a high growth rates on loans and advances, with corresponding high rate of non-performing loans by customers. Also, the provisions for loan loss were slightly below the required amount 8% by Basel Accord with high administration costs. The study thus recommended that Nigerian banks should ensure high quality credit management and strict adherence to professional banking ethics. Also, deposit money banks should make adequate effort toward deposit mobilization and reduce credit administrative cost so as to be more efficient and enhance profitability.

Collins, M-epbari, Sira and Grend (2018) examined the effect of credit management and bank performance in Nigeria. The study adopted cross sectional survey design. The population of the study consisted of all management staffs of commercial banks operating in Nigeria. The sample sizes of eleven (11) select commercial banks were considered by systematic technique. The Purposive sampling technique was adopted with six respondents administered questionnaire (Bank Manager and five senior staff) from each bank to make up a 66 respondents for the study. Multiple regression analysis was adopted for the study to determine the influence/effects of credit management variables (Credit Appraisal, Credit Risk

Control, and Collection policy) on bank performance. The study revealed that credit management has a significant effect on bank performance in Nigeria. The study also revealed that among the credit management variables considered, credit risk control has the highest driving force for bring about an effect financial performance of bank in Nigeria. The study recommended that financial institution should not only take credit management serious, but should recognized the role of credit risk section if they aim at increasing profitability.

Olabamiji and Michael (2018) examined the influence of credit management practices on financial performance of Nigerian banks with specific reference to First bank Plc. Data was collected using Purposive sampling technique from thirty (30) respondents as a sample size used to collect data from the respondents. Both descriptive and inferential statistics were used to analyze data, such as frequency, percentage, weighted mean score, and multiple regression. The result revealed that credit management practices have a significant positive influence on the financial performance of First bank. The study concluded that client appraisal, credit risk control, and collection policy are major predictors of financial performance of First bank. Subsequently, the study recommended that management of other banks should learn from First bank by enhancing their client appraisal techniques, credit risk control and adopting a more stringent policy to improve their financial performance. Ndubuisi and Amedu (2018) studied the Relationship between Credit Risk Management and Bank Performance in Nigeria using Fidelity Bank Nigeria PLC as a case study. The statistical analysis for the study was done using Pearson Correlation Coefficient. The findings of the study reveal that there is

weak significant relationship between credit risk management and bank performance in Nigeria. The study conclude that there is no significant relationship between credit risk management and bank performance in Nigeria and it recommend that deposit money banks should establish sound competent risk management units which must adopt best practice in risk management. This is however contradictory to the findings of Ndubuisi & Amedu, 2018; Nwanna & Oguezue, 2017) who emphasized that there is positive relationship between credit risk management and performance of deposit banks.

Gadzo, Oduro, and Asiedu (2019) investigated the Impact of credit risk on corporate financial performance, using data from listed banks on the Ghana stock exchange, and the data was analyzed using regression analysis. The result from the study indicates that variables such as capital adequacy, operating efficiency, profitability, and net interest margin are inversely related to credit risk. Conversely, bank size and financing gap tend to relate positively with credit risk. The study concludes that capital adequacy, operating efficiency, profitability, and net interest margin are inversely related to credit risk. Conversely, bank size and financing gap tend to relate positively with credit risk. Also, annualized changes in inflation tend to positively affect credit risk. Again, it was observed that, increase in bank credit risk negatively affects corporate financial performance. This result is however, completely different from other researchers (Li & Zou, 2014; Nwanna & Oguezue, 2017) who were of the view that credit risk have positive and proportional relationship with profitability of deposit money banks.

Aigbomian and Akinlosotu (2017) investigated credit risk management and profitability in deposit money banks in Ekpoma, Edo State-Nigeria. Descriptive research design was adopted covering all the nine (9) Deposit Money Banks in Ekpoma-Edo State. One hundred and fifty (150) bankers were drawn as sample from six deposit money banks in the area. The two instruments used in the study include: Banks' Credit risk Management Practices (BACRIMAP) for data on credit risk management practices and Profitability Satisfaction Inventory (PSI) to collect data on profitability indices of banks. Data were analyzed with percentages (%), frequency distribution table, Mean and standard deviation while the hypotheses were tested with Bivariate Pearson Product Moment Correlation (PPMC) using Statistical Package for Social Sciences (IBM SPSSR). Results showed that: credit derivatives, credit Securitization, and adoption of a sound internal lending policy are the credit management strategies used in deposit money banks in Edo State. Findings further revealed that credit risk management has positive significant relationship with profitability of deposit money banks.

Taiwo, Ucheaga, Achugamonu, Adetiloye, Okoye and Agwu (2017) empirically investigate the quantitative effect of credit risk management on the performance of Nigeria's Deposit Money Banks (DMBs) and Bank lending growth over the period of 17 years (1998- 2014). Secondary data for empirical analysis was obtained from CBN Statistical bulletin 2014 and World Bank (WDI) 2015. The study employed multiple linear regression model to analyze the time series data. The findings revealed that credit risk management has an insignificant

effect on the growth of total loans and advances by Nigerian Deposit money banks. The result showed that sound credit management strategies can boost investors and savers confidence in banks and lead to a growth in funds for loans and advances which leads to increased bank profitability.

Nwanna and Oguezue (2017) examined the nexus between credit management and profitability (ROA) of Deposit Money Banks (DMBs) in Nigeria context for the period of 2006 to 2015. The study employed multiple regression technique in analyzing the data that gathered using ordinary least square. The study found that loans and advances and loan loss provision have positive and insignificant effect on profitability, while non-performing loan has a negative and insignificant effect on profitability. Thus, the study concluded that sound credit management heightens profitability and holds the financial strength of the DMBs. It was recommended that DMBs should put in place sound credit management policies and practice. Issue recoverable loan and advances and provide for loan losses for desired credit risk exposure and increased profitability.

Oduro, Asiedu and Gadzo (2019) studied the effect of credit risk on corporate financial performance: evidence from listed banks on the Ghana stock exchange. The study identified the factors that determine the level of bank credit risk and also estimated the effects of bank credit risk on corporate financial performance from 2003 to 2017. Using the method of 2SLS, the study found that variables such as capital adequacy, operating efficiency, profitability, and net interest margin are inversely related to credit risk; while bank size and financing gap

tend to relate positively with credit risk. Therefore, increase in bank credit risk negatively affects corporate financial performance in accordance with Basel accord. Thus, critical attention is paid to credit risk exposure by the management.

Kajola, Babatunji, Olabisi and Babatolu (2019) investigated the effect of credit management on financial performance of ten listed deposit money banks in Nigeria for the period, 2005 - 2016. Using Non-performing Loan to total Loan Ratio (NPLLR); Non-performing Loan to total Deposit Ratio (NPLDR) and Capital Adequacy Ratio as surrogate for credit management and Return on asset (ROA) and Return on equity (ROE) for financial performance, the study utilized random effects generalized least squares (GLS) regression as its data estimation technique. The study found that that all the three credit risk parameters have a significant relationship with ROA and ROE. The study recommended that the management of deposit money banks should develop rigorous and robust credit policies that would assist banks to effectively assess the creditworthiness of their customers. In addition, the regulatory agencies were advised to come up with modern credit risk measurements, identification and control; while prompt and necessary action should also be taken against the management of any bank that flouts their credit risk guidelines to prevent unpleasant distress in the financial system.

2.5. Review Summary

Several works motivated this research as highlighted in the empirical review. Among such works are Adeusi et al. (2013), Boahene et al. (2012), Epure and Lafuente (2012), Kolapo et

al. (2012), Muhammed et al. (2012), Onaolapo (2012), Poudel (2012), Al-Khourri (2011), Jackson (2011), Kargi (2011), Musyoki and Kadubo (2011), Fredrick (2010), Hosna et al. (2009), Ariffin and Kassim (2009), Liyuqi (2007) and Hakim and Neamie (2001) who with regression analysis found significant relationship between credit risk management and profitability of banks. They mainly employed ROE and ROA as measures of bank performance and a ratio of NPLs to total asset as proxy for credit risk management. Even though the survival of many banks depends on its effective risk management strategies, only few studies have actually investigated concepts of risk management in deposit money banks with the aim of statistically determining their impact on bank performance in Nigeria. More so, the relationships that exist between risk management and bank performance have not received the desired attention in finance literatures. The need to fill the aforementioned knowledge gaps justifies the relevance of this study. Against this background, the need to carry out this research becomes necessary in order to objectively and empirically examine the impact of risk management and the performance of Nigerian deposit money banks.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

The aim of this chapter is to state the methodology to be used in carrying out this research, that is, to appraise the system of explicit rules and procedures upon which the research is based and against which claims for knowledge are evaluated. Data collected are related to the hypothesis, which are the problems under study. The secondary instruments were used in the gathering of information.

3.2 Research Design

The cross-sectional survey research design was adopted in the study because the data were collected at a particular point in time.

3.3 Theoretical Framework

This research study is based on the credit risk theory. Credit risk refers to the risk of suffering a financial loss due to the decline in the creditworthiness of counterparty in a financial transaction (Liu, Mirzaei & Vadoros, 2014). That the source of credit risk is the default risk that is the risk that a counterparty will not fulfill the contractual obligations. The risk is primarily that of the lender and includes lost principal and interest, disrupt loss may be complete or partial and can arise in a number of circumstances, such as an insolvent bank unable to return funds to a depositor.

Credit risk theory was introduced in 1974 by Robert Merton in his theory of default or default model which is the basic theory of credit risk. Robert proposed a model for assessing the credit risk of a company by characterizing the company's equity as a call option on its assets. There are two main methods of modeling credit risk which include the structural approach and the intensity-based approach (also known as reduced form approach).

Leveraging on Merton model, three important approaches to measuring credit risk was derived by Clifford V. Rossi. These include; the concept of credit spreads, credit portfolio management and loss distribution generated through Monte Carlo simulation. To reduce the lenders risk, the lender may perform a credit check on the prospective borrower, may require the borrower to take appropriate insurance, such as mortgage insurance or seek security or guarantees of third parties. In general, the higher the risk, the higher will be the interest rate that the debtors will be asked to pay on the debt (Owojori, Akintoye & Adidu, 2011).

3.4. Population of the Study

The population of this study is made up of ten deposit money banks listed on the floor of the Nigerian Stock Exchange as at 31st December, 2018.

3.5. Sample Size and Sampling Technique

Simple random sampling method was used to select 75% of the total deposit money banks from the banking sector giving a sample size of 10 deposit money banks quoted on the floor of Nigeria stock exchange within the period of 2014 to 2018. The rationale for 75% of Insurance companies is due to the researcher accessibility to listed banks data.

3.6 Sources of Data

The nature of this study necessitated the use of secondary data. The data for the selected quoted deposit money banks will be sourced from the fact-book of the Nigerian Stock Exchange and the annual reports and accounts.

3.7 Model Specification

The first and most important step the researcher has to take in attempting the study of any relationship between variables is to express the relationship mathematically that is to specify the model with which it will be explored empirically. In the model specification below, the researcher intends to investigate the relationship between credit risk management and the performance of deposit money banks in Nigeria.

The model is specified and discussed below:

$$ROA = f(LAA, NPL, CAR) \text{ ----- (1)}$$

The econometric form of the model is expressed below;

$$ROA = \alpha_0 + \alpha_1 LAA + \alpha_2 NPL + \alpha_3 CAR + \mu$$

When ROA is Return on assets

LAA = Loans and advances

NPL = Non-performing loans

CAR = Interest rate risk

Apriori expectation of the coefficients

$$\alpha_1, \alpha_3 > 0, \alpha_2 < 0$$

3.8 Method of Data Analysis

Cross-sectional data of ten banks for 2014 - 2018 will be used for the analysis using an ordinary least squares (OLS) regression technique with the aid of Eviews 9.0. The reason for using cross-sectional analysis is because data is kept annually in Nigeria for all quoted firms and the choice of estimation technique (OLS) is because, when used on cross-sectional data, it tends to yield an unbiased and consistent result.

3.9 Measurement of Variables

Variables	Types	Codes	Proxy/measurement
Return on assets	Dependent	ROA	This is measure with the ratio of net profit to total assets
Loans and advances	Independent	LAA	This is the value of total loans and advances of a company made in a financial year
Non-performing loans	Independent	NPL	This is proxy with amount of bad debt
Capital adequacy ratio	Independent	CAR	This is the ratio of bank capital to interest rate risk

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION OF RESULT

4.1 Introduction

This chapter contains the presentation, analysis and interpretation of the data collected for the purpose of this research work. Consequently, it entails the application of statistical technique to provide the basis for the testing of the research hypotheses raised earlier at the introductory section of the study. It is a vital part of any research work since it forms the basis for recommendations and conclusion at the end of the research. The preliminary analysis of the data is evaluated using descriptive and correlation analysis. The regression analysis was conducted using the Ordinary Least Square method. The E-views 9.0 econometric software is used for the summary statistics as well as the econometric estimation. The results are presented and interpreted below;

The analysis of the data gathered for the study is presented below.

4.2 Data Analysis

4.2.1 Descriptive Statistics

The descriptive statistics of the model is presented in table 4.1

Table 4.1: Descriptive Statistics

	ROA	LAA	NPL	CAR
Mean	0.018067	7.91E+08	1.67E+08	422.4448
Median	0.018282	5.88E+08	1.16E+08	478.2607
Maximum	0.061537	2.14E+09	6.57E+08	3164.823
Minimum	-0.095318	8958127.	29282289	-12206.09
Std. Dev.	0.021306	5.73E+08	1.34E+08	2449.898
Skewness	-2.671764	0.688397	1.596538	-4.010025
Kurtosis	17.52593	2.318364	5.542195	19.92888
Jarque-Bera	499.0751	4.917065	34.70518	731.0588
Probability	0.000000	0.085560	0.000000	0.000000
Sum	0.903364	3.96E+10	8.34E+09	21122.24
Sum Sq. Dev.	0.022243	1.61E+19	8.86E+17	2.94E+08
Observations	50	50	50	50

Source: Eviews, 9.0, 2021

The descriptive statistics of the variables used in the analysis presented in Table 4.1 explains the range, minimum, maximum, mid values, spread and normality of the variables. The mean value of ROA is 0.018067. It had a maximum value of 0.061537 and a minimum value of value of 0.061537 revealing a low variation thereby showing some degree of variability. ROA was however skewed to the left with a value of -2.67 and not normally distributed because the p-value of 0.00 is less than 0.05.

The mean values of all the explanatory variables are positive. All the explanatory variables are positively skewed to the right except CAR which is -4.01. For the explanatory variables, the result indicates that the mean values for loans and advances, non-performing loans and

capital adequacy ratio are 7.91, 1.67 and 422.4 respectively. The result is so because we are studying different companies. All the kurtosis values are not more than 3 except loans and advances and all the variables are skewed to the left except foreign ownership. The Jarque-Bera values are less than 0.05 except loans and advances which indicate that the variables are not normally distributed.

4.2.2 Correlation Analysis

In an attempt to examine the association between the dependent and independent variables, the correlation matrix was utilized. The correlation matrix highlights the association between all the variables used in the study.

Table 4.2: Correlation Analysis

Covariance Analysis: Ordinary
 Date: 06/15/21 Time: 13:10
 Sample: 2014 2018
 Included observations: 50

Correlation t-Statistic Probability	ROA	LAA	NPL	CAR
ROA	1.000000 ----- -----			
LAA	0.450952 3.500416 0.0010	1.000000 ----- -----		
NPL	0.288313 2.086075 0.0423	0.725295 7.299108 0.0000	1.000000 ----- -----	
CAR	0.622646 5.512835 0.0000	0.153708 1.077727 0.2865	0.077545 0.538870 0.5925	1.000000 ----- -----

Source: Eviews, 9.0, 2021

The correlation coefficient in table 4.2 shows a mixed correlation of both positive and negative values. In the opinion of Dwivedi (2008) the correlation coefficient should not exceed 0.90; otherwise the independent variables that show a relationship in excess of 0.90 may be suspected of exhibiting multicollinearity. A closer look at the coefficients results in the matrix revealed that to a large extent all the variables coefficients are not more than 0.90. This means that there is absence of multicollinearity problem in our model. Multicollinearity between explanatory variables may result to wrong signs or implausible magnitudes, in the estimated model coefficients, and the bias of the standard errors of the coefficients.

On the association among the independent variables, we can observe that both positive and negative associations exist among all the variables. Most of the coefficients are quite low and moderate.

4.2.3 Regression Analysis

To examine the relationship between relationship between credit risk management and the performance of deposit money banks in Nigeria. Multiple regression analysis was performed employing the ordinary least squares method of estimation. The results are presented below:

Table 4.3: Regression Result

Dependent Variable: ROA
 Method: Panel Least Squares
 Date: 06/15/21 Time: 13:06
 Sample: 2014 2018
 Periods included: 5
 Cross-sections included: 10
 Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.005493	0.003783	1.451758	0.1534
LAA	1.46E-11	5.58E-12	2.622421	0.0118
NPL	-6.55E-12	2.36E-11	-0.277360	0.7827
CAR	4.92E-06	9.02E-07	5.448486	0.0000
R-squared	0.517748	Mean dependent var		0.018067
Adjusted R-squared	0.486297	S.D. dependent var		0.021306
S.E. of regression	0.015271	Akaike info criterion		-5.449157
Sum squared resid	0.010727	Schwarz criterion		-5.296195
Log likelihood	140.2289	Hannan-Quinn criter.		-5.390908
F-statistic	16.46195	Durbin-Watson stat		1.732752
Prob(F-statistic)	0.000000			

Source: Eviews 9.0, 2021

Signs, Coefficient and Significance of Variables

Table 4.3 shows the relationship between relationship between credit risk management and the performance of deposit money banks in Nigeria. Loans and advances has a positive and significant relationship with the performance of deposit money banks in Nigeria. Non-performing loans has a negative and statistically insignificant relationship with the performance of deposit money banks in Nigeria. Lastly, capital adequacy ratio shows a positive and statistically significant relationship with the performance of deposit money banks in Nigeria.

Coefficient of Determination and F-Statistics

The results show that about 52% of systematic variations in the dependent variable are explained by the independent variables of leaving 49% unaccounted for by the error term. This figure further reduces to about 49% when the R-squared statistics is further adjusted for degree of freedom. This means that other factors apart from the independent variables are responsible for the performance of deposit money banks in Nigeria. The F-statistics which measures the robustness of the variables put together indicates a high level of significance at 1% and thus shows that the explanatory variables have been well and carefully selected.

Testing for Autocorrelation

The autocorrelation test result using the D-W statistics shows that there's no autocorrelation in the model as the D-W statistics value 1.7 is not close to 2. Therefore, we can conclude that there is low level of autocorrelation problem in the model.

4.3 Discussion of Findings/Hypotheses Testing

Hypothesis 1

Loans and advances (LAA) do not have any significant effect on the performance of deposit money banks in Nigeria.

The relationship between loans and advances is positive and statistically significant at the 10% level. The variable reported t-value of 2.6 and a p-value of 0.01. Therefore, we reject the null hypothesis which state that there is no significant relationship between loans and

advances and performance of DMB performance in Nigeria. This agrees with the findings of Achy, (2013); Adam, (2011) and Nazmi, (2015).

Hypothesis 2

H₂: Non-performing loans (NPL) do not have any significant effect on the performance of deposit money banks in Nigeria.

The relationship between non-performing loans and DMBs performance is negative and statistically insignificant at the 5% level. The variable reported t-value of -0.28 and a p-value of 0.8. Therefore, we fail to reject the null hypothesis which state that non-performing loans (NPL) do not have any significant effect on the performance of deposit money banks in Nigeria. This conforms to the result of Omoke & Ugwuanyi (2010) and Ozdemir & Erbil (2008).

Hypothesis 3

Capital adequacy ratio (CAR) does not have any significant effect on the performance of deposit money banks in Nigeria.

The relationship between capital adequacy ratio and DMBs performance is positive and statistically significant at 5% conventional level. The variable reported t-value of 5.4 and a p-value of 0.00. Therefore, we reject the null hypothesis which state that capital adequacy ratio (CAR) does not have any significant effect on the performance of deposit money banks in Nigeria. This conforms to the results of Oshikoya (2010) and Ozdemir & Erbil (2008).

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The focus of this chapter is to summarize the findings, draw conclusions reached in the study and make recommendations based on research objectives and the overall perspective of the main findings while making suggestions for further studies. The chapter is arranged as follows: section 5.2 summary of findings, section 5.3 covers the conclusion; section 5.4 enumerates the recommendations.

5.2 Summary of Findings

This study sought to examine the relationship between credit risk management and the performance of deposit money banks in Nigeria. To facilitate this study, various hypotheses were stated on the relationship between credit risk management and the performance of deposit money banks in Nigeria. within the period of 2014 to 2018. The Ordinary Least Squares econometric tools was employed to empirically examine the relationship.

In particular, the following specific findings were made from the empirical analysis:

- (i) There exist a positive and statistically significant relationship between loans and advances and DMBs performance in Nigeria.
- (ii) There exist a negative and statistically insignificant relationship between non-performing loans and DMBs performance in Nigeria.

- (iii) There exist a positive and statistically significant relationship between capital adequacy ratio and DMBs performance in Nigeria.

5.3 Conclusion

This study examined the relationship between credit risk management and the performance of deposit money banks in Nigeria within the period of 2014 to 2018. Results revealed that credit risk management has a positive and significantly affect the performance of deposit money banks in Nigeria. In summary, the findings demonstrate succinctly, that the selected credit risk management indicators under study significantly affect the performance of deposit money banks in Nigeria. But the measure of relationship differs according to the different performance indicators. Therefore, the result of our econometric tests leads us to conclude that there is a significant relationship between the various credit risk management indicators employed in this study and the performance of deposit money banks in Nigeria.

5.4 Contributions(s) to Knowledge

This research study contributes immensely to knowledge, because it helps to improve the body of the existing literature on the relationship between credit risk management and DMBs performance. This research study can also serve as a policy document for policy makers in time of policy formulation.

5.5 Recommendations

Based on the findings of the study, these recommendations are made,

- i. Management needs to be cautious in setting up a credit policy that will not negatively affect the operations of their banks in order to ensure judicious utilization of deposits and maximization of profit.
- ii. CBN for policy making purpose should regularly assess the lending attitudes of deposit money banks and effective cash management policies to avoid insolvency in the financial system.
- iii. To increase credit volume, the interest rate policy must be considered within the frame of economic circumstances of the time for low interest rate does facilitate quick repayment and drastically minimize debt failure.
- iv. Determining the credit worthiness of a customer whether individual or corporate organization must be carefully planned. A rush into the approval of loan without sourcing adequate and relevant information on the prospective borrowers must be avoided if the bank wishes to circumvent delays in the recovery of debt.

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APPENDIX

Covariance Analysis: Ordinary
 Date: 06/15/21 Time: 13:10
 Sample: 2014 2018
 Included observations: 50

Correlation t-Statistic Probability	ROA	LAA	NPL	CAR
ROA	1.000000 ----- -----			
LAA	0.450952 3.500416 0.0010	1.000000 ----- -----		
NPL	0.288313 2.086075 0.0423	0.725295 7.299108 0.0000	1.000000 ----- -----	
CAR	0.622646 5.512835 0.0000	0.153708 1.077727 0.2865	0.077545 0.538870 0.5925	1.000000 ----- -----

	ROA	LAA	NPL	CAR
Mean	0.018067	7.91E+08	1.67E+08	422.4448
Median	0.018282	5.88E+08	1.16E+08	478.2607
Maximum	0.061537	2.14E+09	6.57E+08	3164.823
Minimum	-0.095318	8958127.	29282289	-12206.09
Std. Dev.	0.021306	5.73E+08	1.34E+08	2449.898
Skewness	-2.671764	0.688397	1.596538	-4.010025
Kurtosis	17.52593	2.318364	5.542195	19.92888
Jarque-Bera Probability	499.0751 0.000000	4.917065 0.085560	34.70518 0.000000	731.0588 0.000000
Sum	0.903364	3.96E+10	8.34E+09	21122.24
Sum Sq. Dev.	0.022243	1.61E+19	8.86E+17	2.94E+08
Observations	50	50	50	50

Dependent Variable: ROA
 Method: Panel Least Squares
 Date: 06/15/21 Time: 13:06
 Sample: 2014 2018
 Periods included: 5
 Cross-sections included: 10
 Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.005493	0.003783	1.451758	0.1534
LAA	1.46E-11	5.58E-12	2.622421	0.0118
NPL	-6.55E-12	2.36E-11	-0.277360	0.7827
CAR	4.92E-06	9.02E-07	5.448486	0.0000
R-squared	0.517748	Mean dependent var		0.018067
Adjusted R-squared	0.486297	S.D. dependent var		0.021306
S.E. of regression	0.015271	Akaike info criterion		-5.449157
Sum squared resid	0.010727	Schwarz criterion		-5.296195
Log likelihood	140.2289	Hannan-Quinn criter.		-5.390908
F-statistic	16.46195	Durbin-Watson stat		1.732752
Prob(F-statistic)	0.000000			

DATA

S/N	COY	YEA R	TA	PAT	LA	BD	BC	IR	ROA	LAA	NPL	CAR
1	ACCESS	2018	3,968,114,608	73,596,295	1,681,761,862	251,251,383	440,799,756	2,190,356.00	0.018546918	1681761862	251251383	201.2457135
		2017	3,499,683,981	51,335,460	1,771,282,739	302,106,706	465,238,725	2,177,770.00	0.014668599	1771282739	302106706	213.6307898
		2016	3,094,960,515	61,677,124	1,594,562,345	243,952,418	419,329,609	2,169,260.00	0.019928243	1594562345	243952418	193.305371
		2015	2,411,944,061	65,868,773	1,243,215,309	78,516,655	360,428,904	2,120,314.00	0.027309412	1243215309	78516655	169.9884564
		2014	1,981,955,730	39,941,126	1,019,908,848	73,155,391	274,155,786	2,005,474.00	0.02015238	1019908848	73155391	136.7037349
2	FIDELIT Y	2018	1,719,883,000	22,926,000	849,880,000	240,767,000	194,416,000	1,520,514.00	0.013329977	849880000	240767000	127.8620256
		2017	1,379,214,000	17,768,000	768,737,000	213,233,000	201,361,000	1,173,663.00	0.0128827	768737000	213233000	171.5662844
		2016	1,298,141,000	5,457,000	718,401,000	159,035,000	185,402,000	1,056,412.00	0.004203704	718401000	159035000	175.5016035
		2015	1,231,722,000	13,904,000	578,203,000	141,975,000	183,516,000	958,314.00	0.011288261	578203000	141975000	191.4988198
		2014	1,187,025,000	13,796,000	541,686,000	117,541,000	173,111,000	876,152.00	0.011622333	541686000	117541000	197.5810133
3	GTB	2018	2,712,521,494	166,919,765	1,067,999,019	177,361,218	511,842,259	2,537,984.00	0.061536753	1067999019	177361218	201.6727682
		2017	2,824,928,985	158,727,705	1,265,971,688	210,671,384	578,576,776	2,351,016.00	0.056188211	1265971688	210671384	246.0964859
		2016	2,613,340,074	126,836,792	1,417,217,952	332,317,881	473,707,243	2,174,632.00	0.048534362	1417217952	332317881	217.83329
		2015	2,277,629,224	94,308,123	1,265,207,443	338,580,300	405,608,348	1,867,402.00	0.041406267	1265207443	338580300	217.2046233
		2014	2,126,608,312	89,170,777	1,182,393,874	252,830,895	359,912,076	1,652,482.00	0.041930983	1182393874	252830895	217.8009055
4	UNION	2018	1,324,297,000	18,438,000	428,037,000	94,975,000	200,087,000	197,000.00	0.013922859	428037000	94975000	1015.670051
		2017	1,334,921,000	12,839,000	488,555,000	95,736,000	319,119,000	230,000.00	0.009617798	488555000	95736000	1387.473913
		2016	1,123,483,000	11,239,000	489,890,000	91,812,000	250,669,000	165,000.00	0.010003712	489890000	91812000	1519.206061
		2015	1,000,976,000	18,035,000	348,984,000	76,059,000	216540000	157,423.00	0.018017415	348984000	76059000	1375.529624
		2014	922,755,000	20,486,000	302,372,000	78,135,000	223581000	132,000.00	0.022200909	302372000	78135000	1693.795455
5	WEMA	2018	477,915,742	3,359,259	252,189,613	34,401,023	50,998,879	97,000.00	0.007028978	252189613	34401023	525.7616392

		2017	384,779,809	2,301,158	215,840,031	36,627,761	49,692,140	57,000.00	0.005980454	215840031	36627761	871.7919298
		2016	421,221,036	2,591,800	227,008,550	29,282,289	45,102,324	45,000.00	0.006153064	227008550	29282289	1002.273867
		2015	396,743,314	2,273,205	185,596,590	52,289,916	37,125,894	56,000.00	0.005729662	185596590	52289916	662.9623929
		2014	382,562,312	2,372,445	149,293,849	58,381,728	31,215,746	32,000.00	0.00620146	149293849	58381728	975.4920625
6	UBA	2018	3,591,305,000	78,607,000	1,213,801,000	657,134,000	364,598,000	186,321.00	0.021888144	1213801000	657134000	1956.827196
		2017	4,069,474,000	77,548,000	1,173,214,000	502,209,000	400,860,000	174,265.00	0.019056025	1173214000	502209000	2300.289789
		2016	3,504,470,000	72,264,000	1,090,355,000	259,927,000	390,900,000	123,514.00	0.020620522	1090355000	259927000	3164.823421
		2015	2,752,622,000	59,654,000	822,694,000	129,896,000	338,231,000	136,482.00	0.021671701	822694000	129896000	2478.209581
		2014	2,762,573,000	47,907,000	884,587,000	113,797,000	281,933,000	125,796.00	0.017341442	884587000	113797000	2241.192089
7	ZENITH	2018	4,955,445,000	165,480,000	1,736,066,000	458,463,000	675,032,000	2,309,643.00	0.03339357	1736066000	458463000	292.2668135
		2017	4,833,658,000	153,003,000	1,980,464,000	418,979,000	697,983,000	2,134,658.00	0.031653667	1980464000	418979000	326.9764993
		2016	4,283,736,000	113,885,000	2,138,132,000	292,802,000	610,953,000	1,985,362.00	0.026585439	2138132000	292802000	307.7287668
		2015	3,750,327,000	98,784,000	1,849,225,000	212,636,000	546,946,000	1,745,821.00	0.026340103	1849225000	212636000	313.2887049
		2014	3,423,819,000	93,479,000	1,580,250,000	198,066,000	512,707,000	1,542,318.00	0.027302553	1580250000	198066000	332.4262571
8	STERLING	2018	1,085,876,000	9,468,000	621,017,000	119,526,000	98,009,000	234,189.00	0.008719228	621017000	119526000	418.503858
		2017	1,068,798,000	7,954,000	598,073,000	212,847,000	101,599,000	215,486.00	0.007442005	598073000	212847000	471.4877069
		2016	830,803,000	5,182,000	468,250,000	82,450,000	85,681,000	226,158.00	0.006237339	468250000	82450000	378.8546061
		2015	799,451,000	10,293,000	338,726,000	60,286,000	95,565,000	187,325.00	0.012875086	338726000	60286000	510.1561457
		2014	824,538,000	9,005,000	371,276,000	45,371,000	84,715,000	174,658.00	0.010921267	371276000	45371000	485.0336085
9	UNITY	2018	235,976,190	1,269,434	43,657,372	124,180,055	243,686,964	26,230.00	0.0053795	43657372	124180055	9290.391308
		2017	156,506,504	-14,917,938	8,958,127	80,546,364	242,193,155	19,842.00	0.095318326	8958127	80546364	12206.08583
		2016	492,681,647	2,183,798	277,214,521	81,908,685	83,106,980	85,136.00	0.004432473	277214521	81908685	976.1673088
		2015	443,321,012	4,689,157	246,143,129	70,294,256	82,574,531	62,429.00	0.01057734	246143129	70294256	1322.695078

		2014	413,305,111	10,765,175	219,335,346	45,499,812	76,263,995	54,766.00	0.026046557	219335346	45499812	1392.542727
10	STANBI C	2018	1,663,661,000	74,440,000	432,713,000	69,918,000	239,667,000	127,458.00	0.044744693	432713000	69918000	1880.360589
		2017	1,386,416,000	48,381,000	372,088,000	74,892,000	279,803,000	111,635.00	0.034896452	372088000	74892000	2506.40928
		2016	1,053,523,000	28,520,000	352,965,000	96,037,000	174,252,000	107,635.00	0.027071075	352965000	96037000	1618.91578
		2015	937,564,000	18,891,000	353,513,000	81,107,000	168,157,000	92,536.00	0.020149024	353513000	81107000	1817.206276
		2014	851,631,000	21,250,000	341,260,000	73,263,000	106,147,000	87,227.00	0.024952121	341260000	73263000	1216.905316