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Credit Risk Management in Commercial Banks

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Abstract: *The study examined credit risk and management in Nigeria Commercial Banks. From the findings it is concluded that banks profitability is inversely influenced by the levels of loans and advances, non-performing loans and deposits thereby exposing them to great risk of illiquidity and distress. Therefore, management need to be cautious in setting up a credit policy that will not negatively affects profitability and also they need to know how credit policy affects the operation of their banks to ensure judicious utilization of deposits and maximization of profit. Improper credit risk management reduce the bank profitability, affects the quality of its assets and increase loan losses and non-performing loan which may eventually lead to financial distress. CBN for policy purposes should regularly assess the lending attitudes of commercial banks. One direct way is to assess the degree of credit crunch by isolating the impact of supply side of loan from the demand side taking into account the opinion of the firms about banks' lending attitude.*
Keywords: *credit, risk, management, commercial banks.*

I. Introduction

Commercial banks are the most important savings, mobilization and financial resource allocation institutions. Consequently, these roles make them an important phenomenon in economic growth and development. In performing this role, it must be realized that banks have the potential, scope and prospects for mobilizing financial resources and allocating them to productive investments. Therefore, no matter the sources of the generation of income or the economic policies of thecountry, commercial banks would be interested in giving out loans and advances to their numerous

Customers bearing in mind, the three principles guiding their operations which are, profitability, liquidity and solvency. However, commercial banks decisions to lend out loans are influenced by a lot of factors such as the prevailing interest rate, the volume of deposits, the level of their domestic and foreign investment, banks liquidity ratio, prestige and public recognition to mention a few.

Credit creation is the main income generating activity for the banks. But this activity involves huge risks to both the lender and the borrower. 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. 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 that risk that can easily and most likely prompts bank failure (Achou, 2008). The very nature of the banking business is so sensitive because more than 85% of their liability is deposits from depositors (Saunders, Cornett, 2005). Banks use these deposits to generate credit for their borrowers, which in fact is a revenue generating activity for most banks. This credit creation process exposes the banks to high default risk which might led 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. Credit risk is one of the most general risks that exist in the financial market and a major risk faced by financial institutions (Duffie and Singleton, 2003). Credit risk generally refers to the risk that a borrower will default on any type of debt by failing to make payments which it is obligated to do. An investigation of real risk assets allocation of banks conducted by McKinsey & Company (1997) demonstrates that credit risk exposure takes up to 60.0% of risks that banks face while market risk and operational risk take 20.0% respectively. The recognition, measurement, control and management of credit risk are, therefore, very important for banks. There is no financial institution that could avoid the above risks.

Credit risk management has long been the focus of governments, regulatory authorities and financial institutions. Contemporary economy is basically a credit economy which has been based on the trusts of different entities. By trust, the lender has the ability that based on the repayment of book value and interest in a certain time or period, to receive money, goods or service (Wu, 2002). Government bonds, enterprise loans, consumer loans, credit swaps are typical examples of credit products used under a credit economy. No doubt, a credit economy is born with risks. Default occurs when, for example, the bond issuers could not meet their promised obligations or the quality of the bonds has been changed due to other reasons in the market. Serious breach of credit contracts can lead to the loss of banks and even bankruptcy.

The present study is to examine credit risk management in commercial banks in Nigeria.

II. Literature Review

The deregulation of the financial system in Nigeria embarked upon from 1986 allowed the influx of banks into the banking industry. As a result of alternative interest rate on deposits and loans, credits were given out indiscriminately without proper credit appraisal (Philip, 1994). The resultant effects were that many of these loans turn out to be bad. It is therefore not surprising to find banks to have non-performing loans that exceed 50 per cent of the bank's loan portfolio. The increased number of banks over-stretched their existing human resources capacity which resulted into many problems such as poor credit appraisal system, financial crimes, accumulation of poor asset quality among others (Sanusi, 2002). The consequence was increased in the number of distressed banks.

However, bank management, adverse ownership influences and other forms of insider abuses coupled with political considerations and prolonged court process especially as regards debts recovery created difficulties to reducing distress in the financial system (Sanusi, 2002). Since the banking crisis started, the Central Bank of Nigeria (CBN) has had to revoke the licenses of many distressed bank particularly in the 1990's and recently some banks has to be bailout. This calls for efficient management of risk involving loan and other advances to prevent reoccurrences.

Robert and Gary (1994) state that the most obvious characteristics of failed banks is not poor operating efficiency, however, but an increased volume of non-performing loans. Non-performing loans in failed banks have typically been associated with regional macroeconomic problems. DeYoung and Whalen (1994) observed that the US Office of the Comptroller of the Currency found the difference between the failed banks and those that remained healthy or recovered from problems was the caliber of management. Superior mangers not only run their banks in a cost efficient fashion, and thus generate large profits relative to their peers, but also impose better loan underwriting and monitoring standards than their peers which result to better credit quality.

Koehn and Santomero (1980), Kim and Santomero (1988) and Athanasoglou et al. (2005), suggest that bank risk taking has pervasive effects on bank profits and safety. Bobakovia (2003) asserts that the profitability of a bank depends on its ability to foresee, avoid and monitor risks, possible to cover losses brought about by risk arisen. This has the net effect of increasing the ratio of substandard credits in the bank's credit portfolio and decreasing the bank's profitability (Mamman and Oluyemi, 1994). The banks supervisors are well aware of this problem, it is however very difficult to persuade bank mangers to follow more prudent credit policies during an economic upturn, especially in a highly competitive environment. They claim that even conservative mangers might find market pressure for higher profits very difficult to overcome.

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A high level of financial leverage is usually associated with high risk. This can easily be seen in a situation where adverse rumours, whether founded or precipitated financial panic and by extension a run on a bank. According to Umoh (2002) and Ferguson (2003) few banks are able to withstand a persistent run, even in the presence of a good lender of last resort. As depositors take out their funds, the bank hemorrhages and in the absence of liquidity support, the bank is forced eventually to close its doors. Thus, the risks faced by banks are endogenous, associated with the nature of banking business itself, whilst others are exogenous to the banking system.

Owojori et al (2011) highlighted that available statistics from the liquidated banks clearly showed that inability to collect loans and advances extended to customers and directors or companies related to directors/managers was a major contributor to the distress of the liquidated banks. At the height of the distress in 1995, when 60 out of the 115 operating banks were distressed, the ratio of the distressed banks' non-performing loans and leases to their total loans and leases was 67%. The ratio deteriorated to 79% in 1996; to 82% in 1997; and by December 2002, the licences of 35 of the distressed banks had been revoked. In 2003, only one bank (Peak Merchant Bank) was closed. No bank was closed in the year 2004. Therefore, the number of banking licences revoked by the CBN since 1994 remained at 36 until January 2006, when licences of 14 more banks

were revoked, following their failure to meet the minimum re-capitalization directive of the CBN. At the time, the banking licences were revoked, some of the banks had ratios of performing credits that were less than 10% of loan portfolios. In 2000 for instance, the ratio of non-performing loans to total loans of the industry had improved to 21.5% and as at the end of 2001, the ratio stood at 16.9%. In 2002, it deteriorated to 21.27%, 21.59% in 2003, and in 2004, the ratio was 23.08% (NDIC Annual Reports- various years).

In a collaborative study by the CBN and the Nigeria Deposit Insurance Corporation {NDIC} in 1995, operators of financial institutions confirmed that bad loans and advances contributed most to the distress. In their assessment of factors responsible for the distress, the operators ranked bad loans and advances first, with a contribution of 19.5%.

In 1990, the CBN issued the circular on capital adequacy which relate bank's capital requirements to risk-weighted assets. It directed the banks to maintain a minimum of 7.25 percent of risk-weighted assets as capital; to hold at least 50 percent of total components of capital and reserves; and to maintain the ratio of capital to total risk-weighted assets as a minimum of 8 percent from January, 1992. Despite these measure and reforms embodied in such legal documents as CBN Act No. 24 of 1991 and Banks and other financial institutions (BOFI) Act No.25 of 1991 as amended, the number of technically insolvent banks increased significantly during the 1990s.

The role of bank remains central in financing economic activity and its effectiveness could exert positive impact on overall economy as a sound and profitable banking sector is better able to withstand negative shocks and contribute to the stability of the financial system (Athanasoglou et al, 2005). Therefore, the determinants of bank performance have attracted the interest of academic research as well as of bank management. Studies dealing with internal determinants employ variables such as size, capital, credit risk management and expenses management. The need for risk management in the banking sector is inherent in the nature of the banking business. Poor asset quality and low levels of liquidity are the two major causes of bank failures and represented as the key risk sources in terms of credit and liquidity risk and attracted great attention from researchers to examine the their impact on bank profitability.

Credit risk is by far the most significant risk faced by banks and the success of their business depends on accurate measurement and efficient management of this risk to a greater extent than any other risk (Giesecke, 2004). Increases in credit risk will raise the marginal cost of debt and equity, which in turn increases the cost of funds for the bank (Basel Committee, 1999).

To measure credit risk, there are a number of ratios employed by researchers. The ratio of Loan Loss Reserves to Gross Loans (LOSRES) is a measure of bank's asset quality that indicates how much of the total portfolio has been provided for but not charged off. Indicator shows that the higher the ratio the poorer the quality and therefore the higher the risk of the loan portfolio will be. In addition, Loan loss provisioning as a share of net interest income (LOSRENI) is another measure of credit quality, which indicates high credit quality by showing low figures. In the studies of cross countries analysis, it also could reflect the difference in provisioning regulations (Demirgiic-Kunt, 1999).

Risks faced by commercial banks are generally classified into eight categories: credit risk, market risk, interest risk, liquidity risk, operational risk, legislative risk and reputation risk (Basel Committee, 1999). Steinwand (2000) categorises the major risks faced by commercial banks as follows:

Table 1. Major risks faced by commercial Banks

Financial risks	**Operational risks**	**Strategic risks**
Credit risk	Transaction risk	Governance risk
Transaction risk	Human resources risk	Ineffective oversight & poor governance structure
Portfolio risk	Information & technology risk	
Liquidity risk	Fraud Risk	
Market risk	Legal& Compliance risk	Reputation risk
Interest rate risk	External business risks	
Foreign exchange risk	Event risks	
Investment portfolio risk		

Among these risks, credit risk is the most special one as it depends predominately on customers and the most important one for commercial banks. The 2008 global financial crisis is the typical example of the consequences of banks' credit risk (Shehzad and Haan, 2013). The knowledge and usage of appropriate methods to monitor, measure, manage, control and mitigate credit risk are essential for every commercial bank and for the banking sector as a whole.

Main Causes of Credit Risk

Table 2. Causes of credit risks

S/N	Various causes of credit risk
1	Inadequate supervision by the central bank
2	Government interference
3	Poor lending practices
4	Laxity in credit assessment
5	Poor loan underwriting
6	Poor credit assessment
7	Reckless lending
8	Massive licensing of banks
9	Directed lending
10	low capital and liquidity levels
11	volatile interest rates
12	inappropriate credit policies
13	limited institutional capacity
14	Inappropriate laws

Credit risk can be caused by a variety of reasons of both internal and external sources. The main sources of credit risk recognised in the literature (e.g., Nijskens and Wagner, 2011; Breuer, Jandacka, Rheinberger and Summer, 2010; Qian and Strahan, 2007; Saunders and Allen, 2002) include, for example, poor governance and management control, inappropriate laws, limited institutional capacity, inappropriate credit policies, volatile interest rates, low capital and liquidity levels, directed lending, massive licensing of banks, poor loan underwriting, reckless lending, poor credit assessment, poor loan underwriting, laxity in credit assessment, poor lending practices, government interference and inadequate supervision by the central bank. The literature has identified these reasons that could lead to potential credit risk. The extent of credit risk incurred varies across sectors and countries.

Credit risk is often considered as a consequence of systemic risk derived from the macro perspective. Systemic risk represents the larger financial problems caused by the inability of financial market participants to meet repayment obligations on extensions of credit (e.g., Fukuda, 2012; Giesecke and Kim, 2011; Nijskens and Wagner, 2011; Wagner and Marsh, 2006). The problem is systemic because the inability of one participant to pay may lead to an inability of other participants to meet credit obligations. This domino effect played out in the market during the mortgage crisis of 2009 (Giesecke and Kim, 2011; Nijskens and Wagner, 2011). The rash of foreclosures caused by a lack of payments on mortgage loans led to mortgage companies being unable to meet financial obligations. This spread throughout the market, causing a lockup in liquidity where banks refused to lend money for fear of insurmountable financial risk.

There are also internal factors that can cause credit risk of financial institutions. For example, one of the internal factors is the financial incentives provided to the employees of a bank. Those people have a strong tendency to opportunism and moral hazards by lending to poorly performing firms and individuals with questionable credit records. The World Development Report (2012) by the World Bank shows that, in the condition of uncertainty and information asymmetry, it is hard to design an incentive system for bank employees who are in charge of credit and lending.

Credit Risk Management: Approaches

Over the past century, various approaches to measure and manage credit risk have been developed. Some of the popular approaches in which commercial banks manage their credit risk include credit portfolio models, internal ratings, exposure limit, and stress testing. For example, stress testing is often used by commercial banksto manage their credit risks. Stress testing is done to overcome some of the drawbacks of risk models that are overly dependent on historical data, and to test the specific risk parameters which define the model. Based on the limited inputs, these models can sometimes cause an underestimation of risk. Stress testing typically allows testing based on a combination of different scenarios including shocks and conceived scenarios, and is often applied to firm-wide portfolios to capture the complete risk along different lines of business. Stress testing is now a regulatory requirement in certain countries since it helps ensure that companies maintain adequate capital levels.

Most commercial banks manage their credit risk include credit portfolio models, internal ratings, exposure limit, and stress testing have their own internal credit models that they use for risk management. Credit portfolio models differentiate credit risk based on different parameters such as industry, geography, credit grade, etc. A numerical simulation is run to generate a large number of scenarios, simulating various states of the economy and the resulting impact of each on the credit portfolio value. With this analysis, portfolio managers can make decisions on what should be the ideal composition of the portfolio, based on their risk appetite and

performance targets. Crouhy, Galai and Mark (2000) provide a comparative analysis of current credit risk models and they particularly review the current proposed industry sponsored Credit Value-at-Risk .

The Way Forward

The effective management of credit risk is a critical component of risk management and indispensable for the long-term success of any commercial bank.

A variety of approaches can be adopted by a financial institution to mitigate its credit risk. They include, among others,

i. Risk-based pricing: This is a tool which firms use to calculate the interest rates on loans given based on the probability of default, or the risk on the loan.
ii. Covenants: Firms incorporate very strict covenants in their deal contracts. Such covenants generally require the debtor to meet certain conditions such as maintaining a required capital level, or prohibit him from carrying out certain actions.
iii. Credit insurance: Credit insurance covers any losses that may result from unpaid receivables. It also covers bankruptcies as well as late payments.
iv. Credit derivatives: These derivative instruments provide protection against the credit risk of the underlying asset of the derivative.
v. Collaterals: The counterparty bearing the credit risk in a deal asks the opposite counterparty for collateral, which the party at risk holds till the deal is completed
vi. Engaging in credit guarantee scheme (CGS): Credit risk mitigation can either take the form of funded or unfunded protection. Guarantees are one form of unfunded credit risk mitigation. Because the protection is unfunded it relies exclusively on the creditworthiness of the guarantor. Consequently, the most creditworthy guarantees are likely to be those provided by government. Hway-Boon, Muzafar, Alias and Azali. (2003) carry out a research about credit guarantee agency in developing countries and find that banks are reluctant to lend to SMEs due to the high credit risk involved.

III. Conclusion

The study examined credit risk and management in Nigeria Commercial Banks. From the findings it is concluded that banks profitability is inversely influenced by the levels of loans and advances, non-performing loans and deposits thereby exposing them to great risk of illiquidity and distress. Therefore, management need to be cautious in setting up a credit policy that will not negatively affects profitability and also they need to know how credit policy affects the operation of their banks to ensure judicious utilization of deposits and maximization of profit. Improper credit risk management reduce the bank profitability, affects the quality of its assets and increase loan losses and non-performing loan which may eventually lead to financial distress. CBN for policy purposes should regularly assess the lending attitudes of commercial banks. One direct way is to assess the degree of credit crunch by isolating the impact of supply side of loan from the demand side taking into account the opinion of the firms about banks' lending attitude. Finally, strengthening the securities market will have a positive impact on the overall development of the banking sector by increasing competitiveness in the commercial banks. When the range of portfolio selection is wide people can compare the return and security of their investment among the banks and the securities market operators. As a result banks remain under some pressure to improve their financial soundness.

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