

Credit Risk Management Evaluation and Bank Management Effectiveness: 1995 – 2015 Dimensionality

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Abstract

Credit risk management is central to the success or failure of a banking institution because banks earn the greatest quantum of their interest income from interest on loans which represents a critical component of a bank's profitability. Therefore, any carelessness with regard to credit risk management automatically results to creating huge nonperforming loans which often prepares the grounds for bank distress or failure. In the 1990s and specifically in 1995, 50 percent of 120 banks became technically distressed, as they were characterized by poor management and weak liquidity ratio. For example, in 1995, the ratio of nonperforming loans to total loans was about 33 percent compared to about 5 percent in 2015, and the average liquidity ratio of banks in 1995 was 0.49, against 58.18 in 2015. Also the loans, to deposit ratio in 1995 was 58.4 and 73.21 in 2015, while the number of banks with average liquidity ratio of less than 30 percent was 50 in 1995 against 1 in 2015. Distress persisted in the Nigerian banking system in the 1990s with dwindling profitability and the erosion of shareholders' equity. In 1995, the adjusted shareholders funds was – N8791.1million against N3,240 billion in 2015, while the capital to total risk weighted asset ratio was about 67.18 percent in 1995 and only about 17.66 percent in 2015. In 1995, the ratio of nonperforming loans to shareholders' funds was about 496 percent against about 13 percent in 2015. These major performance indicators showed that there was improved credit risk management and bank management effectiveness after 1995 until 2015. The expo-facto research design was employed for the study and the result showed strong positive relationship between credit risk evaluation management and bank management effectiveness. The study was not exhaustive, and further research could examine the relationship between regulatory efficiency and the performance of deposit money banks in Nigeria. The board of directors of banks should always take measures to avoid lending arrangements over and above the repayment capacity of borrowers to reduce the creation of nonperforming loans.

Keywords: Lending arrangements; Regulatory efficiency; Board of directors; Audit committee; Risk management; Liquidity ratio; Erosion of shareholders' equity nonperforming loans; Assets quality.

1. Introduction

Risk relates to a possibility of loss. It often occurs where it is not established what the foreseeable future result will become. It is a condition where the possible outcomes in the future may be speculated with certain degree of certainty based on previous knowledge. Risk arises through some unfavourable or unpredictable conditions. In the banking business, many risks such as operational risk, liquidity risk, or credit risk often manifest. Credit risk is a major banking business risk and occurs through negligence or dishonesty of bank borrowers. Credit risk suggests that repayments of loans, advances and discounts (LADs) extended to customers may not be forthcoming as agreed or may not even be repaid at all. This therefore, calls for credit risk evaluation management and which means the identification of risk, the evaluation of its potential effect on the bank, and then adopting necessary remedies either to avoid, control, or entirely minimize its impact on the overall enterprise performance. Often the best starting point for effective credit risk management evaluation is risk analysis. This also relates to the identification of risk and its possible analysis and in relation to estimating the possibility of a loss manifesting and taking into consideration the potential effect if the loss eventually occurs. Credit risk management evaluation would then involve risk recognition, assessment and all the necessary steps for risk control. Risk control encompasses all the important measures with the aim of avoiding, eliminating or reducing the chances of loss producing events taking place (Okenwa, 1999). In the banking enterprise context, risk control involves creating an effective risk management model, appetite and culture within the bank that requires the development of a comprehensive system of risk management controls, with regard to accounting and internal controls, security procedures, and other risk control mechanisms. Bank management effectiveness is largely seen through the levels of LADs, quality, bank performance or profitability, which is also a reflection of the quality of management. The quality of bank management or management competence lies at the soul and heart of bank management effectiveness. Credit risk management evaluation is an important credit risk management process that must focus on LADs performance with regard to the original amount of the loan, the

outstanding amount, date of original approval, date of last repayment, as well as the number of repayments to date. To check diversion of funds that could lead to nonrepayment, attention must also go to the actual purpose of the loans, loans whose terms and conditions of original approval have been modified through a reduction of interest or principal payment by a different principal or by other types of restructuring of repayment terms. These processes help the bank management in complying with the prudential guidelines of the regulatory authorities; like the Central Bank of Nigeria (CBN) or the Nigeria Deposit Insurance Corporation (NDIC), for deposit money banks (DMBs). Credit risk management evaluation is also a procedure to monitor compliance with loan terms and / or loan agreements, as well as internal grade classification of a credit for the nonperforming loans (NPLs) list with regard to supervisory requirements. This is essential because the regulatory authorities use the risk-based supervisory approach that optimizes supervisory capacity and resources for encouraging prudential risk management by DMBs in Nigeria, with the hope of mitigating *systemic risk* (Agbada and Osuji, 2013; Klingebiel and Laeven, 2002; McNaughton, 1997).

1.1. Research Problem

With the benefit of banking industry experience, it is safe to say that most problems leading to bank distress and failure originate from the perspectives of poor credit risk management evaluation. When guidelines for credit approvals, disbursements, collateral appraisals and repayments are ignored a bank has *passed* itself to the *distressed* category. This is a risk that can occur either due to lack of competent bank management or collusion with fraudulent bank serial borrowers or other significant *insider dealers*. A bank is in *trembled waters* when it becomes unable to meet its financial obligations when they become due, such as interbank indebtedness as well as withdrawal obligations by depositors. This type of problem status can also arise through weak deposit base of the bank, its inability to meet the statutory capitalization requirements, and lack of competent supervision. Even though taking the best security does not make a good lending, it nevertheless provides some comfort when the bank comes under *recovery*. Unfortunately, during the bank failure syndrome in Nigeria from the late 1980s through 2011 and beyond, it was not only seen that spurious securities were used in giving out *good* money, but also DMBs, did not have adequate capital, they were obsessed with low asset quality, weak minimum liquidity ratio, among stealing and other *bad* activities. Most of the DMBs were found to be in breach of the provisions of the prudential regulations, with the board of directors (BODs) not acting consistent with its statutory duties and responsibilities, and in many cases failing to adopt written loan portfolio management policies. Some failed banks were also caught in the bad practice of *window dressing* their statements of profit and loss and annual reports, thereby violating the provisions of the International Financial Reporting Standards (IFRSs) and the requirements of the Financial Reporting Council of Nigeria (FRCN) (Dickson, 2013). This pathetic scenario exacerbated the problems in the Nigerian Financial System (NFI) that negatively affected the national economy, forcing an unprecedented bailout arrangement, emergency mergers & acquisitions, for banks to meet the capital requirements and stay afloat (Awolusi, 2012; Daojuan and Hamid, 2012; Kemal, 2011; Kumar, 2011; Owolabi and Ajayi, 2013; Umoren and Olokoyo, 2007). *Insider abuse* encouraged widespread corporate governance breaches as the result of weak credit risk evaluation management practices. There became forms of bazaar, where bank promoters, chairmen/chief executive officers (CCEOs) of many now failed banks used depositors funds to acquire their own bank shares through, *arrangee* initial public offers (IPOs), some established as many as 100 limited liability companies for the sole purpose of stealing depositors' money through the sale, or purchase of useless *blue-chip* shares that later became ordinary sheets of paper when the money had been put in other private investments and properties like the buying of private *yachts* and *jets*. Many of the disgraced bank promoters used depositors' money to buy and develop estates in *fantastic* cities around the world, and the most fraudulent among them used part of their loot to purchase useless things like *special waterbeds*. Some used the name of their sister or associated companies to obtain huge loans with the fraudulent intention of not paying and also dealing in controversial investments (Nwokoye and Ulokoaga, 2019; Oladesu, 2011; Unachukwu and Jibueze, 2021).

1.2. Research Objective

This study was designed to assess the relationship between credit risk management evaluation and bank management effectiveness.

1.3. Research Significance

This study will help bank management to refocus attention towards prudential guidelines as a framework for credit risk management evaluation. It will also help the regulatory authorities in bringing credit policies up-to-date to enhance banking operations and bank management effectiveness. Management students and researchers will find the result of this study helpful in their academic pursuits, especially in the area of bank management.

1.4. Hypothesis

To achieve the objective of the study, the following hypothesis was formulated and tested at 0.05 level of significance.

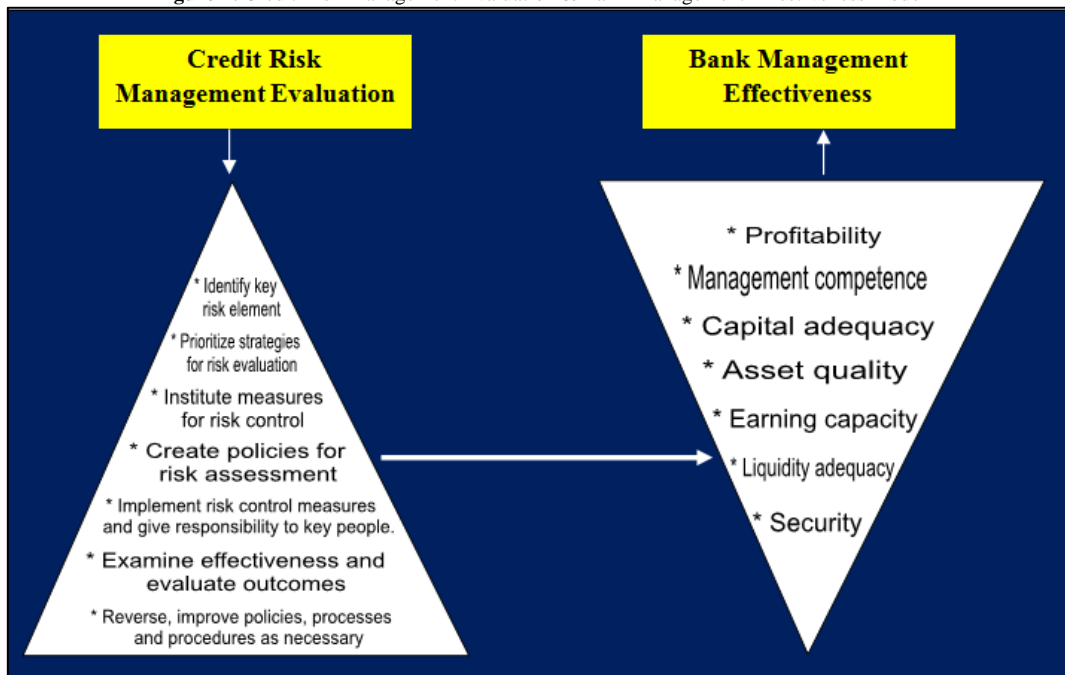
Ho: There is no relationship between credit risk management evaluation and bank management effectiveness.

Hi: There is a relationship between credit risk management evaluation and bank management effectiveness.

1.5. Conceptual Framework

A conceptual framework is the structure of the study and shows the relationship between the major variables and the research problem. It is often expressed in a diagrammatic form or a model. Models are increasingly used in management research to explain complex issues that would otherwise be buried in an excess of words. The model for this study based on the *input – output* approach, is shown in figure 1.

Figure-1. Credit Risk Management Evaluation & Bank Management Effectiveness Model



Credit risk management evaluation must follow a systematic process of identifying key risk elements through obtaining good and adequate security for bank exposures. The question of security as the last in the factors for bank management effectiveness only provides a *bed of comfort* for the bank in the event of default in loan repayment. A bank can only operate effectively when it has competent board of directors (BODs). In Nigeria for example, a bank is considered *healthy* by the CBN if it has met the mandatory capital requirement at any time, and has NPLs to total loans ratio of not more than 5 percent. It must also have a minimum cash reserve ratio of at least 6 percent as well as a minimum liquidity ratio of not less than 30 percent. A bank under sound management is expected to have not less than 10 percent ratio of its liquid assets in treasury bills and certificates and a capital adequacy ratio of at least of 8 percent. The BODs of any bank holds the ultimate responsibility for customer protection and the management of its credit risks. Sound bank management which defines the capacity of a bank's administration, must also strive to comply with all regulatory frameworks especially the prudential guidelines with special regard to credit risk evaluation and management which is critical in protecting depositors' and shareholders' funds. Banking system problems largely resulting from weak credit risk evaluation and management negatively affected the Nigerian economic system with the collapse of over one hundred banks with both depositors' and shareholders' funds swept away during the last banking crisis. The matter became so curious that The Federal Government of Nigeria (FGN) in 1991 promulgated the Banks and Other Financial Institutions Decree No. 25 (BOFID) to bring sanity into the financial system. As the tide of bank failure continued to rise at the time, the FGN also promulgated the Failed Banks (Recovery of Debts) and Financial Malpractices in Banks Decree No. 18. of 1994 to strengthen the legal framework as it relates to the recovery of nonperforming credits (NPCs) in failed banking enterprises. The FGN had to intervene in the banking system to secure the *soul* of the economy, because the BODs and management of most of the failed banks not only abandoned their important responsibilities of designing quality operational policies, systems and guidelines to reduce credit risk, they also failed to craft appropriate risk appetite guidelines and approval processes, and also failed to comply with the prevailing regulatory provisions. There were serious cases of corporate governance breaches that hugely led to the erosion of shareholders' equity in the failed banks (Campion, 2000; Champagne, 2004; Sanusi, 2010). Evaluating and managing credit risk effectively promote bank profitability which is often a central measure of bank management effectiveness. The objective of sound bank management is to minimize risk and maximize the worth of a bank as defined by its ultimate profitability and risk exposure level. This would basically suggest that a bank's profitability and its risk exposure levels are closely interrelated. Bank management must therefore, constantly keep in view this interrelationship between profitability and risk exposure, evaluation and management so as to take all necessary precautions against risks that can negatively reduce or affect profitability. This is important because in most cases, result of analysis of banks annual reports show clearly that profitability decreases with increases in NPLs. The implication is that banks then have low earning capacity, and lack quality management initiatives for better performance (Li *et al.*, 2001). Because of lack of managerial competence and integrity the CCEOs of the distressed/failed banks were sacked by the CBN in 2009, as a remedial strategy for bank management efficiency (Okorie and Uwaleke, 2010; Okwuise and Ukwandi, 2019).

2. Literature Review

Banks provide credit facilities which play very significant roles in financing economic and business activities for sustainable national development. Bank facilities are mainly in forms of overdrafts, loans or advances, among others. According to Agbada (2010) overdrafts are credit facilities for the purpose of augmenting the working capital of businesses on very short term basis. Loans on the other hand, are credit facilities granted by banks for some specific purposes that may include; investment, construction, execution of government projects, and the purchase of heavy industrial equipment, among others. Also, advances can involve cheques or drafts purchased or uncleared effects as forms of credit facilities granted to people for a specific time period. Other forms of bank credits include commercial papers or bills, as well as guarantees and indemnities. These facilities run the risk of nonrepayment that can negatively affect the health of the bank, or into a *troubled bank*. The business of banking is associated with various risks; such as liquidity risk, earnings risk, and credit risk, among others. Credit risk is the risk that the interest or the principal on LADs made to customers will not be repaid as agreed. When this situation occurs, such LADs, become nonperforming, with principal and interest failing into arrears. As the custodian of depositors' and shareholders' funds, bank management has the responsibility of minimizing credit risk and maximizing returns on shareholders' equity, consistent with the provisions of the prudential regulations. According to the prudential guidelines in order to facilitate comparability of banks, classifications of their credit portfolio, the assessment of credit risks in default, should be based on certain criteria, which includes the borrowers' repayment capacity on the basis of current financial conditions and realizable value of the collaterals provided for the exposures. According to Nzotta (2004) DMBs are required to make adequate provisions for perceived losses based on the credit portfolio to reflect their true financial condition. DMBs are also required to disclose in their annual statements an analysis of their credit portfolio categorized into performing and nonperforming loans (NPLs). DMBs are equally mandated by the prudential regulations to make objective assessment with a view to determining the extent of loss a DMB may likely suffer. A major objective of the regulatory approach is to protect depositors' and shareholders' funds and to ensure that the level of credit risk exposure of a DMB is constantly evaluated, monitored and kept at the barest minimum levels. In categorizing credit risk, the prudential guidelines emphasize that *paper profits*, which relates to interest accruing on NPLs and credited to the Profit & Loss Account of DMBs are eliminated. A goal of credit risk evaluation and management is to determine the quality of the credit portfolio and make a quantitative judgment on possible losses which the DMBs face and which bank management must accord adequate recognition. For effective credit risk evaluation and management, the prudential guidelines require bank management to categorize risk asset portfolio into: (i) Specially mentioned (ii) substandard (iii) doubtful and (iv) lost. Central Bank of Nigeria (1990) Nkwede and Nwankwo (2012), Jensen (2001), Meshack *et al.* (2011), Van Greuning and Bratanovic (2003), Alkaleri (1996).

2.1. Classification of Loans, Advances and Discounts

Classification process of LADs by the bank management is based either on experience or knowledge of the borrower(s). The term "loan" is used as a generic term to embrace all types of credit facilities like advances, loans, overdrafts, commercial papers, bankers acceptances and bills discounted.

- | | |
|------|---|
| i. | Specially Mentored Loans (SM): This category relates to loans with potential problems and weaknesses, which requires the special attention of management. This is imperative because if the problems or weaknesses are not regularized the loan would further deteriorate and result in inadequate protection of the bank's interest at a future date. SM loans basically involve (a) facilities in excess of approved limits, (b) facilities with unrealistic repayment schedule, (c) unauthorized facilities granted by lending managers, (d) lending to borrowers beyond their repayment capacities (e) facilities to customers with record of non-performing loans in other banks (f) facilities supported by inadequate or imperfect collateral, (g) absence of board borrowing resolution to support corporate debt and (h) adverse trend in borrowers' operations. |
| ii. | Substandard loans: This category relates to loans with well-defined weaknesses, which could affect the ability of the borrower to repay. Such loans are often characterized by the distinct possibility that the bank will sustain some loss if the deficiencies are not corrected. The prudential guideline stipulates 10 percent provision against possible losses over substandard loans by bank management. |
| iii. | Doubtful loans: This classification under the prudential guidelines involves loans that have all the weaknesses inherent in substandard loans with the additional characteristic that the weaknesses make collection or liquidation in full, on the basis of currently existing facts highly questionable and improbable. In this case, the possibility of loss is very high, and bank management is required to make 50 percent provision for expected losses. |
| iv. | Loss loans: Loans classified loss are considered uncollectable and of such little value that their continuance as bankable assets is not warranted and therefore, regarded as lost. Loans classified as lost require 100 percent provision under the prudential regulations. |

2.2. Classification of Investment / Other Assets and Off-Balance Sheet Items

Regulatory authorities in bank management usually evaluate investments, other assets, as well as off-balance-sheet items. Such risk evaluation often focuses on the quality, diversification and adequate maturities of the investment portfolio. An investment can be found to be susceptible to both credit risk and interest risk. To evaluate quoted investment therefore, the market price must be obtained on a balance sheet date, while in the case of unquoted investment; evaluation is made by any diminution in the value of the investment. Where applicable, bank

management is required to make necessary provisions for diminution in the value of their investments. According to [Bartrop and McNaughton \(1997\)](#) The Basle Agreement suggests that the purpose of capital is to absorb unusual losses; therefore, the measurement of capital adequacy should be related to the areas of greatest risk assets and off-balance-sheet contingencies. Therefore, a minimum capital adequacy ratio based on assets is preferable to one based on deposits. For the purpose of classification, Other Assets are such items as prepayments, impersonal accounts, of various descriptions, suspense accounts, such as cheques purchased, uncleared effects, interbranch items, and numerous items that may be long overdue or outstanding. Bank management is required to make adequate provisions for their write-off as they constitute worthless assets. On the other hand, off-balance sheet items involve items like letters of credit, bonds, guarantees, indemnities, and counter indemnities, among others: All these items are important, but items involving Foreign Exchange transactions, such as Bonds and Guarantees demand more attention in view of uncertainties of interest and exchange rates.

2.3. Recognition of Income

Loans overdue for 90 days or more should automatically be placed on 100 percent non-accrual status, and therefore, interest due thereon should not be recognized as income. The interests on such loans which had earlier been passed into the revenue account in the early life of the facilities should be reversed and credited to a suspense account specifically created for the purpose, while future interest charges should be credited to the account. In line with the provisions of prudential regulations, bank management should not take interest charges on any classified account into the revenue accounts. According to the guidelines, anything contrary is clearly tantamount to overstatement of income and the erosion of shareholders' equity, through payment as dividend ([Atoyebi and Simon, 2018](#)).

2.4. Board Audit & Risk Assessment Committee

For bank management effectiveness, the BODs of a banking enterprise is statutorily expected to establish audit and credit committees responsible for credit risk evaluation and management. In Nigeria, for example, banks are required to establish Audit Committees in compliance with Section 359(6) of the Companies and Allied Matters Act (CAMA), 1990. Such a Committee has oversight responsibility for the Bank's accounts and financial statements ([Onipe et al., 2015](#)). In the specific case of credit risk, well managed banks put in place Executive Committee, Credit (EXCO Credit) and Board Credit Committee that report to Board Audit & Risk Assessment Committee. The EXCO Credit considers loan applications above certain limits, which have been reviewed and endorsed by the Risk & Management Control Directorate. It also considers loan requests above certain limits, which need to be referred to the Board, as well as agreeing changes to the bank's credit policy or risk appetite. On the second-hand, the Board Credit Committee considers loan applications above certain limits and which have been approved by EXCO Credit. It also serves as a catalyst for credit policy changes, going from EXCO Credit to the Board for consideration and possible approval. For effective risk management, the Board Audit & Risk Assessment Committee has oversight responsibility for the internal audit and control, risk assessment, and compliance functions of the bank. In most healthy banks, and for bank management effectiveness, the Chief Internal Auditor (CIA) and the Chief Compliance Officer (CCO) interface with the Chief Financial Officer (CFO) and they have access to this Committee and report directly to the Managing Director/Chief Executive Officer (MD/CEO) of the bank. Audit is crucial in credit risk management because it generally involves an evaluation of portfolio quality and standards for classifying or valuing assets, establishment of reserves, and provisions for losses, and treatment of interest on nonperforming loans. According to [Ledgerwood and White \(2006\)](#) the Board along with top management sets the tone of the bank and establishing, and demonstrating the importance of internal controls. The Board emphasizes the examination of the overall risk-management structure of the enterprise, and is also required through a Board Audit Committee to review any and all reports from the auditors and act on them. This cannot be overemphasized because each director may be held personally responsible, and failure to comply may in some cases be punishable by law ([Ahmad-Zaluki and Wan-Huassin, 2012](#); [Al-Matan et al., 2012](#); [Bedard and Gendron, 2010](#); [Haruna and Emmanuel, 2018](#); [Hines and Peters, 2015](#); [Hoye and Lieberberg, 2015](#); [Umuoren and Enang, 2015](#)).

3. Research Methodology

The ex-post-facto research design was used in this investigation. This design was selected because data for the study were obtained from past records, and not manipulated. According to [Asika \(2006\)](#) expo-facto design involves a systematic empirical study in which the researcher does not in any form control or manipulate the independent variables because the situation for the investigation-already exists or has taken place. The expo-facto research design helps in gathering data about existing status of the phenomena so as to describe what actually exists in respect of the variables of interest. Therefore, this method was adopted because it uniquely addresses the objective of the study through examining the relationships between the variables of the study [Kothari \(2004\)](#). The population of the study composed of all the DMBs in Nigeria, and the sample was selected by the judgmental method. The sample size was determined by the sample ratio concept. Data collected from secondary sources such as annual reports of banks, Nigerian Deposit Insurance Corporation (NDIC) Central bank of Nigeria (CBN), reports, journals, books, newspapers, conference papers, and others, were organized, complement with each other, and coded in readiness for analysis. Data were analyzed through descriptive and regression statistical methods. The regression analysis was done by the Ordinary Least Square (OLS) technique. The OLS technique is a method used to estimate the unknown parameter in a linear regression model with the goal of minimizing the differences between observed variances in a dataset. The method was not only used because of its simplicity, but also due to its unique properties of linearity,

efficiency, sufficiency, least variances, and least means errors. The F-test and t-test were used to determine the overall adequacy of the regression model, using the E-view Statistical Package, and based on a unique model specification.

3.1. Model Specification

Model specification is the expression of a relationship into precise mathematical form. According to Koutsoyiannis (1977) economic theory does not indicate the functional form of any relationship. This suggests that economic theory does not state whether a relationship will be expressed in linear form, quadratic form, or in a cubic form. on the strength of this it was decided to specify the relationship between bank management effectiveness (BME) and credit risk evaluation management (CREM) as follows:

$$BAME = b_0 + CA + b_1AQ + b_2,MC + b_3,EA,$$

Where:

- BAME = Bank management effectiveness
- CA = Capital adequacy
- MC = Management competence
- EA = Earnings
- b₀ = Common term
- b₁, b₂, b₃ = Coefficient attached to
- t = Time period
- u = Stochastic error term.

4. Presentation of Result

Table-1. Comparative Asset Quality of Insured DMBs (1995/2015)

Bank	Total loans advances, and discounts (N)		Variation	Total classified loans, advances and discounts		Variation
	Year			Year		
	1995 (B)	2015 (T)		1995 (M)	2015 (B)	
All	176	13	-163	58	649	-.57
Ratio of NPLs to total loans (%)	33.00	5.00				

Source: Fieldwork (2021)

Table-2. Comparative Liquidity Status of Insured DMBs (1995/2015)

Bank	Average liquidity ratio		Loans, advances and discounts to deposit ratio		Number of banks with average liquidity ratio of less than 30%	
	Year		Year		Year	
	1995	2015	1995	2015	1995	2015
All	0.49	58.18	58.40	73.76	50	1

Source: Fieldwork (2021)

Table-3. Comparative Insured DMBs Capital Adequacy Indicators (1995/2015)

All Banks	Year	
	1995(N'M)	2015 (N'B)
Total qualifying capital	38,835.0	3,239.37
Adjusted shareholders funds'	(8,791.1)	3,239.37
Capital to total risk weighted asset ratio (%)	67.18	17.66

Source: Fieldwork (2021)

Table-4. Selected Key Performance Indicators of DMBS for (1995 and 2012 – 2015)

S/N	Descriptions	1995 (%)	2012	2013	2014	2015
i	Total assets (N' Trillion)		24.58	28.79	30.97	31.39
ii	Total deposit (N' Trillion)		14.39	16.77	18.02	17.51
iii	Insured deposit (N' Trillion)		2.31	2.20	2.31	2.66
iv	Total loans & advances (N' Trillion)		8,150.03	10,042.73	12,626.96	13,328.77
v	Non-performing loans (N' Billion)		286.09	321.66	354.84	648.91
vi	Profit Before Tax (N' Billion)		458.78	539.97	601.02	588.86
vii	Adjusted shareholders' fund (Tier) (N' Billion)		2,150.32	2,418.75	2,440.20	2,782.27
viii	Non-performing loans/total loans (%)	33.00	3.51	3.20	2.81	4.87
ix	Non-performing loans / shareholders' fund (%)	496.00	14.34	13.35	12.01	12.79

x	Capital adequacy (%)	67.18	18.07	17.18	15.92	17.66
xi	Average liquidity ratio (%)	0.49	68.01	50.63	53.65	58.18
xii	Loans/deposit ratio (%)	68.40	54.29	57.95	68.11	73.76
xiii	Return on assets (%)	1.29	2.62	2.33	2.29	2.18
xiv	Return on equity (%)	44.84	22.20	20.71	20.34	16.93
xv	Net interest margin (NIM) (%)	7.71	n.a	8.11	7.16	7.40
xvi	Efficiency ratio (%)	na	n.a	61.88	48.14	71.02
xvii	Insured deposit / total deposit ratio	na	16.05	13.12	12.82	15.09

Source: Fieldwork (2021)

Table-5. Comparative Profitability and Earnings Indicators for DMBs (2014-2015)

S/N	Indicators	Year	
		2014	2015
i	Profit before tax (N'B)	601.02	588.86
ii	Net interest income (N'B)	1,296.92	1,443.08
iii	Non-interest income (N'B)	873.17	255.76
iv	Interest expenses (N'B)	819.67	969.11
v	Operating expenses (N'B)	1,596.61	1,394.92
vi	Yield on earning assets (%)	11.71	13.40
vii	Return on equity (%)	20.34	16.93
viii	Return on assets (%)	2.29	2.18

Source: Fieldwork (2021) Adapted from NDIC (2015) Annual Report

Table-6. DMBs Industry Total Loans By Banks As At 31/12/2015

S/N	Top Eight DMBs (%)	Other DMBs	Total
i	First Bank of Nigeria Plc	71.60%	28.40%
ii	Zenith Bank Plc		
iii	Guarantee Trust Bank Plc		
iv	Access Bank Plc		
v	United Bank for Africa Plc		
vi	Ecobank Nigeria Plc		
vii	Diamond Bank Plc		
viii	Skye Bank Plc		

Source: Fieldwork (2021)

Table-7. Merger Arrangement Dates

S/N	Date	Acquirer	Target	Type of Merger
i	28/9/11	Sterling bank	Equatorial Trust Bank	Regulatory Assisted (RA)
ii	30/9/11	First City Monument Bank	Finbank	RA
iii	14/10/11	Access Bank	Intercontinental Bank	RA
iv	24/10/11	Ecobank	Oceanic bank	RA

Source: Fieldwork (2021): Adapted from NDIC (2016) Mergers and Acquisitions in the Nigerian Banking System

Table-8. Regression Analysis

Variables	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.754048	0.126402	-4.218709	0.0003
CA	0.005140	0.019608	0.281720	0.6210
AQ	0.050307	0.012804	3.287307	0.0002
MC	-0.028408	0.040705	-2.309402	0.0320
EA	-0.018703	0.018340	-0.617057	0.3015
R.squared	0.776403	Mean dependent var.	-0.606502	
Adjusted R-squared	0.712508	S.D. dependent var.	0.038728	
S.E. of regression	0.027405	Akaike info criterion	-3.180102	
Sum squared resid.	0.006709	Schwarz criterion	-4.801021	
Log likelihood	7.307506	Hannan-Quinn Criterion	-2.181705	
F-Statistic	10.09890	Durbin-Watson Stat	1.98205	

Source: E-View Statistical Package

4.1. Discussion

Credit risk management evaluation is important to enhance bank management effectiveness and to this extent *top management* is expected to keep an “elephant eye” on key performance indicators such as liquidity to asset ratio, loan to deposit ratio, and capital adequacy ratio, among others. To perform this function effectively, and as shown in figure 1, top management must identify key risk elements, and take all necessary steps to improve the quality of credit risk management in the bank. This cannot be overemphasized because credit risk management lies at the heart of commercial banking, and the credit risk management process is very important to the business of banking and the

primary basis on which a bank's quality and performance effectiveness are judged. According to McNaughton and Dietz (1997) the credit management process deserves special emphasis because proper credit management greatly influences the success or failure of financial institutions. They suggest therefore, that an understanding of a bank's credit risk management process provides a leading indicator of the quality of a bank's loan portfolio as well as the important aspect of management efficiency. Distress in the banking industry in Nigeria became widespread in 1993, when the number of technically insolvent banks rose from 15 in 1992 to 27 in December, 1993. As at December, 1995, 60 out of 120 banks, representing exactly 50 percent, were considered technically distressed. Therefore, the 1995 – 2015 dimensionalities focus on a period of 20 years of credit risk evaluation management and bank management effectiveness in Nigeria. As shown in table 1, ratio of NPLs to total loans as at 1995 was about 33 percent, and about 5 percent in 2015. This showed a significant improvement in credit risk evaluation management between 1995 and 2015. As in table 2, the average liquidity ratio for all banks in 1995 was 0.49 and 58.18 in 2015. The loan to deposit ratio was 58.4 in 1995 and 73.76 in 2015, while the number of banks with average liquidity ratio of less than 30 percent was 50 in 1995 and only 1 in 2015. This technically suggests improved management effectiveness in 2015 when compared with the same period in 1995. As in table 3, capital to total risk weighted asset ratio was about 67.18 percent in 1995 and about 17.66 percent in 2015. The impression is that credit risk management process improved in 2015 against the situation 20 years earlier, in 1995. 2015 was a good year for bank management effectiveness as shown in table 4, as efficiency ratio of DMBs rose from about 48.14 percent in 2014 to 71.02 percent in 2015. However, as in table 5, PBT declined from N601.02 billion in 2014 to N588.86 billion in 2015. According to Ibrahim (2015) the decline in profit could largely be attributed to the significant decline in non-interest income and rise in interest expenses. As in table 6, only eight top banks as at 2015 provided about 71.60 percent of the total loans of N13.3 trillion while the rest provided a meagre 28.40 percent. Unfortunately, Diamond Bank and Skye Bank categorized among the top eight banks in 2015 are no longer in *circulation* on the basis of management and NPLs challenges. For any bank to remain in *circulation* the BODs has the critical responsibility for driving it through providing criteria for monitoring, measuring and evaluating performance, creating sustainable competitive advantage, overcoming challenges and taking available opportunities, using resources efficiently, and ultimately achieving business goals and then enhancing shareholders' equity. As in table 7, four banks overwhelmed by management incompetence, poor liquidity ratio, and huge NPLs, and became technically distressed were acquired in 2011 (Ibrahim, 2016). Banks like Diamond Bank and Skye Bank were *swallowed* by Access Bank and Polaris Bank in recent time. In comparative terms, this would suggest a significant improvement in bank leadership in the years between 1995 – 2015 and beyond. Also, as shown in table 4, the ratio of classified LADs to shareholders' funds in 1995 was about 496 percent, against about 13 percent in 2015. This technically means that shareholders' equity was completely wiped away in 1995 for reasons obviously not unassociated with weak credit risk evaluation management. In 1995, shareholders' equity was - N8,791.1 million and this contrasts with 2015 when shareholders' funds unimpaired by losses was N3.2 billion, while capital adequacy ratio stood at about 18 percent. Regression analysis is used to check the effect of the independent variable(s) on the dependent variable. In this investigation covering twenty years, the R^2 value of 0.78 showed strong positive relationship between the variables of interest. The adjusted R^2 , value of 0.71 showed that the goodness-of-fit test of the model of the study is also very good. The value of the Durbin-Watson is 2.0 that is within the range between 1.5 and 2.5. In view of this, it can be stated that there is no autocorrelation among the independent variables of interest. Accordingly, H_0 : was rejected and H_1 : accepted to confirm that credit risk evaluation management explains Bank management effectiveness. This is the objective of the study.

4.2. Scope of Further Study

Banking business is the lifewire of any sound economic system; therefore, further study should investigate the relationship between regulatory efficacy and the performance of DMBs in Nigeria.

4.3. Recommendations

- i. The BODs through their credit risk management framework should avoid poor selection of risks to reduce the magnitude of resultant NPLs.
- ii. Lending over and above the repayment capacity of borrowers is bad and a demonstration of poor bank management. This can be reduced by hiring competent people.
- iii. Most bad debtors do not have their complete data at the disposal of the lender. This often makes recovery drive extremely difficult. Bank management has the important responsibility of obtaining all necessary data from borrowers before disbursing a KOBO.
- iv. Frivolous collaterals are often pledged in connivance with unscrupulous bank promoters, managers, and directors. The regulatory authorities like the CBN and NDIC should stipulate necessary penalties against such fraudsters.
- v. Granting huge loans over elegant *management profile*, without verifying the personal integrity and technical competence of the people must be avoided to protect depositors and shareholders' funds.
- vi. Credit risk management evaluation should be accorded proper attention by BODs through the Audit Committee because lack of supervision over loans that were sound initially can be a reason for them to lapse into the nonperforming category, due to diversion of loan funds.

5. Conclusion

Credit risk management evaluation is an essential ingredient in sound bank management and effectiveness. But the evidence between 1995 and 2015 shows that loan losses were heavy as at December 1995 largely due to poor credit risk management. For example, capital to total risk weighted asset ratio was about 67 percent in 1995 when compared to about 18 percent in 2015. Also the average liquidity ratio of 58.18 in 2015 against 0.49 in 1995 showed a great improvement in management capacity. In this century, the efficiency ratio of about 71 percent in 2015 over about 48 percent in 2014 presents a picture of good credit risk management evaluation and bank management effectiveness. There is huge evidence in bank management literature that the problems of NPLs resulting from poor risk appetite lead to poor bank performance. Effective bank management hinges on proper management of funds, use of competent people, as well as proper documentation of the profile of bank borrowers. The BODs has the responsibility of formulating and implementing appropriate credit risk policies, and ensuring that realizable collaterals are obtained for credit exposures. The ex-post-facto research design was adopted for the study, and the result showed strong positive relationship between credit risk evaluation management and bank management effectiveness.

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John Nkeobunna Nnah Ugoani, collected, analyzed and interpreted data in respect of this paper. The paper is the intellectual property of the sole author who is therefore, solely, responsible for any omissions or liabilities arising there from.

Originality

Credit risk management evaluation is central to effective credit risk management and bank management effectiveness. Despite the massive mismanagement of banks in Nigeria in the 1990s through 2011 this is one of the few new works in the present century covering credit risk management evaluation between 1995 – 2015 in Nigeria.

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