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EFFECT OF BAD DEBT ON DEPOSIT MONEY BANK'S LENDING IN NIGERIA

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Abstract
This paper examined the effect of bad debt on deposit money banks' lending in Nigeria. The research design adopted for the study is cross-sectional research design. The data were analyzed using regression analysis. The study revealed that non-performing loans, total bad debt written-off, capital adequacy and liquidity level have a significant impact on the performance of Nigerian banks. The correlation matrix result showed that non-performing loans and total debts written-off have a weak negative relationship with banks return on equity while capital adequacy and liquidity level have a weak positive correlated relationship with banks' return on equity. The study concluded that bad debt on deposit money banks' lending in Nigeria, as indicated by the non-performing loans ratio (NPLN), the liquidity level of banks (LQDL) and the capital adequacy ratio (CPAD) significantly impact on the performance of banks in Nigeria where performance is measured by the return on equity. The researchers suggested that management of deposit money banks in Nigeria should enhance their skills in credit analysis and loan administration. This is to ensure that risk of non-performing loans and total bad debts written-off are drastically reduced and/or eliminated from banks.

Keywords: Debt, Bad debt, Deposit money bank, Lending, Banking

Introduction

Banks are profit-making organizations performing as intermediaries connecting borrowers and lenders in bringing temporarily available resources from business and individual customers as well as providing loans for those in need of financial support (Uwuigbe, 2013; Driga, 2012). Banks play a vital role in developing economies like Nigeria, Ghana, Egypt and Algeria.

Bank lending is very crucial for it makes possible the financing of agricultural, industrial and commercial activities of the countries. Banks are entrusted with the funds of depositors. These funds are generally used by banks for their business. The funds belong to the customers; so a programme must exist for management of these funds. The programme must constantly address three basic objectives: liquidity, safety and income. Successful management calls for proper balancing of all these three.

Liquidity enables the banks to meet loan demands of their valuable and long established customers who enjoy good credit standing. As a matter of fact, a bank cannot remain in business if it neglects the credit function (Osayeme, 2000).

Of interest to this paper is the credit component of the banks' portfolio that contributes to the profit of the banks and which led to the problem of bad debts in Nigerian banks as a result of poor management. Credit, as the name implies, is described as the right to receive payments or the obligation to make payments on demand or at some future date on account of the immediate transfer of goods or money (Uwuigbe, Uwalomwa and Ben- Caleb, 2012). It is based on the faith and confidence, which the creditor reposes in the ability and willingness of the debtor to fulfill his promise to pay. In a credit transaction, the right to receive payments and the obligation to make payments originate at the same time.

The term, debt, is frequently used in reference to debtor's obligation to make payment. Debt and credit are, therefore, similar terms. Management of credit is simply the application of four management principles which are planning, organizing, directing and controlling to credit concept. Deposit Money Banks are major players in the financial sector of every country's economy. The failure or success of these banks will, to a large extent, affect the financial sector and the economy at large. In recent times, some Deposit Money Banks have been wound up leaving customers to their fate. It is important to note that the main reason of the liquidating of most of these banks is their inefficient and ineffective management of their capital-funds and credits. Many of them write off huge amounts of debt yearly and also reflect some going concern issues that relate to their management of credit and finance. It is in the light of the above, that this study examined the

relationship between bad debt and DMBS lending.

Banks exist not only to accept deposit, but also to grant credit facilities. These business activities, therefore, inevitably expose banks to huge credit risks which might lead to financial distress, including bankruptcy. Two types of risks are typically identified when considering bank loans than any other banking business. Firstly, is the credit risk; that is, the possibility that promised payment will not be made. Secondly, another type of risk is the liquidity pressure associated with bank loans. The demand for bank loans is typically higher in boom periods when tight monetary policy causes security price and the rate of deposit growth to decline. It is in the light of the above that the study is being undertaken to identify the impact of bad debt on deposit money banks' lending in Nigeria.

The significance of this study will be evident in the fact that its result will demonstrate how **b**anks will be able to establish very strict credit management policies which must not only minimize any tendency of incurring losses of non-performing loans, but also to improve the performance of banks.

Review of Related Literature

Credit Management

Credit management is the process of controlling and collecting payments from customers. A good credit management system will help reduce the amount of capital tied up with debtors (people who owe you money) and minimize your exposure to bad debts. It is a function performed within a company to improve and control credit policies that will lead to increased revenues and lower risk including increasing collections, reducing credit costs, extending more credit to creditworthy customers, and developing competitive credit terms. Through credit control, otherwise known as credit management, it is sometimes possible to increase sales by granting credit to selected clients who may choose to do business with you because of the convenience offered by a credit account. If you choose to provide this option, be sure to develop a sound credit application process which includes a thorough check of client credit ratings before granting approval.

Credit Risk

Credit risk is the current and prospective risk to earnings or capital arising from an obligor's failure to meet the terms of any contract with the bank or otherwise to perform as agreed. Credit risk is found in all activities in which success depends on counterparty, issuers, or borrower performance. It arises any time bank funds are extended, committed, invested, or otherwise exposed through actual or implied contractual agreements, whether reflected on or off the balance sheet. Thus, risk is determined by factors extraneous to the bank such as general unemployment levels, changing socio-economic conditions, debtors' attitudes and political issues.

Credit risk refers to the risk that a borrower will default on any type of debt by failing to make required payments. The risk is primarily that of the lender and includes lost principal and interest, disruption to cash flows, and increased collection costs. When we speak of the credit quality of an obligation, this refers generally to the counterparty's ability to perform on that obligation. This encompasses both the obligation's default probability and anticipated recovery rate. To place credit exposure and credit quality in perspective, recall that every risk comprises two elements: exposure and uncertainty. For credit risk, credit exposure represents the former, and credit quality represents the latter.

For loans to individuals or small businesses, credit quality is typically assessed through a process of credit scoring. Prior to extending credit, a bank or other lender will obtain information about the party requesting a loan. In the case of a bank issuing credit cards, this might include the party's annual income, existing debts, whether they rent or own a home, et cetera. A standard formula is applied to the information to produce a number, which is called a credit score. Based upon the credit score, the lending institution will decide whether or not to extend credit.

Credit Risk and the Banking Industry

Credit risk, according to Basel Committee of Banking Supervision BCBS (1999) and Gastineau (2012), is the possibility of losing the outstanding loan partially or totally, due to credit events (default risk). Credit events usually include events such as bankruptcy, failure to pay a due obligation, repudiation/moratorium or credit rating change and restructure. Basel Committee on Banking Supervision- BCBS (1999) defined credit risk as the potential that a bank borrower or counterparty will fail to meet its obligations in accordance with agreed terms. Heffernan (2016) observed that credit risk is the risk that an asset or a loan becomes irrecoverable in the case of outright default, or the risk of delay in the

servicing of the loan. In either case, the present value of the asset declines, thereby undermining the solvency of a bank. Credit risk is critical since the default of a small number of important customers can generate large losses, which can lead to insolvency (Bessis, 2002).

Anthony (2017) asserted that credit risk arises from non-performance by a borrower. It may arise from either an inability or an unwillingness to perform in the pre-committed contracted manner. Brown-bridge (2018) claimed that the single biggest contributor to the bad loans of many of the failed local banks was insider lending. He further observed that the second major factor contributing to bank failure were the high interest rates charged to borrowers operating in the high-risk. The most profound impact of high non-performing loans in banks portfolio is reduction in the bank profitability especially when it comes to disposals.

Bobakovia (2003) asserted that the profitability of a bank depends on its ability to foresee, avoid and monitor risks and cover losses brought about by credit risk. 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 managers might find market pressure for higher profits very difficult to overcome. 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 increase in the number of distressed banks.

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. 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 (Olayinka, 2019). 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).

Causes of Major Credit Problems in the Banking Industry

Most major banking problems have been either explicitly or indirectly caused by weaknesses in credit risk management. In supervisors' experience, certain key problems tend to recur. Severe credit losses in a banking system usually reflect simultaneous problems in several areas, such as concentrations, failures of due diligence and inadequate monitoring. This section summarizes some of the most common problems relating to the broad areas of concentrations, credit processing, and market- and liquidity-sensitive credit exposures.

Non-Performing Loans

Non-Performing Loans (NPL) is an independent variable and it is chosen because it is an indicator of credit risk management. NPL, in particular, indicates how banks manage their credit risk because it defines the proportion of loan losses amount in relation to Total Loan amount (Hosna Bakaeva and Sun, 2009). We expected non-performing loans to have an adverse relationship with RCBs performing.

Capital Adequacy Ratio

Capital Adequacy Ratio (CAR) is also an explanatory variable and is chosen because it is the core measure of a bank's financial strength from a regulator's point of view. Capital adequacy ratio consists of the types of financial capital considered as the most reliable and liquid, primarily shareholders' equity. Bank with good Capital Adequacy Ratio have good profitability. With good capital requirement, commercial banks are able to absorb loans that have gone bad.

Return on Equity (ROE)

Return on Equity (ROE) represents an explained variable and it measures the return on shareholders' investment in the bank. ROE was used as the indicator of the profitability in the regression analysis because ROE along- with ROA has been widely used in earlier research. It shows the effectiveness of management in the utilization of the funds contributed by shareholders of a rural bank.

Factors Responsible for Customer's Default

According to Onwudiegwu (2001), the concept of default is less obvious than it first seems, for it could result from non - or delayed payment of interest and or principal for a given period. One or a combination of the following factors could contribute immensely to default especially in a depressed economy. The more one borrows; the more one would want to borrow consequently. The volume of the loan would increase which decreases the ability to repay as

opposed to the willingness to repay. The ability to repay increases with increased net income although that does not say anything about the willingness to repay. One would expect borrowers with high net income to have low debt/equity ratio, the lower the debt/equity ratio, the higher the ability to repay. The effect of high net income and low debt/equity ratio is a precaution for borrowers to build up valuable assets.

Onwudiegwu (2001) equally posited that as the value of the collateral increases, the default rate is expected to decline. Where there is income variance as a result of economic or natural circumstance, credit service ability per individual borrower decreases and hence, default could increase. Such income variances are common in agricultural and manufacturing sectors. The higher the interest rate, the more the outstanding balance the borrowers have to pay considering the principal.

Rate of inflation has link with the real interest to be paid by the borrowers. If inflation is higher than the interest rate, it will mean that the lending bank would be paying borrowers to take its loans. The close monitoring of borrowers to ensure a loan is not diverted to unproductive use, though costly, has a lot of bearing on ability of the borrower to repay. The more the effort being put in ensuring utilization of a facility, the less chance of default.

Securities for Bank Lending

Securities for bank lending are property pledged as collaterals for loans by borrowers. Securities are the general name for stocks, mortgages, bonds, and certificates showing ownership of property. From the foregoing, the preview of securities for bank lending shall be limited to such properties held as securities by banks in Nigeria (Mandel, 2000).

From the diagnosis of the Nigerian Banking system, some of the securities held by banks before any lending is made to any individual, corporation or government and those securities often demanded by banks for loans and advances in the country have been shown to be quite unsatisfactory. One of such is the requirement of bank that prospective borrower should pledge any real estate holding for loans given to them. Such estate includes heavy plants and machinery, landed properties and other physical assets. Real estate properties must be immovable properties. The advantage it has to the bank is that due to the fact that it is stationary, the banks lay confidence on it to recover its debts in case of default. This category of security constitutes a major singular security in Nigeria banking industry (Mandel, 2000). According to Olayinka (2019), other securities pledged by customers wishing to borrow from the bank is their money in either saving, current or time deposits, especially if the account has a regular cash flow usually from any salaries or wages or even other private sources.

Obstacles Toward Effective Performance

As should be expected in most business enterprises in developing economies, the banking industry has certain factors that are militating against effective performance of their lending function. Most of the people operating various businesses in Nigeria are illiterates. They do not easily understand nor do they appreciate reasons a lot of difficulties are encountered if loans are mismanaged. Explaining to such business men and women ways and means of improving their account with the bank before asking for loan is usually a mere waste of time. They would prefer to offer kickbacks than to understand the simple operation of the system (Okoh, 2017). The credit departments of some banks do not have the required level of manpower and the will needed to perform difficult and technical transactions involved in lending.

Methodology

The research design adopted for the study is cross-sectional research design. It is sufficient and suitable for determining the relationship that exists between bad debt and deposit money banks' lending in Nigeria. This research focused on the ten selected banks in the Nigerian banking industry, currently listed on the Nigerian stock exchange (NSE). Hence, the population size is a total of ten (10) banks currently listed on the Nigerian Stock Exchange (NSE) and which include the following; First Bank plc, United Bank for Africa plc, Zenith Bank plc, Eco Bank plc, Guarantee Trust Bank plc, Fidelity Bank plc, Union Bank plc, Access Bank plc, Polaris Bank plc and the Keystone Bank plc.

This study covered a period of seven (7) years ranging between 2016- 2022 financial years. The sample size of ten (10) selected banks actually covered as much as 50% of the entire population.

The method of data collection used in this study is the secondary source of data. For the purpose of the study, data were obtained from two major sources which include the annual

financial reports of the ten (10) selected banks and Central Bank of Nigeria statistical bulletins.

This piece of research adopted the quantitative research techniques. The technique of analysis used in analyzing the data of the research work is the ordinary least square (OLS). The correlation analysis was used to explain the significant relationship among the variables. A multiple regression equation was set up to investigate the hypothesized relationships between the dependent variable and the independent variables in this study. The econometric form of the equation is given as:

ROE = F (NPLN, TBDW, CPAD, LQDL)……1

ROE t-1 = β0t-1 + β1NPLNt-1 + β2TBDWt-1 + β3CPADt-1 + β4LQDLt-1 + µt-1.....2

Where;

ROE = Return on Equity of selected Banks
NPLN = Non-Performing Loans of selected Banks in Nigeria.
TBDW = Total Bad Debts Written-off of selected Banks in Nigeria.
CPAD = Capital Adequacy of selected Banks in Nigeria.
LQDL = Liquidity Level of selected Banks in Nigeria.

Data Presentation and Analysis

This session contains clear and accurate findings arising from the study. The various data generated and presented in the preceding session form variable instruments for an intellectual exercise in presenting a coherent and concise report of the various findings.

Table 1: Statistical data on Return on Equity, Non-Performing Loans, Total Bad Debts, Capital Adequacy and Liquidity Level

YEAR	NPLN	TBDW	CPAD	LQDL	ROE
2016	0.374093457	0.374184715	0.886419656	0.422130436	0.136232393
2017	0.279704894	0.361057712	0.875620432	0.412345005	0.108093453
2018	0.308170719	0.380856433	0.989938002	0.384727561	0.069016664
2019	0.399863555	0.36361174	0.76612942	0.474608776	0.220753853
2020	0.431769284	0.363611746	0.591145444	0.558790934	0.199829238
2021	0.483741202	0.330326715	0.070158857	0.652707745	0.20569601
2023	0.4573386	0.04579322	1.20757808	0.375220028	0.171816898

Source: Data Collected from the 10 selected Nigerian Banks

Descriptive Statistics

Table 2: Computation of GRETL

VARIABLES	N	MEAN	MINIMUM	MAXIMUM	STANDARD DEV
NPLN	70	0.14693364	0.00113467	0.483741202	0.143908651
TBDW	70	0.19708630	0.00055702	1.272811545	0.23390905
LQDL	70	0.52495646	0.02234641	5.98794496	0.81866865
CPAD	70	0.85684177	0.00128462	12.4203070	1.6647914545
ROE	70	0.270859061	0.02648554	1.669612866	0.327495618

Source: GRETL Computed from 10 selected Nigerian Banks over 6 years (2023)

Table 3: Correlation Matrix

	NPLN	TBDW	LQDL	CPAD	ROE
NPLN	1				
TBDW	0.03546**	1			
LQDL	-0.08343*	0.03427**	1		
CPAD	0.75497	-0.10564	0.03420**	1	
ROE	-0.04358**	-0.04634**	0.02367**	0.76815	1

Source: GRETL Computed from 10 selected Nigerian Banks over 6 years (2023)

Pooled OLS, using 70 observations Included 7 cross-sectional units Time-Series Length: Minimum 7, Maximum 12 Dependent Variable: ROE

Note: GRETL = Gnu Regression, Econometrics and Time-series library

From Table 3, we can see the correlation between the explanatory variables and the dependent variable (Return on Equity). It is seen from the correlation matrix table (that is, Table 3) that Non-performing loan ratio (NPLN) has a significant negative relationship of -0.04358** with return on equity (ROE) which is the dependent variable of the study and this indicates that as the non-performing loan ratio rises, return on equity (ROE) falls respectively and vice-versa. However, while relating non-performing loan (NPLN) with other independent variables of the study, we can discover from the table that it also has a significant negative relationship with liquidity level (LQDL) but, a significant positive relationship with total bad debts and a positive relationship with capital base (CPAD).

Total bad debts written-off (TBDW) has a significant negative relationship of -0.04634** with return on equity (ROE) which is the dependent variable of the study, and this indicates that as the total bad debt written off (TBDW) rises, the return on equity (ROE) falls and vice-versa. However, while relating total bad debt written-off (TBDW) with other independent variables, we can discover from the correlation matrix table that it has a significant positive relationship with non-performing loan ratio (LQDL) and a negative but insignificant relationship with liquidity level (LQDL); but in the case of capital adequacy ratio (CPAD), total bad debt written-off also has a negative relationship with capital adequacy ratio and significant.

Liquidity level (LQDL) has a significant positive relationship of 0.02367** with return on the equity (ROE) which is the dependent variable of the study, and this indicates that as the liquidity level (LQDL) rises, the return on equity(ROE) also rises and vice-versa. However, while relating the liquidity level (LQDL) to other independent variables, we can discover from the correlation matrix table that it has a significant relationship with the capital adequacy ratio (CPAD), and a significant positive relationship with total bad debt written-off (TBDW); and also in the case of capital adequacy ratio (CPAD), liquidity level has a significant positive relationship with capital adequacy ratio.

Capital adequacy ratio (CPAD) has a positive relationship of 0.76815 with return on equity (ROE) which is the dependent variable of study, and this indicates that as the capital adequacy ratio (CPAD) rises, the return on equity (ROE) also rises and vice-versa, although not significant. However, while relating the capital adequacy (CPAD) to other independent variables, we can discover from the correlation matrix that it also has a significant positive relationship with total bad debt written-off (TBDW).

Table 4: Regression Analysis

	Reg. coefficient	Std. Error	t-statistic	P-value
Constant	-2.12338	0.618841	-3.4312	0.00123***
NPLN	-0.812664	0.24663	-3.2951	0.00183***
TBDW	-0.0440922	0.140058	0.3148	0.75424
LQDL	0.193131	0.032629	5.9190	0.00001***
CPAD	0.373628	0.0657285	-5.6844	0.03791**

Source: Data Extracted from GRETL Regression Output (2023)
*** Significance at a level of 1%
** Significance at a level of 5%
Significance at a level of 10%

Mean dependent var	0.270859	S.D dependent Var	0.327496
R-squared	0.661918	Adjusted R-squared	0.634319
S.E. of regression	2.040862	Akaike info criterion	235.0427
Sum squared resid	16.11992	Schwarz criterion	244.9876
Log likelihood	-112.521	F-Statistic	23.98377
Durbin-Watson stat	2.041678	Prob (F-Statistic)	0.002036

Discussion of Result and Findings

This study examined bad debt and deposit money banks' lending performance in Nigeria of which ten (10) selected banks in Nigeria for a period of six (6) years spread between 2016 and 2022. The independent variables used, being credit management mechanisms, include non-performing loan ratio (NPLN), total bad debts written-off (TBDW), liquidity level measured by the current ratio (LQDL) and the capital

adequacy ratio (CPAD) while the dependent variable being financial performance was measured by the return on equity (ROE) which represents the earning power of shareholders' fund. After a rigorous process of data collection and analysis, the findings are discussed as follows;

Non-Performing Loan Ratio (NPLN) and Banks Performance in Nigeria as shown in Table 4 and as discussed under the variables in the literature review, the non-performing loans ratio (NPLN) have no significant impact on the performance of banks in Nigeria was rejected because the result revealed that the coefficient of regression of -0.8127 indicates that there is an inverse relationship between non-performing loans ratio (NPLN) and performance as measured by the return on equity (ROE). Indicating therefore, that by having a regression coefficient of-0.8127, non-performing loans have a negative impact on the performance of the selected banks as measured by return on equity (ROE); and by having a p-value of 0.00183***, non-performing loans ratio (NPLN) significantly impacts on return on equity (ROE) at 1% level of significance.

Total Bad Debts Written-Off (TBDW) and Banks' Performance in Nigeria as shown in Table 4, states that total bad debts ratio (TBDW) have no significant impact on the performance of banks in Nigeria was accepted because the result revealed that the total bad-debts written-off ratio (TBDW) negatively impacts on return on equity (ROE) with a regression coefficient of -0.0440922 and a p-value of 0.75424. By having a p-value of 0.75424, the negative impact of total bad debts written-off ratio (TBDW) on return on equity (ROE) is not significant. Therefore, as total bad debts written-off ratio (TBDW), the negative effect is that return on equity which represents banks' performance fall respectively. This is an inverse relationship and may be as a result of the fact that when debts are written-off as bad, the full amount of the debts are written-off against total profit for a given accounting year. Hence, the profit after tax (PAT) or net income of banks will be drastically reduced, leading to a fall in the return on equity (ROE).

One major area of concern in credit management is that poor credit management will ultimately result in huge outside debts and non-performing loans which will consequently lead to increase in total debts that will be written-off as bad in a given accounting year.

Conclusion and Recommendations

This study which was set to investigate the effect of bad debt on deposit money banks' lending in Nigeria has been able to achieve the objectives stated in the earlier segment of this study. The results have shown that credit management of banks in Nigeria, as indicated by the non-performing loans ratio (NPLN), the liquidity level of banks (LQDL) and the capital adequacy ratio (CPAD), significantly impacts on the performance of banks in Nigeria where performance is measured by the return on equity. The result also indicated that though total bad debts written-off negatively impacts on the performance of banks in Nigeria, such negative impacts are not significant.

The findings in this study also indicate that the sampled banks had poor credit risk management practices; hence the high levels of the non-performing loans in their loans portfolios. Despite the high levels of the non-performing loans (NPLN), their profit levels keep rising as an indication of the transfer of the loan losses to other customers in the form of large interest margins.

The charging of higher rates is likely to discourage microenterprises from accessing loans from commercial banks. Those who are able to take up such loans may also find it very difficult to repay because of the exorbitant interest rates. This situation has the tendency of creating 'Loan-Losses high-interest cycle' phenomenon.

In view of the findings in this study, it is hereby recommended that commercial banks should establish sound and competent credit risk management units which are run by best practices in risk management such as the institution of a clear loan policy and the adherence to underwriting authority and limits.

Also, employees of commercial banks in the credit units such as project and advance managers, credit/loan officers and field officers should be made to undergo training and re-training from time-to-time.

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