Credit Risk Management and the Performance of Nigerian Deposit Money Banks

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Abstract. We have used a multiple regression model to identify the impacts of the variables of credit risk management on the Nigerian deposit money banks’ performance from 2000 to 2020. The estimation was completed using the ordinary least squares method with E-Views 12. The data was sourced from the Nigerian Stock Exchange for information and the Statistical Bulletin of the Central Bank of Nigeria. The outcome determined that return on equity (ROE) is negatively correlated with the nonperforming loan/loan and advances ratio. Last but not least, the ROE measurements of the deposit money banks in Nigeria show a substantial correlation between the ratios of advances and loans to nonperforming loans, loan loss provision to loans and advances, and capital adequacy. These ratios are positively correlated with each other and negatively correlated with the capital adequacy ratio. We advise effective surveillance of pre- and post-deposit financial institution loans for the early detection of problematic debts that won’t be repaid according to schedule and for the thorough analysis of prospective projects as indicated in the financial statement given by the intended client (cash budget, income statement). Accurate identification of realistic projects and repayment terms based on the customer’s past performance will be achieved.

Keywords: Credit risk, bank performance, credit management.

INTRODUCTION

Any economy may expand thanks to the financial services provided by the banking industry of that nation. A nation’s financial stability index is determined by the banking sector’s long-term efficiency and effectiveness to the extent to which the public can evaluate bank credit for productive endeavors to aid the quickening of the speed of a country’s economic expansion and also ensure its long-term viability [6]. Lending activities carried out by the banks expose them to significant credit risk, which can result in financial difficulty and possibly bankruptcy (nonperforming loans).

Simply put, credit risk is the potential to lose an existing debt entirely or substantially as a result of credit events. It is also significant in commercial banks’ profitability because loans with interest generate a significant portion of commercial banks’ income [5]. Given that credit is one of the primary sources of income for commercial banks, controlling credit-related risk is critical for profitability [7].

According to Ejoh et al. [3], credit risk increases whenever there may be a contravention to the principles of credit. Since lending comprises a reasonable portion of the resource exposure of Nigeria’s deposit-taking banks, the capacity to generate profit and stay sound for banks becomes a function of effective and efficient management of their risk and lending portfolio.

Therefore, an important component of lending is credit risk management, and as such, its absence can turn a good loan into a bad one. For banks to be successful and maintain their soundness while enhancing performance, their corporate credit appraisal, disbursement, adequate monitoring, and repayment practices must be assured [1].

This study draws from the foregoing and intends to carry out an empirical analysis of the correlation between the efficiency of Nigeria’s deposit money banks and credit risk management. Some of the previous studies include the following:

Examining the credit risk management practices and the profitability satisfaction inventory through banks’ credit
risk management practices (BACRIMAP), in Ekpoma, Edo State, Nigeria, Aigbomian and Akinlosotu [1] conducted
their study on deposit money banks’ profitability and credit risk management (PSI) for profitability indices of
banks. Their results showed a strong correlation between deposit money institutions’ profitability and credit risk
management.

Ifeanyi and Francis [4] tested the nexus that exists between Nigeria’s deposit money banks’ profitability (ROA) and credit management (DMBs) from 2006 to 2015. Secondary data bulletins and bank annual reports were
given by the Central Bank of Nigeria’s Statistical Depart-
ment. They discovered that nonperforming loans were
detrimental but very slightly affected profitability, whereas
loans, advances, and loan loss provisions had a positive but
insignificant impact.

Olalere and Ahmad [9] tested eight commercial banks
(SIBs) from 2011 to 2014, using a panel data analysis to
investigate how Nigerian commercial banks’ profitability
is affected by credit risk. The findings revealed a signif-
icant and adverse relationship between profitability and
the nonperforming loan ratio. During the research period,
there was no relationship between bank profitability and
the debt-to-equity ratio or the debt-to-total assets ratio.

In their 2014 study, Alalade, Binuyo, and Oguntodu
looked at how the profitability of Lagos State’s banks was
impacted by credit risk. They advised managers of the
banks to place a great deal of importance on credit risk as
a result of their discovery that credit risk may contribute to
a decline in earnings.

METHODOLOGY

The study used secondary data from 24 DMBs from the
data gathered from the Central Bank of Nigeria (CBN)
and the Nigerian Stock Exchange (NSE) database between
2000 and 2020. The ordinary least square technique using
EViews 12 statistical package was used to estimate the
model. The dependent variable is the return on equity
(ROE). The independent variable includes the nonper-
forming loan/loan and advances ratio (NPLR), loan loss
provision/loan and advances ratio (LLPR), and capital
adequacy ratio (CAR) (Tables 1 and 3).

The multiple regression model used for this investiga-
tion is as follows:

\[ Y = K_0 + K_1X_1 + K_2X_2 + \cdots + K_nX_n + u \]  
(1)

where

\[ Y = \text{the dependent variable representing measure of performance of deposit money banks} \]

\[ X_1 \ldots X_n = \text{the independent variables representing proxies for credit risk management} \]

When transformed into a mathematical model, this reads as follows:

\[ \text{ROE} = K_0 + K_1\text{NPLR} + K_2\text{LLPR} + K_3\text{CAR} \]  
(2)

FINDINGS

The following are the findings of our study:

1. NPLR and the ROE are negatively correlated.
Table 3. Ordinary least square technique of regression analysis.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>4.905308</td>
<td>0.670213</td>
<td>7.319027</td>
<td>0.0000</td>
</tr>
<tr>
<td>NPLR</td>
<td>-0.246894</td>
<td>0.133960</td>
<td>-3.843041</td>
<td>0.0009</td>
</tr>
<tr>
<td>LLPR</td>
<td>0.234100</td>
<td>0.144704</td>
<td>2.617782</td>
<td>0.0183</td>
</tr>
<tr>
<td>CAR</td>
<td>0.518059</td>
<td>0.275724</td>
<td>2.478907</td>
<td>0.0220</td>
</tr>
</tbody>
</table>

R-squared 0.852676 Mean dependent var 13.57438
Adjusted R-squared 0.844997 S.D. dependent var 1.322470
S.E. of regression 0.304464 Akaike info criterion 0.586917
Sum squared resid 2.317465 Schwarz criterion 0.775510
Log likelihood -4.510298 Hannan-Quinn criter. 0.645982
F-statistic 167.7570 Durbin-Watson stat 2.063538
Prob (F-statistic) 0.000000

Source: EViews 12-based results.

Table 4. Summary of t-test.

<table>
<thead>
<tr>
<th>Variables</th>
<th>t-Calculated Values</th>
<th>t-Tabulated Values</th>
<th>Prob. Values</th>
<th>Decision Rules</th>
<th>Conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPLR</td>
<td>3.843041</td>
<td>2.110</td>
<td>0.0009</td>
<td>Reject H0</td>
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</tr>
</tbody>
</table>

Source: Researcher’s Computation (2022).

2. ROE and LLPR have a positive correlation of 0.234100.

3. The CAR and ROE are positively correlated.

Analysis of t-Test

The summary of our t-test as presented in Table 4 reveals that all our estimated parameters are individually significant. This is further ascertained by their P-values (i.e., 0.0009, 0.0183, and 0.0220, respectively), which are less than 0.05.

Finally, it can therefore be inferred based on this outcome that ROE is significantly impacted by each of the following metrics: CAR, loan loss provisions and loan and advance ratios, often known as NPLR and LLPR, respectively.

CONCLUSIONS AND RECOMMENDATIONS

The study looked at how credit risk management in Nigeria had an influence on deposit money banks’ performance from 2000 to 2020 using a multiple regression model estimated by the ordinary least square technique using the EViews 12 statistical package to analyze both the individual and joint performance of Nigerian deposit money banks as measured by ROE, credit risk management variables (interactions between NPLR, LLPR, and loan loss provision). The data were gathered from the Central Bank of Nigeria (CBN) and the Nigerian Stock Exchange Nigeria’s Statistical Bulletin (NSE).

The findings are consistent with the hypothesis that NPLR and ROE of deposit money banks in Nigeria have a negative and significant impact on the Nigerian banks that take deposits, according to prior findings of Kolapo et al.’s [6] study on credit risk.

Second, there is a significant and positive correlation between the Nigerian deposit money banks’ ROE and their LLPR as aforementioned by Olalere and Ahmad [9] who indicated that the LLPR and the performance of Nigeria’s deposit money banks are highly positively associated.

Thirdly, there is a strong and positive correlation between deposit money banks’ capital adequacy ratio and ROE in Nigeria. This is consistent with the results that the CAR significantly improves the performance of Nigeria’s deposit money banks, as agreed by Saeed and Zahid [10], who established that the CAR has a significant positive effect on deposit money banks’ returns on assets and ROE.

Finally, there is a joint influence on the performance of deposit money banks in Nigeria as evaluated by ROE. It is notably influenced by the loan loss provision, loans and advances, and nonperforming loans to loans and advances, and capital adequacy.

The following recommendations have been provided based on the research findings and its conclusions:

1. Deposit money institutions should keep track of their outstanding loans to identify payment loans that the borrower will fail to repay as scheduled as soon as possible.

2. Prior to making a loan, deposit money institutions should carefully review the project as described in the customer-provided financial statement (cash budget, income statement). Based on the clients’ prior performance, they will be able to determine reasonable projects and payback conditions.

3. Deposit money banks should strictly follow loss prevention methods for risk management. An excellent
example is the written agreement in which the borrower agrees to deliver specified financial statements at specific times during the loan’s life.

4. Loans and advances should be given to borrowers on a merit basis and not on personal recognition. Thus, credit facilities should be granted only after a thorough evaluation of the loan applicants’ proposals.

5. Efficient supervision and collection systems should be given priority as this will reduce the possibility of diversion of loans to other uses, which always hinders effective loan recovery.

CONFLICT OF INTEREST

The authors hereby declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

AUTHOR CONTRIBUTIONS

Okey-Nwala, P. O; Kenn-Ndubuisi, J. I.; and Wachukwu, P. I. contributed by collecting articles and materials for publication, preparing the paper and submitting it for publication, proofreading of the article, correcting and final submission. We agree to be accountable for the content of the work.

REFERENCES


