

# The Influence of Bank Lending on Corporate Financial Performance of Deposit Money Banks Quoted on the Nigerian Stock Exchange

Aza Ibrahim Eyigege\* and Nguavese MN

Department of Accounting, Federal Polytechnic, Nigeria

## Abstract

Deposit money banks in Nigeria do render lending services to their customers in form of short, medium or long term basis especially from customer deposit taking. Individuals, business organizations as well as government do receive loans and advances to enable them invest, develop and contribute towards the development of a country. This research work investigates the influence of bank lending on financial performance of deposit money banks quoted on the Nigeria stock exchange. The study adopt a descriptive research design using a cross-sectional panel data of 12 years to examine the influence of bank lending proxied as (loans and advances to total deposit) on financial performance using profitability and liquidity as dependent variables proxied as ROA and CA/CL respectively. The study utilizes a sample of selected five deposit money banks out of the population of 21 with the use of Yemane's sampling technique. The study adopts panel data OLS regression and fixed effect regression analysis. The finding of the study indicates insignificantly positive influence of bank lending on financial performance of deposit money banks quoted on the Nigeria stock exchange. The study therefore recommends that deposit money banks in Nigeria should mobilize more deposits in order to enhance their lending capability and should formulate comprehensive and realistic financial plans to boost financial performance.

**Keywords:** Lending; Deposit; Loans; Advances; Interest rate; Mobilization

## Introduction

Bank lending is a vital function of banking industries due to its direct effect on national development. Bank lending entails risk that the bank shareholders will not realize their returns unless it is properly assessed. Banks exist not just for anything else than granting credit facilities which inevitably exposes them into huge credit risks leading to corporate distress including insolvency. Financial services that banking industry provides makes it relevant to economic development. Financial stability of a nation is a result of the efficient and effective performance of the industry. Banks are relevant to economic development through the financial services they provide. The efficient and effective performance of the banking industry is an evidence of financial stability of any nation. The extent of banks credit extended to the public for productive activities expedites the pace of a nation's economic growth and its long term sustainability [1]. Lending which may be on long term, medium term or short term basis is one of the facilities rendered by deposit money banks to their customers. Loans and advances are being granted to individual, government as well as business organizations in order to enable them invest and also embark on development activities to enable them grow and contribute towards the economic growth and development of a country. Lending is so risky that its repayment is not always guaranteed and depends mostly on other factors outside the control of the borrower thereby affecting the shareholders return on equity. The apparent contributor to bank failures or distress in Nigerian banks is poor management of lending resulting to bulks of non-performing loans. Loan facility is the largest share of banks assets and failure to manage it would likely lead to high levels of non-performing loans which in turn affects the corporate performance of banks and the economy at large. Performance of banks depends largely on the effectiveness and efficiency of their credit management system as the industry generate most of their income from interest earned on loans [2]. Studies in this area adopted two divergent approaches. Some studies adopted theoretical approach such as the study of Peek and Rosengren (ND), Kashyap and Stein and others [3]. A bulk of other studies adopted an empirical analysis approach such as the

study of Olokoyo [4], Victor and Eze [5], Amahatu and Abiahu [2] and a host of other researchers from developed and developing economies. In the same vein, this study also adopted a normative approach and developed and tested empirically various mathematical and statistical models in order to determine the effect of bank lending on the corporate performance of quoted Nigerian deposit money banks.

The major objective of this research work is to determine the effect of bank lending on the corporate performance of quoted Nigerian deposit money banks.

The specific objectives are:

1. Determine the effect of bank lending (proxied by loan and advances to customer deposit) on profitability (proxied by return on asset).
2. Determine the effect of bank lending (proxied by loan and advances to customer deposit) on liquidity (proxied by liquidity ratio).

In line with the above objective, the study therefore formulated hypotheses as follows;

Ho1: There is no significant effect of bank lending on the profitability of deposit money banks quoted on the Nigerian stock exchange.

Ho2: There is no significant effect of bank lending on the liquidity of deposit money banks quoted on the Nigerian stock exchange.

**\*Corresponding author:** Aza Ibrahim Eyigege, Department of Accounting, Federal Polytechnic, Nasarawa, Nigeria, Tel: 08035138578; E-mail: [ibrahimeyigege@gmail.com](mailto:ibrahimeyigege@gmail.com)

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## Literature Review/Conceptual Review

Bank lending implies the issuance of fund that is allowed to be used by the customer temporarily, on the condition that the fund or its equivalent will be returned. According to Njeri [6], bank lending entails making funds available to another party (organizations or individuals) to be repaid at an interest and other associated fee. Banking institutions are lenders and provide funds for variety of reasons such as mortgage, automobile loan or small business loan.

### Concept of financial performance

Corporate financial performance is defined as a management ability to raise the level of accuracy and timeliness of financial statement to meet required standards while supporting day to day operations [7]. Lyman and Carles [8] also defined corporate financial performance as the operational strength of a firm in relation to its revenue and expenditure as revealed by its financial statements.

### Empirical review

Various studies have analysed the effect of bank lending on corporate financial performance of deposit money banks in various regions internationally, nationally and locally. Majority of the studies found positive effect of bank lending on corporate financial performance using various variables to examine the effect, with different methodologies such as linear regression and Pearson's product moment correlation coefficient employed.

### Bank Lending and Corporate Financial Performance

Ong'era and Onditi [1] analyses the influence of loan lending on financial performance of commercial banks in Kenya adopting a descriptive research design using data of 18 selected commercial banks in Kisii town. Pearson correlation analysis and multiple regression models were used to establish the relationship between loan lending policies and financial performance. The study finds a positive relationship between commercial banks financial performance and loan lending policies. Aliyu and Yusuf [9] examined the impact of bank lending on economic growth in Nigeria for the period of 1987 to 2012 relying on secondary data and using multiple regression model. The study finds that there is a statistically significant impact of bank lending on economic growth in Nigeria. Olokoyo [4] investigated the determinants of commercial banks lending behavior and the study aimed to test and confirm the effectiveness of determinants of commercial banks lending behavior for the period 1980 to 2005 and found that commercial banks deposit have the greatest impact on lending behavior.

Amahatu and Abiahu [2] investigated the relation between loan management and financial performance with a focus of deposit money banks listed on the floor of Nigerian stock exchange from 2010 to 2015. The study made use of secondary data obtained from fact books, annual reports and accounts of the listed deposit money banks in Nigeria. The relevant data obtained were subjected to statistical analysis using STATA 13, Pearson coefficient of correlation and multiple regression analysis were the statistical tools used for this study. The result of this study revealed that there is a positive and statistically significant relationship between loan management (proxied by non performing loan & deposit) and corporate financial performance proxied by ROA, EPS, DPS of deposit money banks in Nigeria.

Musa [10] examines the effect of lending rate on financial performance of quoted deposit money banks (DMBs) in Nigeria

using liquidity and profitability as performance measures. The study utilized SPSS regression analysis to analyze data and the finding of the study indicates negative and insignificant relationship between bank lending, liquidity and profitability. The study of Musa [10] measured liquidity as cash and short term funds to total asset which is a proxy of liquidity management. Liquidity should be proxied as current asset to current liability. The methodological weakness in the study is that pooled OLS regression is the appropriate analysis tool required for analysis considering the number of observations instead of using SPSS which cannot reveal the results of other required tests. Victor and Eze [5] also examine the impact of bank lending rate on the performance of Nigerian deposit money banks within the period 2000-2010 and find the lending rate and monetary policy rate significantly positively affecting performance of Nigerian deposit money banks. Njeri [6] examined the effect of lending practices on financial performance of commercial banks in Kenya. Purposive sampling was used to select 57 respondents to participate in the study that relies on a structured questionnaire as the main tool for data collection. Questionnaire results were computed using SPSS. The study found a significant positive relationship between the variables. Adebisi [11] also examines the effect of lending on liquidity management in Nigeria for the period of 2005-2008 using three banks as sample and analysis done using regression and correlation analysis. The finding revealed a strong positive relationship between lending and liquidity of banks. The kind of regression analysis done is not specified. The study period is four years using three banks making 12 observations. SPSS can be feasible although the findings may not be as robust and more reliable as panel regression. Uwuigbe et al. [12] examined the association between credit management and bank performance of listed banks in Nigeria covering 2007-2011 with 10 sampled banks using purposive sample method. The findings of the study revealed that ratio of non-performing loans and bad debt have significant negative effect on the performance of banks in Nigeria. The use of appropriate regression analysis tool determines the robustness of the findings.

## Theoretical Framework

### The signaling theory

Signaling theory argues that good borrowers should provide more collateral so that they can signal to the banks that they are less risky type borrowers and then they are charged lower interest rates. The reverse signaling argument states that banks only require collateral and or covenants for relatively risky firms that also pay higher interest rates in Olokoyo [4].

### Loan pricing theory

In trying to maximize interest income banks should consider the problem of adverse selection and moral hazards since it is very difficult to forecast the type of borrower in question at the start of the banking relationship in Olusanya [13]. Banks may induce adverse selection problems if they set interest rate too high because high risk borrowers will be willing to accept these high rates and once these borrowers receive the loans, they may develop moral hazard since they are likely to take on highly risky projects or investments in Olusanya [13].

### Credit market theory

A model of the credit market postulates that the terms of credits clear the market such that if collateral and other restrictions remain constant, the interest rate is the only price mechanism. With an increasing demand for credit and a given customer supply, the interest rate rises, and vice-versa. It is therefore believed that the higher the

failure risk of the borrower, the higher the interest premium in Olokoyo [4].

## Methodology

This study adopts a descriptive research design using a cross-sectional OLS panel regression and fixed effect regression model covering twelve (12) years from 2005 to 2016. The essence is to examine the influence of bank lending on the corporate financial performance of quoted Nigerian deposit money banks during and after the capitalization policy (banking reform) and period of corporate crisis (bank failure) that called for bailout fund. The population of this research study comprises of the 22 Deposit Money Banks quoted on the Nigeria stock exchange as at 2016 and the sample of the study covers five banks namely; Eco bank plc, First bank of Nigeria Holding plc, U B A plc, Union Bank plc and Zenith Bank plc. The sample size was determined through the use of Yemane’s sampling technique.

Model Specifications;

$$ROA_{it} = \beta_0 + \beta_1 Blen_{it} + \epsilon_t$$

$$LIQ_{it} = \beta_0 + \beta_1 Blen_{it} + \epsilon_t$$

Where;

ROA=Profitability measured as PAT/TA

LIQ=Current ratio measured as CA/CL

Blen=Bank lending measured as L&A/TD

$\beta_0$ =Constant

$\epsilon_t$ =error term

## Result and Discussions

Table 1 presents Descriptive Statistics of the variables of study. It describes the Mean, Standard Deviation, Minimum and Maximum value. The average value of profitability (ROA) recorded in the period of study is 0.135 and the maximum reached is 9.2. In the case of bank lending (blen), the average value stood at 1.543 and the maximum reached is 16.25.

Table 2 indicates the result of both OLS and Fixed Effect regression. The OLS shows the F- value of 0.01 and its P-Value is 0.9411 which implies that the overall model is fit. Both the OLS and the random effect showed the value of R2 as 0.0001 which is the multiple coefficient of determination that gives the percentage of the total variation in the dependent variable explained by the explanatory variable. It signifies that 01% of total variation in profitability (roa) can be explained by Bank lending. The regression results as shown in Table 2 indicate that bank lending in OLS has insignificantly negative effect on profitability while in both fixed and random effect regression, bank lending showed insignificantly positive effect on profitability.

Hausman Specification test was conducted to decide between fixed or random effect models. An important assumption of the fixed effect model is that those time invariant characteristics are unique to the individual firms and should not be correlated with other firm’s characteristics.

Therefore, fixed regression line  $roa = 0.1215867 + 0.008694blen$  indicates that the corporate financial performance increased as bank lending increases but there is no statistical evidence to suggest that the effect is significant since the p-value is greater than the significant value of 0.05. This finding is consistent with the work of Victor and Eze [5],

Aliyu and Yusuf [9], Njeri [6] and host of others and contradicts the work of Musa (Table 3) [10].

The correlation result indicates that there is a negative association between bank lending and profitability. The finding indicates the significance of the relationship given by 1.0000 (Table 4).

Breusch-Pagan/Cook-Weisberg test for heteroskedasticity on bank lending given the chi square prob. Of 0.1713 indicates that the data are homoskedastic. Thus, the p-value of 0.1713 which is greater than 0.05 significant levels makes the study to accept the hypothesis that the residuals are not heteroskedastic but homoskedastic and is desirable.

Table 5 presents Descriptive Statistics of the variables of the study. It describes the mean, standard deviation, minimum and maximum value. The average value of liq recorded in the period of the study is 1.114 and the maximum reached is 2.64 In the case of blen the average value stood at 1.543 and the maximum reached is 16.25.

Table 6 shows the result of both the OLS and fixed effect regression. The OLS shows the F- value of 0.05 and its P-value is 0.8288 which

Variable	Obs	Mean	Std. Dev.	Min	Max
roa	60	0.135	2.363822	-9.9	9.2
blen	60	1.542833	3.241025	0.02	16.25

Source: Researcher’s Computation using STATA V.12

Table 1: Descriptive statistics for roa and blen.

roa	OLS				Fixed Effect			
Ind. Var.	Coefficient	Std error	T	P> t	Coefficient	Std error	T	P> t
Constant	0.1459679	0.341399	0.43	0.671	0.1215867	0.3621137	0.34	0.738
Blen	-0.0071089	0.095763	-0.07	0.941	0.008694	0.3621137	0.08	0.939
F-value	0.01							
P-Value	0.9411							
R-Square	0.0001							
Wald Chi2					0.9391			
P-Value								
R-Squared:								
Within					0.0001			
Between					0.1348			
Overall					0.0001			

Table 2: Regression analysis for roa and blen.

	roa	blen
roa	1.0000	
blen	-0.0097	1.0000

Source: Researcher’s Computation using STATA V.12

Table 3: Correlation result for roa and blen.

Breusch-Pagan/Cook-Weisberg test for heteroskedasticity	
Ho	Constant variance
Variables	Fitted values of roa
chi <sup>2</sup> (1)	1.87
Prob > chi <sup>2</sup>	0.1713

Source: Researcher’s Computation using STATA V.12

Table 4: Heteroskedasticity of roa and blen.

Variable	Obs	Mean	Std. Dev.	Min	Max
Liq	60	1.114333	0.289121	0.03	2.64
blen	60	1.542833	3.241025	0.02	16.25

Source: Researcher’s Computation using STATA V.12

Table 5: Descriptive Statistics for liq and blen.

liq	OLS				Fixed Effect			
	Ind. Var	Coefficient	Std error	T	P> t	Coefficient	Std error	T
Constant	1.118257	0.0417418	26.79	0.000	1.135485	0.041641	27.27	0.000
Blen	-0.0025433	0.0117087	-0.22	0.829	-0.0137094	0.0130171	-1.05	0.297
F-value	0.05							
P-Value	0.8288							
R-Square	0.0008							
Wald Chi2					0.2969			
P-Value								
R-Squared:								
Within					0.0201			
Between					0.3017			
Overall					0.0008			

Source: Researcher's Computation using STATA V.12

**Table 6:** Regression analysis of liq and blen.

	liq	blen
liq	1.0000	
blen	-0.0285	1.0000

Source: Researcher's computation using STATA V.12

**Table 7:** Correlation result of liq and blen.

Breusch-Pagan/Cook-Weisberg test for heteroskedasticity	
Ho	Constant variance
Variables	Fitted values of roa
chi <sup>2</sup> (1)	3.53
Prob > chi <sup>2</sup>	0.0603

Source: Researcher's Computation using STATA V.12

**Table 8:** Heteroskedasticity of liq and blen.

means that the overall model is fit. The OLS and the fixed effect shows the value of r-square as 0.0008 which signifies that only about 0.08% of total variation in liq can be explained by blen. The regression result as shown in Table 6 indicate that blen in fixed effect regression indicates insignificantly negative influence on liquidity. Hausman Specification test was carried out to decide between fixed or random effect models. An important assumption of the fixed effect model is that those time invariant characteristics are unique to the individual firms and should not be correlated with other firm's characteristics.

Therefore fixed effect regression line  $liq = 1.135485 - 0.0137094blen$  indicates that the financial performance (liquidity) decreased as bank lending increases but there is no statistical evidence to suggest that the effect is significant since the p-value is greater than the significant value of 0.05. This finding is consistent with the work of Musa [10] and contradicts the work of Olokoyo (Table 7) [4].

The correlation result indicates that there is a negative influence of blen on liq of Deposit Money Banks quoted on the Nigeria Stock Exchange. It also indicates the insignificance of the relationship given by 1.0000 (Table 8).

The Breusch-pagan/cook-Weisberg test for heteroskedasticity on Blen given the Chi2 prob of 0.0603, indicates that the data are homoskedastic. Thus the P-value of 0.0603 which is greater than 0.05 significant levels make the study to accept the hypothesis that the residuals are not heteroskedasticity but homoskedasticity and is desirable.

## Conclusion and Recommendation

Deposit money banks in Nigeria rely solely on customer deposits as

their primary source of funds. It implies that there is strong existence of the relationship between banks ability to mobilize customer deposit and amount of credit granted to the customers in form of loans and advances. This study examines the effect of lending on corporate financial performances measured by profitability and liquidity. It is concluded from the findings above that bank financial performance is positively influenced by the level of loans and advances to total deposits.

Based on the findings, the study recommends that the management of deposit money banks should initiate sound and realistic lending policies, adequate credit administration procedures to guard against the occurrence of non-performing loans and efficient and effective credit risk management to monitor lending policies with established control measures.

## Suggestions for Further Research

Absence of access to numerical data for empirical analysis of customer deposits is the constraints of this study for failure to include the customer deposit as one of the independent variables of the study. Therefore, in consideration of the fact that credit facilities are offered out of customer deposit mobilization, the study hereby suggest for further research to investigate the effect of customer deposit and bank lending on corporate performance of deposit money banks quoted on the Nigerian stock exchange.

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