Original Research Article

Impairment Charges and Performance of Deposit Money Banks in Nigeria

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Abstract

This study investigates the effect of impairment charges on performance of Deposit Money Banks (DMBs) in Nigeria. Specifically, the objectives of this study are to ascertain the effect of Loan impairment charges (LIC) and non-loan impairment charges (NLIC) on performance of (DMBs) in Nigeria. The study adopted the ex-post facto research design using the Panel regression Data technique. The study made use of secondary data obtained from the Nigeria Stock Exchange Fact books and Annual reports & accounts of the eight (8) sampled DMBs. A sample of eight (8) Domestic Systemically Important Banks (D-SIBs) based on Central Bank of Nigeria (CBN) ranking were selected using the purposive sampling technique from a population of sixteen (16) DMBs whose shares were listed in the Nigeria Stock Exchange as at December 31, 2018. The study hypotheses were tested using the Panel Least Square (PLS) regression, Granger Causality test and Hausman test with the aid of E-View 9.0 statistical software. Our findings revealed that impairment charges (both Loan & Non-Loan impairment charges) have significant negative effect on Earnings Per Share of (DMBs) in Nigeria. This study concluded that bothloan impairment charges and non-loan impairment charges occur due to weak credit monitoring policy by Deposit Money Banks in Nigeria. The study recommends that Deposit Money Banks should beef up their credit control and monitoring policies in order to minimize heavy impairment charges which adversely affect the banks' performance. Also, Deposit Money Banks should design and implement their own internal prudential guidelines with shorter periods for detection of early warning signals on loans and non-loan exposures as a means of self-regulation for improved performance.

Keywords: Governance, Regulation, Impairment Charges, Domestic Systemically
        Important Banks.

JEL Classification:M40, M41

1. INTRODUCTION

Over the years, a lot has been said and written on non-performing loans and its effect on the performance of deposit money banks in Nigeria. Notwithstanding the existence of Central Bank of Nigeria Prudential Guidelines, billions of naira is reported as impaired risk-assets from loan and non-loan impairment charges annually by the Deposit Money Banks (DMBs). These impairments originating from delinquent loan and non-loan transactions have greatly affected shareholders value creation in these banks in terms of earnings per share (EPS) accruing to shareholders annually. Previous studies (Kavata, 2016; Nyarko-Basi, 2018; Ozurumba, 2016; Parab, 2018 etc)which are the recent studies conducted locally and globally in this field concentrated solely on loan impairments without expanding their scope to capture non-loan impairment charges incurred by deposit money banks. The continuous neglect of non-loan impairment charges (NLIC) has motivated this comprehensive research to review the effect of loan and non-loan aspects of impairment charges on Deposit Money Banks in Nigeria. This paper is structured into five sections. Following the introduction, section two discusses the literature review under three sub-heads as: conceptual review, theoretical review and review of empirical studies. Section three harps on the methodology. This is followed by section four which focuses on estimation results and discussion of findings, and finally, section five presents the conclusion and recommendations.

2. REVIEW OF RELATED LITERATURE

2.1 Conceptual Review
Impairment Charges (IC)
IC is deterioration in the realizable value of firm's assets. Impairment is an accounting principle that describes a permanent reduction in the value of a company's asset. Impairment testing is done on total profit, cash flow, or other benefit that is expected to be generated by a specific asset periodically in comparison with same asset's book value. Where it is found that the book value of the asset exceeds the cash flow or benefit of the asset, the difference is written off and the value of the asset declines on the company's balance sheet (Kenton, 2017). Impairment of an asset only occurs when the difference between fair value and the carrying amount is deemed to be irrecoverable; all assets are considered to be impaired when the fair value falls below the book value under Generally Accepted Accounting Principles (GAAP).

Loan Impairment Charges (LIC)
LIC is deterioration in the realizable value of loans & advances or risk assets extended to banks' customers for which principal and interest repayments are irrecoverable to the deposit money banks. The occurrence of this event results in reduction in the earnings of the affected bank and its shareholders.

Non-loan impairment Charges (NLIC)
NLIC is deterioration in value of assets or investments financed by deposit money bank on behalf of their customers for which agreed principal and interest repayments from the financed assets or investments are irrecoverable. The occurrence of this event also results in reduction in the earnings of the affected bank vis-a-vis the shareholders.

Earnings per share (EPS)
EPS is one of the performance indicators firms' use in assessing their level of performance at the end of its accounting year, that is, whether the business is profitable or not. Therefore,EPS represents a firm's profit that is allocated to the owners

of the business. Kelley & Hora (2008) stated that Earning Per Share is another accounting-based profitability ratio, which provides information to investors about the value of a share. Impairments can greatly affect performance indices (EPS) for banks.

All licensed deposit money banks in Nigeria are required by policy to review their credit portfolios continuously (at least once in a quarter) with a view to recognizing any deterioration in credit quality that can result in impairment charges on their banks (CBN, 2010). The aim of the CBN prudential guidelines is for early detection of delinquent risk assets for remedial action before they are exposed to deteriorations that result in impairments at year end. Prior to adoption of International Financial Reporting Standard (IFRS) by banks in Nigeria in 2012, the concept 'impairment' was limited almost exclusively to trade accounts receivable or slow-moving inventories, impairment is now a concept intimately and definitively attached to almost every asset (Rodil, 2015). Most scholars (such as Kavata, 2016; Nyarko-Basi, 2018; Ozurumba, 2016; Parab, 2018 etc) concentrated their studies solely on loan impairment charges without extending their studies to other areas of impairment charges that affect the performance of deposit money banks in Nigeria. Non-loan risk-assets of deposit money banks that can expose them to impairments apart from loan are financial intermediation services on account receivables, prepayments, finance leases, operating leases, bonds & guarantees etc. Wall (2000) opined that bank's accounting for loan impairments might have a material effect on reported net income to investors and regulators. Wall (2000) further stated that bank's loan impairments might also significantly affect its ability to absorb unexpected future losses while bank that follows a conservative loan impairment philosophy may be better able to absorb unexpected losses with more freedom to manage reported earnings.

However, in an effort to research on the effect of impairments on banks' performance, Macharia (2012) articulated reasons for loan impairments to include: reduced attention to borrowers, macro-economic instability, unsound assessment mechanism, weak risk consciousness and lack of strict admittance/on boarding policies. According to CNBC (2018), non-loan impairment occurs when the realizable value of a non-loan risk-asset is zero or is lower than its recorded book value. This event would result in removing the risk-asset or liability from the financial statements of a company by moving a part of or all the balance in an asset accounts to an expense account which negatively affects financial performance in the long-run. Fernando and Ekanayake (2015) stated that decision-makers are far more concerned about losses than gains, therefore, if companies experience losses or earnings declines there will be a negative effect on credit ratings and shareholders will receive an unfavorable signal from the firms by way of reduced earnings per share or return on equity. Therefore, impairments from non-loans exposures would also negatively affect deposit money banks' performance and extensively impact on value creation maximization for shareholders on their investments.

Theoretical Review
Studies on performance measurement, revenue management and returns on investment are usually linked to both Shareholders' Value Maximization Theory and Agency Theory because, good performance results, efficiency in revenue retention and improved returns on investment are all to the benefit of both managers and shareholders despite the existence of conflict of interests between the principal (shareholders) and the agents (Managers). Both earnings per share (EPS) and return on equity (ROE) are good financial performance measures that are linked to the efficiency in utilization of

resources by the agents (managers) for the benefit of the principal (shareholders).

Basically, agency theory is based on the principle that managers are agents for managing the affairs of the company on behalf of the shareholders, but managers are not under obligation to maximize shareholders' wealth under agency theory, hence the adoption of Shareholders' Value Maximization theory as the most appropriate theory for this study.

Shareholders' Value Maximization Theory

Friedman (1970) founded the shareholders' value maximization theory. Friedman (1970) Shareholders' Value Maximization theory is based on the principle of social responsibility of businesses to the owners and the society by using business resources to engage in activities designed to increase business profits so long as it stays within the rules of the game, to engage in open and free competition, without deception or fraud as well as the business managers' responsibility to maximize shareholders' interest in the way permitted by law and social value. Shareholders' Value Maximization is measured by the returns accruing to shareholders from the business performance in terms of Earning Per Share (EPS), Return on Asset (ROA), Return of on Equity (ROE) etc. Shareholders' Value Maximization Theory is important for this study because every business exists for value maximization to both the owners (shareholders) and the society where it operates. Every company's main objective is to maximize shareholders wealth (Brigham & Daves, 2004). Therefore, impairment charges are drag-down on banks' earnings that would boost profitability to the benefit of better returns and earnings to shareholders. This implies that managers' business responsibility of improving shareholders' value maximization would be difficult to achieve by banks' management if revenues which would have resulted in better performance

(improved EPS, ROA, ROE) are spent on loans and non-loans impairments.

Review of Empirical Studies

Parab (2018) examined credit risk on public and private banks' performance in India through use of panel data on 40 commercial banks, comprising 24 public and 16 private banks which were listed on Bombay Stock Exchange. Credit risk ratios: Gross Non-Performing Asset ratio, Loan Loss Allowance to Total Advances, Capital Adequacy Ratio, Credit Deposit Ratio, Loan Loss Allowance to Non -Performing Assets, Loan Loss Allowance to Assets, and Advances to Assets were used as independent variables. Deposits and Bank's size were used as control variables. Return on Assets (ROA), return on Equity (ROE) and Net Interest Margin (NIM) were used as proxy for performance. Random Effect Model results revealed that Loan loss Allowance to Non-Performing Asset is significant and inversely influences all three performance indicators (ROA,ROE &NIM). Nyarko-Baasi (2018) examined the effect of non-performing loans on the profitability of commercial banks listed on the Ghana Stock Exchange with secondary data obtained from Standard Chartered Bank (SCG), ECO Bank Ghana (EBG), Ghana Commercial Bank (GCB) and Cal Bank Ghana (CBG) from 2006 to 2015. Panel regression with the aid of E-views, fixed effects model and Correlated Random fixed effects – Hausman test were employed in the analysis of effect of non-performing loans on profitability of the four (4) major banks listed on the Ghana Stock Exchange (GSE).Profitability was proxy by return on equity (ROE) whereas Non-performing loan ratio (NPLR) and capital adequacy ratio (CAR) were proxies for independent variables. Study result revealed that NPLR negatively affect profitability of banks, but rate of CAR and Bank Size showed significant positive relationships with profitability. However, Berger (1991) in a study of US banks stated that non-performing loan signal future problems which finally lead to an increase

in loan write-off (loan loss provisions) for banks which have already passed capital adequacy requirements.

Ajekwe (2017)examined the impact of IFRS adoption on the use of loan loss provisions (LLPs) in managing earnings and capital of fourteen (14) listed deposit money banks in Nigeria from 2009 to 2014 capturing the pre and post IFRS adoption periods. Paired sample t-test result provided quantitative evidence to show that there is significant increase in loan loss provisioning, and capital management by Deposit Money Banks in Nigeria in the post-IFRS adoption period compared to the pre-IFRS adoption period. Their results revealed that the levels of earnings smoothing are significantly lower in the post-IFRS period and has improved earnings quality because of reduced earnings smoothing in the banks.

Ozurumba (2016) examined the impact of non-performing loans on the performance of 3 selected commercial banks in Nigeria (2000 – 2013) comprising; Access Bank, United Bank for Africa and Union Bank of Nigeria Plc. The study was motivated to determine the effect of non-performing loans, provision for loan loss, loans and advances on the performance of banks using measures of Return on Assets and Return on Equity to measure performance. Ordinary least square method and ratio analysis were employed on secondary data obtained from annual report and accounts of the selected banks for the period. Result of analysis revealed that return on asset and return on equity have inverse relationship with non-performing loans and loan loss provision respectively, while both (ROA & ROE) are positively related to loans and advances. The researcher concludes that the effect of non-performing loans on commercial banks' performance was negative and cannot be underestimated thereby recommending for banks to maintain high credit standards while the Apex Bank (CBN) and other regulatory agencies should maintain high surveillance on banks' credit operations.

Kavata (2016) investigated the effect of non-performing loans (NPLs) on profitability of commercial banks in Kenya from 2006-2016. Secondary data obtained from Annual Reports and Accounts of eight (8) registered commercial banks in Kenya as at 2016 were used. It was found out that there is negative relationship between Non-performing loans ratio (NPLR) and return on assets. Result also shows that non-performing loans negatively affects profitability of commercial banks in Kenya. Profitability was measured by return on assets while Non-performing loans (Independent variable) was measured by NPLs ratio. Capital adequacy, Operational efficiency and Liquidity were used as control variables to test for accuracy and reliability. The study recommends that managers of Commercial banks in Kenya must work hard to enhance profitability of commercial banks and reduce occurrences of non-performing loans.

Nyarko-Baasi (2018) investigated the effect of credit risk management on the financial performance of 13 commercial banks in Jordan over the period 2005 -2013. Credit risk management indicators (such as capital adequacy ratio (CAR), ratio of non-performing loans to gross loans (NPL/GL), ratio of credit interest to credit facilities (CI/CF), leverage ratio and the ratio of facilities loss to net facilities (FL/ NL)) were used to measure financial performance (profitability) of commercial banks. Profitability was measured by ROA and ROE. Empirical finding from Panel regression, pooled least squares and correlation analyses on descriptive statistics shows that the ratio of non-performing loans to gross loans is positively related to financial performance but an inverse relationship was found between the ratio of facilities' loss to net facilities and financial performance. The study recommended an improvement in the credit management procedures through an establishment of appropriate policies.

Fernando and Ekanayake (2015) investigated a study on: Do commercial banks use loan loss provisions to smooth their income? Empirical evidence from (8) Sri Lankan commercial banks between 2003 and 2012. The study was motivated to ascertain whether Sri Lankan commercial banks use loan loss provisions to smooth their income. Banks' specific variables such as; capital adequacy ratio, change in total loans, change in non-performing loans, total loans, non-performing loans, earnings before tax and provisions, loans to deposit ratio and log value of total assets were used. Sample data analyses were done on three major categories; Public Sector Banks, Systematically Important Private Banks and Small Private Banks. The findings revealed that private domestic licensed commercial banks use loan loss provisions to smooth their income while the public-sector banks do not. Loan loss provisions of banks to a large extent depend on the four bank specific variables. Findings further revealed that banks with high level of loan growth are associated with a reduced level of problem-loans. Study recommended important policy framework for bankers and regulators to address income smoothing activities of financial sector in Sri Lanka.

Nkegbe and Yazidu (2015) investigated the trends and determinants of bank performance in Ghana using Panel data regression models, graphs and equations on secondary data from the annual reports of 27 banks over the period 2000-2010.Performance (profitability) was measured by Return on Equity (ROE), Return on Asset (ROA) and Net Interest Margin (NIM) while determinants of profitability were measured by liquidity, non-performing loans (NPL), bank size (MSL) and operational efficiency. The study reported a negative trend in bank performance (ROE & ROA) in relationship NPL. The study recommended for training to the informal sector on financial statement preparation as a means of dealing with NPL.

Ojo and Somoye (2015) studied the impact of commercial banks' non–performing loans on financial development in Nigeria. The objective of the study was to review impact of non-performing loans on financial development of 22 Deposit Money Banks in Nigeria (1981-2012). The study made use of Error Correction Models (ECM) econometric technique, unit root causality and co-integration tests time series to analyze the impact of non-performing loans on the level of financial development in Nigeria. The researcher found out that non-performing loans, commercial bank interest rate, liquidity ratio and inflation exert long-run negative relationship and significant influence on financial development.

Uwuigbe, Ranti and Babajide (2015) examined the effects of credit management on banks' performance in Nigeria. The panel linear and cross-sectional regressions were applied on secondary data obtained through purposive sampling method from the audited corporate annual financial statement of ten (10) listed banks (2007-2011). The resultsrevealedthat ratio of non-performing loans and bad debts have a significant negative effect on the performance of banks in Nigeria.

Bebeji (2014) examined the impact of loan loss provisions on banks' credits in Nigeria before and after the consolidation era on ten (10) sampled banks over a seven- year period 2002- 2008using historical approaches and descriptive statistics. The researcher adopted a paired sampled t-test to test the research hypothesis whose result revealed that loan loss provisions have negative impact on banks credits in Nigeria. Study recommended that the regulatory authorities should evolve tighter limits on excessive concentration of risk and tightening provisioning requirements on non-Performing loans.

Kolapo, Ayeni and Oke (2012) investigated the quantitative effect of credit risk on the

performance of 22 commercial banks in Nigeria. A sample of five (5) commercial banks was selected on cross sectional basis for 11 years (2000-2010). The traditional profit theory measured by Return on Asset (ROA) was formulated. The ratio of Non-performing loan to loan & Advances (NPL/LA), ratio of Total loan & Advances to Total deposit (LA/TD) and ratio of loan loss provision to classified loans (LLP/CL) were used to measure credit risk. The study used Panel model analysis to estimate the determinants of the profit function. The result showed that credit risk measurement variables (NPL/LA, LA/TD & LLP/CL) have negative effect on banks' performance (ROA) and the results did not vary among the variables. This implies that the effect is similar across banks in Nigeria, although the degree to which individual banks are affected is not captured by the method of analysis employed in the study.

Kargi (2011) evaluated the impact of credit risk on the profitability of 22 Nigerian banks using financial ratios and regression techniques on data collated from annual reports and accounts of sampled banks (2004-2008).The study revealed that credit risk management has a significant impact on the profitability of Nigerian banks and therefore concluded that banks' profitability is inversely influenced by the levels of loans and advances (LAD), non-performing loans (NPL) and deposits (D). The study concluded that these variables LAD, NPL and Dcan expose banks to great risk of illiquidity and distress. No wonder, (Dong, Liu and& Hu, 2012) opined that banking institution should establish a scientific and rational system of loan loss provisions to address financial risk.

Kithinji (2010) assessed the effect of credit risk management on the profitability of Deposit Money Banks in Kenya using data on the amount of credit, level of non-performing loans and profits (2004 -2008) to reach the findings that the bulk of the profits of Deposit Money Banks are not only influenced by the amount of credit and non-performing loans, however there are other variables (non-loan losses) other than level of credit and non-performing loans that affect banks' profitability.

Notwithstanding the variations in findings by prior studies reviewed, there seem to be a point of convergence in their conclusion that loan losses (impairment charges) have negative effect on deposit money banks' performance irrespective of local or cross-border study. However, a critical element was not considered in all the studies reviewed both locally and internationally. None of the studies to the best knowledge of the researcher considered Non-loan Impairment Charges (NLIC) arising from banks' transactions on financial intermediation services. These non-loan impairments occur due to delinquent account receivables, prepayments, finance leases, operating leases, bonds & guarantees, and commercial papers, which also affect deposit money banks' performance when impaired. Kithinji (2010) conceptualized this gap in the conclusion of his study that there are other variables (non-loan losses) other than level of credit and non-performing loans that affect banks' profitability but did not subject the conclusion to further empirical analysis. The non-inclusion of non-loan impairments variables by prior studies to measure DMBs performance is the gap that motivated this study.

3. METHODOLOGY
This study employed the ex-post facto research design. The population of the study consists of the sixteen (16) Deposit Money Banks listed on the Nigeria Stock Exchange as at December 31, 2018. Secondary data were generated from NSE fact books and annual reports &accounts of eight (8) sampled Deposit Money Banks for eleven years (2008-2018) using purposive sampling technique. Data generated were analysed using Panel Least Square (PLS) regression, Granger Causality test and

Hausman test with the aid of E-View 9.0 statistical software. The model specification for this study consists of Loan Impairment Charges(LICs),Non-Loan Impairment Charges (NLICs), Earnings per Share (EPS) and Return on Equity (ROE).However, this study adapted (Ismaila & Damola, 2017) model specification on Regulatory Non-Compliance and modified the model to incorporate loan impairment charges and non-loan impairment charges incurred by deposit banks as shown below:

Performance = f(LIC, NLIC*)............(1)*

The static linear model is presented in the second equations

$EPS_{it} = \beta_0 + \beta_1 LIC_{it} + \beta_2 NLIC_{it} + \varepsilon_{it}, BSZ_{it}, LEV_{it}$ .... (2)

The study's model specification is further broken down to capture the effect of each of the independent variables on Earnings Per Share.

$Y = f(X) + \mu$

The above model could be re-constructed as thus;

$$EPS_{it} = \beta_0 + \beta_1 LIC_{it} + \beta_2 BSZ_{it} + \beta_3 LEV_{it} + \mu_{it}$$
- - - **H₁**

$$EPS_{it} = \beta_0 + \beta_1 NLIC_{it} + \beta_2 BSZ_{it} + \beta_3 LEV_{it} + \mu_{it}$$ - - - **H₂**

Where:
β_0 = Intercept of the regression
$\beta_1, \beta_2, \beta_3$, = Coefficients of Loan Impairment and Non-Loan Impairment Charges Indices
μ_{it} = error term capturing other explanatory variables not explicitly included in the model of bank í in period t
Y = dependent variable (Performance)
X = independent/explanatory variable (Loan Impairment and Non-Loan Impairment Charges)
EPS_{it} = Earnings per Share of bank í in period t (dependent variable)
LIC_{it} = Loan Impairment Charges of bank í in period t (independent variable)
$NLIC_{it}$ = Non-Loan Impairment Charges of bank í in period t (independent variable)
FSZ_{it} = Firm Size of bank í in period t (control variable)
LEV_{it} = Leverage of bank í in period t (control variable)
í = individual bank (1, 2 ….. 8)
t = time period (1, 2 ..... 10)

4. ESTIMATION RESULTS AND DISCUSSION OF FINDINGS

Table 1.1: Descriptive Statistics

	EPS	**LIC**	**NLIC**	**BSZ**	**LEV**
Mean	0.156	0.639	0.266	10.861	7.131
Median	0.155	0.475	0.27	10.8	5.975
Maximum	0.29	0.93	0.34	12.02	15.15
Minimum	0.05	0.34	0.12	9.93	3.27
Std. Dev.	0.081	0.184	0.141	0.769	3.924
Skewness	0.19	1.529	-0.342	0.195	0.895
Kurtosis	1.763	4.389	1.974	1.64	2.629
Jarque-Bera	0.698	4.702	0.634	0.834	1.392
Probability	0.705	0.095	0.728	0.659	0.499
Sum	1.56	5.39	5.66	108.61	71.31
Sum Sq. Dev.	0.059	0.306	0.178	5.321	138.606
Observations	88	88	88	88	88

Source: E-Views 9.0 Descriptive Output, 2019

Table 1.1 presents the descriptive statistics for the variables of the study. The observation of 88 in table 1.1 is as a result of the panel data set with the combination of time series data and cross sectional data (i.e 8 banks x 11 years). Mean is the most commonly used measure of central tendency. The standard deviation shows the deviation/dispersion/variation from the mean. It is a measure of risk. The higher the standard deviation, the higher the risk.

The standard deviation is a measure that summarises the amount by which every value within a dataset varies from the mean. It is the most robust and widely used measure of dispersion. The average earnings per share of deposit money banks in Nigeria are 15.6% with a maximum of 29%, a minimum of 5% with a standard deviation of 8.1%. The observed average loan impairment charges of the sampled banks are 63.9 percent, a minimum of 34 percent, a maximum of 93 percent, with a standard deviation of 18.4%. The observed average non-loan impairment charges of the sampled banks are 26.6%, a maximum of 34%, a minimum of 12 percent and standard deviation of 14.1%. Skewness indicates the symmetry of the distribution. A skewed distribution which is positive indicates scores that are clustered to the left, and the tail of the distribution extending to the right while a negatively skewed distribution demonstrates scores that are clustered to the right and the tale of the distribution extends to the left. Kurtosis on the other hand, defines the peak of the distribution. Positive kurtosis is indicated by a peak. Negative kurtosis is indicated by a flat distribution. But for non-loan impairment charges with a negative value of -0.342, all other variables are positively skewed.

Table 1.2: Pearson Correlation Matrix

	EPS	LIC	NLIC	BSZ	LEV
EPS	1	-0.305	0.485	-0.281	-0.033
LIC	-0.305	1	-0.234	0.153	-0.239
NLIC	-0.485	-0.234	1	0.379	0.611
BSZ	-0.281	0.153	0.379	1	0.738
LEV	-0.033	-0.239	0.611	0.738	1

Source: E-Views 9.0 correlation output, 2019

The results of the correlation analysis in Table 1.2, revealed that there was a negative correlation coefficient between LIC, BSZ, LEV and EPS by correlation factors of -0.305, -0.281 and -0.033 respectively. However, NLIC has negative correlation coefficient of -0.485 on EPS.

Test of Hypothesis 1

Ho$_1$: There is no significant effect of Loan Impairment Charges on Earnings per Share of listed Deposit Money Banks in Nigeria.

Table 1.3: Panel Least Square (PLS) Regression Analysis showing the relationship between LIC and EPS

Dependent Variable: EPS
Method: Panel Least Squares
Date: 05/10/19   Time: 12:15
Sample: 2008 2018
Periods included: 11
Cross-sections included: 8

Total panel (balanced) observations: 88

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.271162	0.224555	1.207553	0.2310
LIC	-0.091491	0.064884	-2.410075	0.0156
BSZ	-0.013209	0.019166	-0.689174	0.4928
LEV	0.003386	0.007446	0.454677	0.6506

R-squared	0.335498	Mean dependent var		0.198250
Adjusted R-squared	0.302574	S.D. dependent var		0.149122
S.E. of regression	0.149314	Akaike info criterion		-0.916825
Sum squared resid	1.694394	Schwarz criterion		-0.797723
Log likelihood	40.67299	Hannan-Quinn criter.		-0.869074
F-statistic	5.932382	Durbin-Watson stat		1.645571
Prob(F-statistic)	0.002934			

Source: E-Views 9.0 Panel Regression Output, 2019

Interpretation of Regressed Result

The regressed coefficient correlation result in table 4.3 shows a negative relationship between LIC (β_1=-0.091491) and EPS. The slope coefficients show that the probability value is $P(x_1=0.0156<0.05)$. This implies that EPS is negatively significant with LIC at 5%. The adjusted coefficient of multiple determinations (adjusted R-squared) obtained was 0.30 (30%). The adjusted R-squared value shows that 30% of the systematic variations in the dependant variable can be jointly predicted by all the independent variable (LIC, BSZ and LEV) while 70% was explained by unknown variables that were not included in the model. The overall significance of the model (Prob F-statistic = 0.002934) is statistically significant at 5%.

Decision:

Since the regression result shows that P-value of the test at 0.002934 is less than the critical value at 0.05, hence, H_1 is preferred over Ho. Thus, LIC has a negative and statistically significant relationship with EPS of quoted deposit money banks in Nigeria at 5% level of significance.

Table 1.4: Granger Causality Test showing the Causality between LIC and EPS
Pairwise Granger Causality Tests
Date: 05/10/19 Time: 13:14
Sample: 2008 2018
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
LIC does not Granger Cause EPS	64	5.11952	0.0110
EPS does not Granger Cause LIC		1.67978	0.1952

Source: E-Views 9.0 Output, 2019

Interpretation of Diagnostic Test

Table 1.4 shows that there is a uni-directional causality between EPS and loan impairment charges (LIC) since the causality runs from LIC to EPS at P-values of 0.0110 which is statistically significant at 5% level. Moreover, at two (2) lags there is a statistically significant relationship between L1C and EPS. This buttresses the fact that loan impairment charges influences EPS. Consequently, the null hypothesis is rejected for the alternative which states that that there is a significant relationship between loan impairment charges and performance (proxy by EPS) of listed deposit money banks at 5% significant level.

Table 1.5: Hausman Test Comparing FEM and REM between LIC and EPS

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	7.037253	3	0.0009

Source: E-Views 9.0 Hausman Output, 2019

Interpretation of Hausman Test

On comparison of the results between the fixed effect model (FEM) and random effect model (REM), the results of the Hausman specification test in tables 1.5 showed that the chi-square probability is significant at 5% with P-values of 0.0009 in table 1.5. The result suggests that the fixed effect regression model is most appropriate for the sampled data. Thus, this result corroborates the regression results in table 4.3 which uphold that there is significant relationship between loan impairment charges and performance (measured by EPS) of listed deposit money banks in Nigeria at 5% level of significance

Test of Hypothesis 2

Ho₂: There is no significant effect of Non-Loan Impairment Charges on Earnings per Share of listed Deposit Money Banks in Nigeria.

Table 1.6: Panel Least Square (PLS) Regression Analysis showing the relationship between NLIC and EPS

Dependent Variable: EPS
Method: Panel Least Squares
Date: 05/10/19 Time: 12:25
Sample: 2008 2018
Periods included: 11
Cross-sections included: 8
Total panel (balanced) observations: 88

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.060747	0.197167	0.308097	0.7589
NLIC	-0.386678	0.073780	-5.240953	0.0000
BSZ	-0.002547	0.016771	-0.151848	0.8797
LEV	-0.005734	0.006709	-0.854656	0.3954

R-squared	0.273010	Mean dependent var	0.198250
Adjusted R-squared	0.244313	S.D. dependent var	0.149122
S.E. of regression	0.129632	Akaike info criterion	-1.199524
Sum squared resid	1.277143	Schwarz criterion	-1.080423
Log likelihood	51.98097	Hannan-Quinn criter.	-1.151773
F-statistic	9.513560	Durbin-Watson stat	1.224642
Prob(F-statistic)	0.000021		

Source: E-Views 9.0 Panel Regression Output, 2019

Interpretation of Regression Result
The regressed coefficient correlation result in table 1.6 shows the existence of a negative relationship between NLIC ($\beta_{1=}$-0.386678); BSZ ($\beta_{2=}$-0.002547); LEV($\beta_{3=}$-0.005734) and EPS. The probability value for the slope coefficient shows that $P(x_1=0.0000<0.05;$ $x_2=0.8797>0.05;$ $x_3=0.3954>0.05)$. This implies that non-loan impairment charges have a statistically significant relationship with EPS at 5% significance level, while bank size and leverage have a statistically non-significant relationship with EPS respectively. The coefficient of determination obtained is 0.244 (24.4%), which is commonly referred to as the adjusted R^2. The cumulative test of hypothesis using adjusted R^2 to draw statistical inference about the explanatory variables employed in this regression

equation, shows that 24.4% of the systematic variations in the dependent variable (EPS) can be predicted by the independent variables (NLIC, BSZ and LEV) while 75.6% was explained by unknown variables that were not included in the model. The overall significance of the model (Prob>F value=0.000021) is statistically significant at 5%.

Decision:
Considering the overall P-Value =0.000021 which is less than the α-value (level of significance) at 5%, it is thus concluded that non-loan impairment charges has a significant negative relationship with EPS of listed deposit money banks in Nigeria at 5% level of significance. Hence, H_1 is accepted while Ho is rejected.

Table 1.7: Granger Causality Test showing the Causality between NLIC and EPS
Pairwise Granger Causality Tests
Date: 05/10/19   Time: 12:27
Sample: 2008 2018
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
NLIC does not Granger Cause EPS	64	0.84453	0.0300
EPS does not Granger Cause NLIC		1.43231	0.2469

Source: E-Views 9.0 Output, 2019

Interpretation of Diagnostic Test
Table 1.7 shows that there is a uni-directional causality between EPS and non-loan impairment charges (NLIC) since the causality runs from NLIC to EPS at P-values of 0.0300 which is statistically significant at 5% level. Moreover, at two (2)

lags there is a statistically significant relationship between NL1C and EPS. This buttresses the fact that non-loan impairment charges influences EPS. Consequently, the null hypothesis is rejected for the alternative which states that that there is a significant relationship between

non-loan impairment charges and performance (proxied by EPS) of listed deposit money banks at 5% significant level.

Table 1.8: Hausman Test Comparing FEM and REM between NLIC and EPS
Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	21.161148	3	0.0000

Source: E-Views 9.0 Hausman Output, 2019

Interpretation of Hausman Test
On comparison of the results between the fixed effect model (FEM) and random effect model (REM), the results of the Hausman specification test in table 1.8 showed that the chi-square probability is significant at 5% with P-values of 0.0000 in table 1.8. The result suggests that the fixed effect regression model is most appropriate for the sampled data. Thus, this result corroborates the regression results in table 4.43 which uphold that there is significant relationship between non-loan impairment charges and performance (measured by EPS) of listed deposit money banks in Nigeria at 5% level of significance.

Discussion of Findings
This study ascertained the effect of Loan Impairment Charges (LICs) and Non-Loan Impairment Charges performance of deposit money banks in Nigeria for the period 2008-2018. The independent variable (Impairment Charges) was measured using loan impairment charges and non-loan impairment charges while the dependent variable (performance) was measured by Earnings per Share (EPS). The study also employed bank size (BSZ) and leverage (LEV) as control variables to boost the study results.

Hypothesis 1
The regressed coefficient correlation result in table 1.3 shows a negative relationship between LIC (β_1=-0.091491) and EPS. The slope coefficients show that the probability value is $P(x_1=0.0156<0.05)$. This implies that EPS is negatively significant with LIC at 5%. The coefficient of determination (adjusted R-squared) obtained was 0.30 (30%). The adjusted R-squared value shows that 30% of the systematic variation in the dependant variable can be jointly predicted by all the independent variable (LIC, BSZ and LEV) while 70% was explained by unknown variables that were not included in the model. The overall significance of the model (Prob F-statistic = 0.002934) is statistically significant at 5%.

Hypothesis 2
The regressed coefficient correlation result for hypothesis 2 shows the existence of a negative relationship between NLIC (β_1=-0.386678); BSZ (β_2=-0.002547); LEV(β_3=-0.005734) and EPS. The probability value for the slope coefficient shows that $P(x_1=0.0000<0.05; x_2=0.8797>0.05; x_3=0.3954>0.05)$. This implies that non-loan impairment charges have a statistically significant relationship with EPS at 5% significance level, while bank size and leverage have a statistically non-significant relationship with EPS respectively. The coefficient of determination obtained is 0.244 (24.4%), which is commonly referred to as the adjusted R^2. The cumulative test of hypothesis using adjusted R^2 to draw statistical inference about the explanatory variables employed in this regression equation, shows that 24.4% of the

systematic variations in the dependent variable (EPS) can be predicted by the independent variables (NLIC, BSZ and LEV) while 75.6% was explained by unknown variables that were not included in the model. The overall significance of the model (Prob>F value=0.000021) is statistically significant at 5%.

5.0 CONCLUSION AND RECOMMENDATIONS

Conclusion
This study revealed that loan impairment charges and non-loan impairment charges have a significant negative relationship with earnings per share at 5% significant level. The result implies that loan impairment charges and non-loan impairment charges are very high amongst deposit money banks in Nigeria which is responsible for the occurrence of write-off charges reported by the deposit money banks annually in their financial statements. The result also implies that the current monetary-sanction approaches usually adopted by the Central Bank of Nigeria has not been able to curtail the recurrence of impairments charges and its negative effects on the performance of deposit money banks in Nigeria. This study concludes that impairment charges occur due to prudential guideline violations, Corporate Governance violations on Insider Related Credits and weak credit management & monitoring policies in the Deposit Money Banks in Nigeria as further research reveals that majority of the impairments originates from loans and non-loan transactions between DMBs and entities or persons related to Senior Management Officers of the banks.

Recommendations
Based on the findings of this study, the following recommendations have been outlined which may be useful to the stakeholders, such as banks employees, accountants, auditors, company management, investors, creditors, suppliers, financial analyst, lobby groups, community members, government and the regulatory bodies responsible for standards setting:

i. Deposit Money Banks should sensitize all their employees on the effect of loan impairment & non-loan impairment charges on the banks' performance (Earnings Per Share).

ii. Senior management staff of DMBs should ensure strict compliance with CBN codes of Corporate Governance especially, on approval of insider-related loans to curtail heavy impairment charges which adversely affect banks' earnings annually.

iii. Deposit money banks should closely monitor their non-loan risk assets which also adversely affect banks' earnings; hence, undermining shareholders' value maximization on investments in DMBs.

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