



Management Efficiency And Banks Performance

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ABSTRACT

The paper examined management efficiency and banks' performance in Nigeria. The focus was to determine how efficient the banks' management in Nigeria can manage deposit, assets, capital and shareholders' funds to maximize returns for the shareholders. The researchers employed ex post facto design. Unit root result suggested that autoregressive distributed lag is the most appropriate econometric tool for the analysis. Granger causality was also used to determine the cause and the direction of the data. The result of the analysis revealed that loan deposit ratio and loan assets ratio had no significant effect, loan capital ratio had a positive significant effect and loan shareholders fund ratio had a negative significant effect on bank performance in Nigeria. The researchers therefore recommended that: there should be a workable strategy for deposit mobilization by the bank management to maximize return on equity, the assets of the bank should be fully utilized to maximize return on equity, more capital should be injected in the Nigerian banking industry to increase return on equity etc.

Keywords: Management efficiency, Loan, Deposit, Capital, Shareholders' funds, Assets etc

INTRODUCTION

Management efficiency is one of the components of Camel rating. It shows how efficient bank management is able to manage deposits mobilized, assets, capitals, shareholders' funds, employees, inventories, assets etc. to generate profit (Ihenetu 2017). Banks makes profits by channeling these resources to the most productive ventures in an efficient and effective way.

According to Uniform Financial Institution rating system (1997), management efficiency is the capability of the management to identify, measure and control the risks of an institution's activities and to ensure the safe, sound and efficient operation with the applicable laws and regulations. It is the most single important element of Camel rating because banks' success depends on it (Grier 2007). Management efficiency shows how proficient a manager combines management team spirit, leadership skill etc to improve production (Mour nd). The concomitant effect is measured in both quality and quantity.

In banks, the effect is measured by return on investment/return on equity, return on assets, earning per-share etc. These variables are the key indices for measuring performance. Banks' performance is the mainstay of the banks. Return on investment is the key performance index of every bank (Ihenetu 2017). It shows how bank management is able to utilize the resources of the stakeholders to generate return or profit for them. If the return is appreciable, then more stakeholders may wish to join because of the attractiveness but if otherwise, even the shareholders may wish to pull out their funds. Thus the paper therefore seeks to evaluate the effect of management efficiency on the performance of banks in Nigeria.

Objectives

The objective is to determine the effect of management efficiency on the performance of banks in Nigeria. Specifically, the objectives are:

- i) To determine the effect of loan deposit ratio on return on investment/equity.
- ii) To evaluate the effect of loan assets ratio on return on investment/equity.
- iii) To examine the effect of loan capital ratio on return on investment/equity.
- iv) To examine the effect of loan shareholders funds' ratio on return on investment/equity.

Hypotheses

H₁: Loan deposit ratio has no significant effect on return on investment/equity.

H₂: Loan assets ratio has no significant effect on return on investment/equity.

H₃: Loan capital ratio has no significant effect on return on investment/equity.

H₄: Loan shareholders funds' ratio has no significant effect on return on investment/equity.

Literature Review

Conceptual Clarification

Loan deposit ratio: This shows the proportion of loan granted to the customers from the deposit mobilized from the public. The banks' management has to efficiently manage the funds to generate returns for shareholders. This is given as total loan/total deposit.

Loan assets ratio: This indicates the amount of credit issued to the customers from the banks' assets. The duty of the management is to efficiently galvanize these assets to generate returns for the shareholders. It is given as total loan/total assets

Loan capital ratio: This point to the amount of loan given to the customers from the available capital of the bank. The management has to efficiently harness the loan from the capital to make profits for the owners. This is given as total loan/total capital

Loan shareholders funds' ratio: Shareholders' funds constitute all the funds in the organization. This include share capital, share premium, retained earning etc. The bank management has to efficiently utilize these funds and lends it out to the credit worthy customers in order to generate profits for the shareholders. It is given as total loan/shareholders' funds

Theoretical Framework

The researcher adopted the following theory for the study.

(a) Efficiency Theory

The theory was propounded by Frederick Taylor in 1991. The theory encapsulated that human being can be programmed like machine to achieve maximum production. By this, he means that man can be self motivated especially when driven by economic gain to reach the optimum. This is done when his pay is tied to the work done (Ada & Ada 2013).

Bank management can borrow a lift from Taylor's efficiency theory. They should develop methods by means of motivation to motivate the workers and programme them like machine to ensure that the goal of the organization is achieved. When this is done, the return on equity will increase and the wealth of the shareholders will be maximized.

(b) Modern Management Theory

The theory states that management should adopt and incorporate technology in their organization. The theory emphasis that management should use mathematical techniques to analyze and understand the relationship between managers and employees alone but they should work for happiness satisfaction and fulfillment (Sling team nd).

This theory advocated that banks management should not only utilize all that technology can do but also ensure that banks workers are happy and fulfilled for their work in order to maximize their output.

(c) Economic Efficiency Theory

The theory posited that organization should adopt a measure of maximizing their output at a lower cost (price). The theory encapsulated that economics of scale can be achieved when optimal production is exploited. In the banks, the banks can make higher profit when they reduce the lending rates, aggressive

marketing and effective saving mobilization. The theory therefore emphasizes productive efficiency and allocative efficiency. Productive efficiency involves aggressive marketing, saving mobilization etc where as allocative efficiency includes lending rates. Banks can efficiently tap them to maximize shareholders wealth (Barus, Mutur, Kibati and Koima 2017).

METHODOLOGY

According to Ihenetu (2008), research design is a blue print, framework for collecting and analyzing data. The researcher adopted ex post facto design for the work. The fact that the data is a factual data collected from audited government publication without mixture necessitated the choice of the design.

The data were purely secondary data and collected from National Deposit Insurance Corporation 2018. The data collected here are very useful, valid and reliable having been audited by both internal and external auditors before publishing them for public consumption. The researchers therefore adopted them for subsequent utilization.

The researchers employed stationarity test, autoregressive distributed lag and granger causality tests. Unit root was used to determine the stationarity of the time series data employed. This is to ensure that employment of the data will not lead to spurious estimates. In this perspective, according to Brooks (2008), the Augmented Dickey Fuller (ADF) test is employed. The decision rule is to reject the null hypothesis if the ADF test statistic is absolutely greater than the corresponding Mackinnon’s Critical Values at 5% levels of significance.

ARDL was developed by Pesaran & Shin (1999). The test was adjudged to be superior to Johansen’s cointegration because of the following: firstly, it requires small sample size. Two sets of critical values are provided, low and upper values bounds for all classification of explanatory variables into pure I(1), I(0) or both Secondly, Johansen’s procedure requires that the variables should be integrated of the same order, where as ARDL does not require that the variables should be integrated of the same order. Thirdly, ARDL approach provides an unbiased longrun estimates with valid t-statistic if some of the model regressors are endogenous. Fourthly, this approach provides a method of assessing the short run and long run effects of one variable on the other and as well separate both once an appropriate choice of the order of the ARDL model is made. In this regard, Akaike info criterion (AIC) is chosen.

The mathematical model is given as:

$$ROE = f(LDR, LAR, LCR, LSR) \text{ -----equ.1}$$

This model can be transmodified to econometric model as:

$$ROE = \beta_0 + \beta_1LDR + \beta_2LAR + \beta_3LCR + \beta_4LSR + \mu \text{ -----equ. 2}$$

This can be converted to autoregressive distributive lag (ADRL) as:

$$\Delta DROE_t = \alpha_0 + \sum_{i=1}^n \beta_{1i} \Delta DROE_{t-1} + \beta_1 \Delta DROE_{t-1} + \sum_{i=0}^n \beta_{2i} \Delta DLDR_{t-1} + \Delta \beta_2 DLDR_{t-1} + \sum_{i=0}^n \beta_{3i} \Delta DLAR_{t-1} + \beta_3 \Delta DLAR_{t-1} + \sum_{i=1}^n \beta_{4i} LCR_{t-1} + \Delta DLCR_{t-1} + \sum_{i=0}^n \beta_{5i} \Delta LSR_{t-1} + \beta_5 \Delta LSR_{t-1} \text{ ----- equ. 3}$$

DATA PRESENTATION AND ANALYSIS

The data used for the work is presented below:

Table 1 Return on equity (ROE), Loan deposit ratio, Loan assets ratio, Loan capital ratio and Loan share holders funds' ratio all in percentage

Years	ROE	LDR	LAR	LCR	LSR
2006	17.36	83.23125	34.88981	284.0015	283.9986
2007	23.07	87.29075	35.93978	467.6013	283.4145
2008	22.12	85.16927	38.47891	699.8517	148.199
2009	-64.72	89.2124	50.86008	404.7587	1984.931
2010	162.98	66.13147	38.40446	1668.24	2294.391
2011	-0.2	58.99213	33.22618	382.7654	375.917
2012	22.2	56.65251	33.15089	373.3083	379.0148
2013	19.14	59.88532	43.34982	415.8202	415.2442
2014	20.34	70.0486	48.13388	438.3752	517.4559
2015	19.78	76.12815	42.46386	411.5245	479.5252
2016	12.56	87.65101	46.03151	523.7223	614.8784
2017	4.7	82.10162	41.3063	722.9081	905.3335
2018	9.73	70.39282	36.34884	479.5818	541.2793

Source: NDIC annual report and account (2006-2018), percentages calculated by the authors

Table 2 Stationarity (Unit Root) Test Results

Variables	Level	1 st difference	Order of Integration	Remark
DROE	-5.680516	-	I(0)	Stationary
DLDR	-6.446875	-	I(0)	Stationary
DLAR	-3.056349	-3.203450	I(1)	Stationary
DLCDR	-3.965795	-	I(0)	Stationary
DLSR	-3.026929	-3.429740	I(1)	Stationary

Significant at 5% level, ADF test > Critical Value, then the variable is stationary

Source: Extracts from E-Views 9 Output

Table 2 presented the unit root stationarity test results for the employed data. Generally, the absolute values of the ADF test statistic for all the employed study variables were greater compared to all their corresponding Mackinnon's critical values at 5%. In all, the ROE, LDR and LCDR variables were integrated at order I(0), where as LAR and LSR variables were integrated at order I(1). Since these variables are stationary at 5% level of significant, they are therefore deemed fit for utilization and subsequent estimations.

Akaike Information Criteria

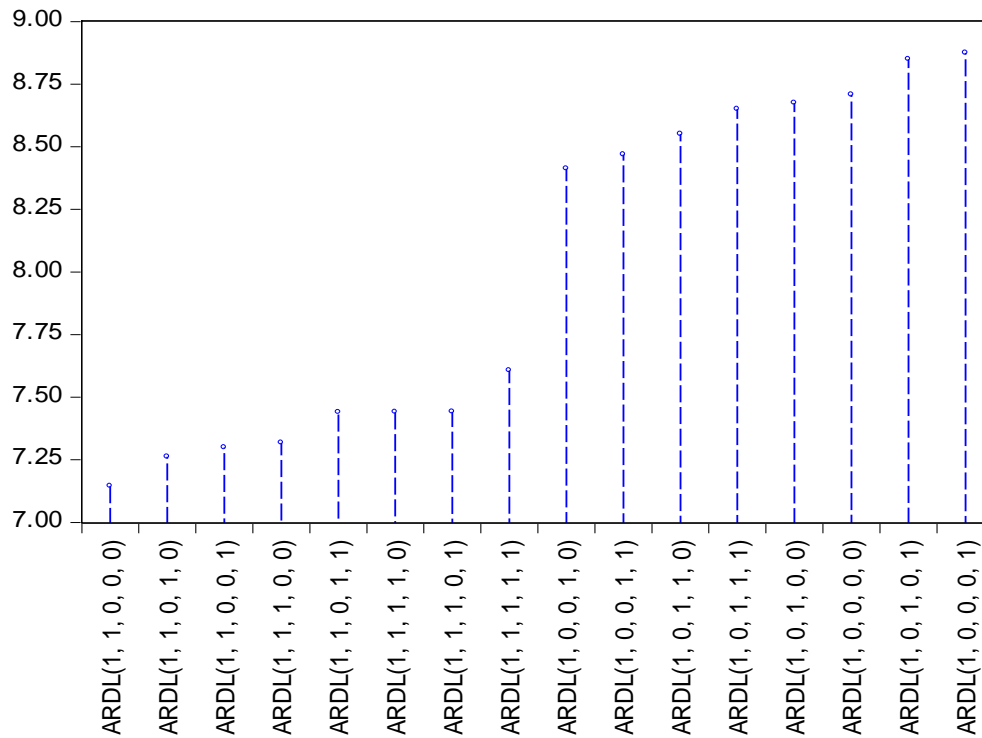


Figure 1 Auto-Regressive Distributed Lag (ARDL) Model selection test result

The use of this approach is guided by the short data span. The researcher chose maximum lags order of 1 for the conditional ARDL vector error correction model by using the Akaike information criteria (AIC). Number of models evaluated was 16 and the result showed that the best model is ARDL (1,1,0,0, 0) which was summarised above.

Table 3 Auto-Regressive Distributed Lag (ADRL) shortrun result

Variables	Coefficient	t-statistic	Prob.
DLDR	0.824577	1.321367	0.2436
DLAR	-0.313042	-0.320904	0.7613
DLCR	0.124563	6.577853	0.0012
DLSR	-0.031328	-3.202005	0.0239

R-squared 0.975520
 Adjusted R-square 0.946145
 S.E. of regression 11.79835
 Sum squared resid 696.0057
 Log likelihood -41.38997
 F-statistic 33.20850
 Prob(F-statistic) 0.000713
 Durbin watson 1.362272

Source: Extracts from E-Views 9 Output

Table 3 showed that loan deposit ratio (LDR) had no significant effect on the return on equity under the period of the study. The probability of the t-statistic 0.2436 was more than 0.05 power of test. The coefficient 0.824577 showed positive but no significant effect on the return on equity.

Secondly, the analysis further revealed that loan assets ratio (LAR) had no significant effect on the return on equity under the period of the study. The probability of t-statistic 0.7613 was more than 0.05 power of test. The coefficient of -0.313042 showed negative but no significant effect on the return on equity.

Thirdly, the analysis also confirmed that loan to capital ratio (LCR) had a positive and significant effect on return on equity. The probability of the t-statistic 0.0012 was less than 0.05 power of test. The coefficient 0.124563 showed that 1% increase in capital, increases the return on equity by 12.46%.

Fourthly, the analysis also confirmed that loan to shareholders funds' ratio (LSR) had a negative and significant effect on return on equity. The probability of the t-statistic 0.0239 was less than 0.05 power of test. The coefficient -0.031328 showed that 1% increase in shareholders' funds, decreases the return on equity by 3.13%.

The result of the ARDL showed that the model had a good fit on the data. This is demonstrated by the high values of coefficient of determination (R^2) of 0.975520 (97.55%) and the adjusted R^2 of 0.946145 (94.61%). This implied that variations in all the explanatory variables account for 94.61% of the variations in return on equity, while the rest 5.39% of the variations was attributable to other variables not captured in the study.

The F-statistic measures the overall significance of the model. The F-statistic was 33.20850 and the probability of F-statistic 0.000713 which was less than 0.05 power of test. This meant that loan to deposit ratio, loan to assets ratio, loan to capital ratio and loan to shareholders' fund ratio had significant effect on return on equity within the period of the study. 37.41788 in the regression equation was constant, autonomous and uninfluenced intercept that did not change by the changes of the independent variables.

Durbin Watson 1.362272 suggested the presence of serial correlation. However, the existence of such serial correlation was subjected to further confirmatory test visually displayed in the form of residual plots and the result revealed that the residuals were uncorrelated with past inputs. Hence, there was no fear of relevant statistics been inflated or probability of deriving incorrect estimation.

Table 4 Granger Causality Tests

Pairwise Granger Causality Tests

Date: 10/07/20 Time: 16:22

Sample: 2006 2018

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
DLDR does not Granger Cause DROE	11	0.52608	0.6159
DROE does not Granger Cause DLDR		1.89061	0.2308
DLAR does not Granger Cause DROE	10	0.10446	0.9027
DROE does not Granger Cause DLAR		0.30251	0.7516
DLCR does not Granger Cause DROE	11	3.86098	0.0836
DROE does not Granger Cause DLCR		7.47128	0.0235
DLSR does not Granger Cause DROE	10	9.94540	0.0181
DROE does not Granger Cause DLSR		1.66735	0.2787
DLAR does not Granger Cause DLDR	10	0.86024	0.4774
DLDR does not Granger Cause DLAR		0.28767	0.7616
DLCDR does not Granger Cause DLDR	11	0.58465	0.5862
DLDR does not Granger Cause DLCR		1.71151	0.2582
DLSR does not Granger Cause DLDR	10	0.44114	0.6661
DLDR does not Granger Cause DLSR		2.77654	0.1545
DLCR does not Granger Cause DLAR	10	0.95700	0.4447
DLAR does not Granger Cause DLCR		1.56520	0.2966
DLSR does not Granger Cause DLAR	10	1.68520	0.2758
DLAR does not Granger Cause DLSR		1.04778	0.4168
DLSR does not Granger Cause DLCR	10	37.3406	0.0010
DLCR does not Granger Cause DLSR		0.67223	0.5514

Source: Extracts from E-Views 9 Output

From table 4 there existed a uni-directional relationship between return on equity (ROE) and loan capital ratio (LCR) ie return on equity (ROE) granger caused loan capital ratio (LCR) in Nigeria (ROE \longrightarrow LCR).

Also, there exists a uni-directional relationship between loan shareholders funds' ratio (LSR) and return on equity (ROE) ie loan shareholders funds' ratio (LSR) granger caused return on equity (ROE) in Nigeria (LSR \longrightarrow ROE).

Also, there exists a uni-directional relationship between loan shareholders funds' ratio (LSR) and loan capital ratio (LCR) ie loan shareholders funds' ratio (LSR) granger caused loan capital ratio (LCR) in Nigeria (LSR \longrightarrow LCR).

These findings implied that loan shareholders funds' ratio (LSR) and loan capital ratio (LCR) were likely critical drivers of bank performance in Nigeria.

CONCLUSION AND RECOMMENDATIONS

The research was conducted on management efficiency and the performance of banks in Nigeria. Theories of management efficiency were thoroughly examined. The concepts used were clarified. The findings revealed that loan deposit ratio and loan assets ratio had no significant effect on banks' performance in Nigeria where as loan capital ratio and loan shareholders funds' ratio had positive and negative significant effect on banks' performance in Nigeria respectively. The findings from loan deposit ratio and loan assets ratio presupposed that the management of Nigeria banks had not fully harnessed the potentials of their assets and deposit from the public. The implication is that much money is still laying outside bank. The implication of loan capital ratio is that more capital will stimulate return on equity and that of shareholders funds' is that the equity base is diluted as a result of the too many shareholders.

The researchers based on the findings recommend the following:

- There should be a workable strategy for deposit mobilization by the bank management to maximize return on equity.
- The assets of the bank should be fully utilized to maximize return on equity
- More capital should be injected in the Nigerian banking industry to increase return on equity.
- The bank management should try to avoid the dilution of the equity base of the shareholders to avoid negative effect on return on equity.

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