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# Influence of Internal Factors on the Financial Performances: An Empirical Study on Nigerian Deposit Money Banks

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Abstract: This study examines the influence of internal factors on financial performance in Nigerian deposit money banks by using panel data of banks over the period 2009 to 2019. Since the data is secondary in nature, the quantitative approach to research was considered. Besides, the fixed effect model was used. The fixed effect model is preferred to the random effect model based on the Housman specification test. Under this study, internal and factors were examined. The internal factors used in this study include capital structure; Income Diversification, operating cost and bank size whereas, ROA and ROCE were used as the financial performance measure. Based on the regression result, all bank specific variables except bank size affect performance of the bank significantly but negatively. While based on correlation analysis, Bank size was positively correlated with ROCE. These clearly shows that, as the bank size increases, ROCE also moves on the same direction. On the other hand, the income diversification, capital structure and operating cost were negatively correlated with ROCE. Also, as the income diversification, capital structure and operating cost increases, ROCE moves in opposite direction. Moreover, the capital structure and the operating cost negatively correlated with ROA. This indicates that as capital structure increases, ROA moves to the opposite direction. On the other hand, income diversification and bank size were positively correlated with ROA. Based on the empirical findings, both capital structure and operating cost negatively and significantly affect performance measured by ROA and ROCE.

Keywords: Internal factors, Financial Performance, Deposit Money Banks, Nigeria.

#### 1.1 INTRODUCTION

The banking system is definitely the engine of growth in any economy, given intermediation, banks' facility to engender economic growth and development, soundness and strength of the system. There can be no growth without internal factors taking into consideration. However, if internal factors are not properly managed and controlled, they can affect the company's capacity to attain its objectives. Therefore, internal factors plays a key role in directing and guiding the company's sound and profitable banking sector stands better able to withstand negative shocks and contribute to the stability of the financial structure (Anna and Hoi 2008). Therefore, the effect of internal factors on bank performance has attracted the attention of academic research as well as of bank management and other bank staff.

Even though different studies are conducted on the effect of inflation rate on banks performance, their result is not conclusive as far as the impacts of other factors are concerned. This implies that, there is no consensus in the banking literature regarding the internal factors effect on bank performance. In Ethiopia, different studies are shown on the determinants of the commercial bank performance but the writers didn't include important variables like capital structure and effective tax rate as a variable. Since capital structure and effective tax rate are major various activities by continually preventing and managing risks from internal factors. The need for a strong, consistent and viable banking system cannot be overstated being the main contributor to the Nigerian economy (Kumbirai and Webb 2010).

Failures to properly manage internal factors by bank's management will bring countless problems upon such banks which can ultimately lead to its collapse. In the course of operations, banks are invariably faced with different types of risks that may

have a potentially negative effect on their business. Hence, these risks need to be identified and properly managed, pointed out Ghazouani and Moussa, (2013),

The financial services sector in Nigeria comprises of banking institutions, insurance companies, stock markets and development finance institutions. As a matter of fact, Nigerian banks play essential role in overall productivity of financial services contributing around 86 percent in local market and prove one of the most important sectors of the economy (Aurangzeb, 2012). In addition, the money depositl banks also provide the main sources of finance to other business sectors in Nigeria (Sufian and shah, 2009). Therefore, the presence of an active banking system in Nigeria is a basic requirement for more effective utilization of the available economic resources (Brissimis and Delis, 2006).

#### 1.2. Statement of the Problem

Internal factors will no doubt affect the proportion of the growth rate of the organization that will eventually improve firm's performances. Nigerian deposit money Banks play a vital role in the economic growth of the countries. For example, they distribute resource and channel funds from depositors to investors continuously (Bashir, 2002). They do so, if they get required earnings to cover their operational cost they incur. That is to say, for maintainable intermediation role, banks need to be profitable further suggested Bashir, (2002).

Beyond the intermediation function, the financial performance of banks has critical implications for economic growth of countries. Respectable financial performance rewards to the shareholders for their investment. This gives more assurance for additional investment and brings about economic growth. On the other hand, deprived bank performance may lead to banking failure and crisis which have negative significance on the economic growth (Soumadi and Suhail 2011).

Today it becomes very essential for Nigerian deposit money banks to examine their performance because their survival in the dynamic economic environment will be dependent upon how internal factors been manage depends on their performance. Thus, a number of studies have examined the effect internal factors on banks' performance in many countries around the world, but to what extent does an internal factor affect both return on asset and return on capital employed in Nigerian deposit banks? So, its safety and successful operation captures the interest of different researchers and other professionals.

The above statement of problem calls for more academic research or investigation and assessment to bring more about the reliable ideas and findings regarding the assessment of internal factors on financial performance in selected Nigerian deposit money banks.

#### 1.3 Research Questions

- I. To what extent does an internal factor affect return on asset in Nigerian deposit money banks?
- II. To what level do internal factors have influence on return on capital employed in Nigerian deposit money banks?

#### 1.4 Objectives of the study

The general objective of this study was to examine the effect internal factors on financial performance of Nigerian deposit money banks. The specific objectives of the research includes:--

- I. To examine the impact of internal factors on return on asset in Nigerian deposit money banks.
- II. To examine the impact of internal factors on return on capital employed in Nigeria's deposit money banks.

#### 1.5 Research Hypotheses

In order to attain the objective of the study, the following hypotheses are developed based on review of relevant and related literatures on the performance of Nigerian deposit money banks to be tested

Ho1: Internal factors have no significant effect on return on asset in Nigerian deposit banks.

Ho2: Internal factors have no significant effect on return on capital employed in Nigerian deposit banks.

#### 1.6 Significance of the Study

This empirical study which deals with the effect of internal factors on financial performance of Nigerian deposit money banks is beneficial for different stakeholders such as for the researcher, Banks managers and executives and for other researchers. For the researcher, the result of this study inductee for further research.

Furthermore, this study initiate the deposit money Banks managers and executives to give due emphasis on the management of recognized internal factors variables and provides them with understanding of activities that improve their

banks performance. Finally, the result of the study is used as a reference by other researchers; thus, it can reduce the literature gap in the area of the study especially in Nigeria

#### 2.0 LITERATURE REVIEW

#### 2.1 Concept of Economic Significance of Banks

The existence of a strong and effective banking system is very significant to the economic development of a country. According to Habtamu (2012) banks always acceptance deposit of money from persons who do not need it at the present and giving it to persons who want it for venture, serve as financial mediators thereby provided that ideal source of fund for investment that is vital in increasing production, exports, creation of jobs and foreign exchange earnings of the country. Likewise, bank giving to customers who need the money for different purposes such as consummation, purchase of various goods and services, construction of houses, and education developments demand for those goods and services, thereby inspiring producers and service benefactors to expand their activities and increase production (Belayneh, 2011).

However, such interest should not depress people from investment and productive events and turn them to rent collection /potential stakeholders may decide to deposit their money and bring together interest. According to Ghazouani and Moussa, (2013) if the rate of interest charged by banks on money agreed on loan to borrowers is lower, it may buoy up potential borrowers and investors to borrow and finance, thereby contributing their share in the expansion and increase of production of goods and services, creation of new employment opportunities, rise in exports and foreign exchange earnings of the country. The presence of a network of banks covers the country facilities business transactions in the country by making payments at ease, safer and cheaper. Payment through banks also evades the risk of loss or theft of money (Brooks, 2008).

#### 2.1.1 Factors Influence Banks Performance

Many studies undertaken on the performance of banks submit that banks performance is influence by both internal and external factors (Alkhatib, 2012; and 2013; Ezra,2013) and these factors affect the performance of banks can be positive or negative. Nassreddine et al. (2013) stated that some of the factors that influence the performance of the bank which could be control by banks management and the others could be beyond management's control, examined by Soumadi and Suhail, (2011).

Those factors which could be control by the management are known as internal or bank specific factors. According to Athanasoglou et al. (2012) they are called bank specific factors because liable on the likely effect they have on the turnover of the bank they can be strengthened (positive treatment) or weakened (negative treatment) by the management of the bank. The major internal factors that affect performance of banks include: earnings quality, asset quality, management efficiency, human capital, liquidity, capital structure, technology, bank size, loan performance and income divergence among others (Tan and Floros, (2012). However, those factors that are beyond the management's control are mentioned as external or macroeconomic factors and these factors are related to the industry also known as macroeconomic factors. These factors include: bank concentration, effective tax rate, inflation, real GDP growth, interest rate, among others, further suggested Masood and Ashrat (2021).

#### 2.1.2 Measures of Bank Performance

Studies made on the performance of banks largely used ROA, and ROCE as a common measure (Ezra, 2013).

#### **Return on Asset**

The Return on Asset, (ROA) reflects the capacity of a bank's management to generate returns from the bank's assets. It shows the returns earned per assets and indicates how effectually the bank's assets are managed to generate incomes, although it might be biased payable to off-balance-sheet activities. This is probably the most vital single ratio in relating the efficiency and operating performance of banks as it indicates the earnings generated from the assets that bank possess (Tan et al. 2012).

#### **Return on Capital Employed**

Return on capital employed is the return on capital contributed by shareholders on the company's capital employed. This means that, return on capital employed reflects the capability of a bank in operating its capital employed to generate returns (Tan et al.2012). Dietrich et al. (2009) pointed out that, banks with a lower leverage ratio (higher equity) report a higher ROA, but a lower ROCE. However, the ROCE disregards the higher risk that is related with a higher leverage. Even if ROCE is commonly used in different studies, it is not the best measure of profitability (Ghazouani et al. 2013).

#### 2.2 Theoretical Review

The researcher can clarify the theoretical review for the relationship between internal factors indicators (bank size, income diversification, capital structure and operating cost) and financial performance proxies (return on asset and return on capital employed) of the company through the relevant theories explained below:

- 1. The Shift ability theory, proposed by H. G. Moulton, argues that internal factors risk can be managed by management obtaining liquidity converting assets within organization to shift open market securities to enhanced performance. When a bank that maintains a large amount of assets is in dire need of ready money, this theory supports the shifting of such assets to a additional liquid bank. In line with this proposal, banks do accept shares and debentures of viable concerns as liquid assets thus encouraging term loaning.
- 2. The Anticipated Income Theory, proposed by H. V. Prochanow in 1944 posits that cash flow of the borrower is adequate to hedge against internal factors risks from default. A bank's loan portfolio is thus measured as a source of liquidity. The loan is refunded in installments out of the expected earnings of the borrower as a replacement for of a lump sum at maturity. This theory fulfills the three main objectives of sound banking operation namely, safety and performances. The loan is refunded in regular installments ensuring liquidity. The ability of the debtor to repay guarantees safety and the regular cash inflow enables the bank to grant more loans thus safeguarding performances.
- 3. The Liability Management Theory established in the 1960s claims that conserving adequate liquidity for withdrawal by depositors improves customer confidence and continued borrowing and hence bank performances. A bank can create extra liabilities against itself by obtaining reserves from different sources. Issuing of certificates of deposits, borrowing from other deposit money banks and central bank, issuing of shares and debentures as well as plugging back of profits are the different sources available to the bank. This theory thus inspires banks to deliberate on both sides of the balance sheet as sources of liquidity.

The chain of these theories implies that effective management on internal factors can enhance bank performances. The management of bank reduces internal factors risk level of bank performance and customer defaults (Hassan and Bashir, 2002). The bank that shortages liquid assets can default in honoring financial obligations that fall outstanding, similarly the customer that did not fund his/her account further suggested by Lamarana, (2012). Thus shift ability of assets, reliable cash flow in customer accounts, and meeting customer withdrawals are essential for effective risk management. Hence these theories have a link with the issue in the study: internal factors on the financial performance: an empirical study on Nigerian deposit money banks, (Wabitu, 2012).

#### 2.3 Review of Empirical studies

This section gives a brief review of the previous studies made on difference factors affect bank performance from both developed and underdeveloped nations. Thus, empirical works done on difference determinants of bank performance which focused on either a panel of countries (Masood et al., 2012; Demirguc-Kunt et al., 1999; Sufian et al., 2009; Ezra ,2013; Goddard et al. 2004; M.Bashir ,2003) or on an individual country (Athanasoglou et al., 2005; Kumbirai and Webb ,2010; Tan and Floros, 2012; Dietrich et al., 2009; Gul et al., 2011; Sufian et al. ,2009 and Ghazouani et al. ,2013. However, most of the studies embark on on bank performance consider external factors to examine performance of banks. So, the determinants of bank performance studies conducted in difference countries and studies made in Nigeria related to bank performance are reviewed as follows.

Many studies have inspected the different determinants of banks' performance in many countries around the world. For instance, Ezra, (2013) studied the performance of commercial banks in Iran for nine banks over the period of 2006-2010 by using panel data regression method. The authors used ROA and ROE as dependent variables which are distinctly examined by explanatory variables including bank size, gearing ratio, non-performing loans, asset supervision, operating effectiveness and capital adequacy ratio.

The above research result reveals that the variables of bank size, management effectiveness and capital adequacy ratio have a positive effect on the performance of commercial banks while the variables of operating effectiveness, gearing ratio and non-performing loans have a negative effect on the banks performance. In case of some African countries, performance of the bank was affected by both external factors. For example, Ezra (2013) studied the determinants of commercial banks profitability in SSA by using unbalanced panel data of 216 commercial banks taken from 42 countries in SSA for the time period of 1999-2006. Through the inflation model, bank profitability was estimated using panel random effects method in static framework.

Li, (2007), Taani, (2013) and Goyal, (2013) made an attempt to identify the key determinants of profitability of public sector banks in India. The analysis is based on step-wise multivariate regression model used on temporal data from 1991-92 to 2003-04. The study has brought out that the explanatory power of some variables is significantly high. Such variables include non-interest income, operating expenses (OE), provision and contingencies (P&C) and Spread. However, some variables namely credit/deposit ratio, NPAs and business per employee (BPE) are found with low explanatory power.

Hence, the variables non-interest income, operating expenses, provision and contingencies and spread have a significant relationship with net profit. Among them two variables P&C and OE arc found having negative relationship. Based on the result

they conclude that control over non-performing assets, operating expenses, provision and contingencies are major areas of concern for the management of public sector bank, (Wooldridge, 1999). Fasil, et al. (2009) and Habtamu (2012) investigates the impact of bank-specific characteristics, macroeconomic conditions and financial market structure on UK owned commercial banks' profits, measured by return on average assets (ROAA) and net interest margins (NIM).

An unbalanced panel data set of 224 observations, covering the period 1995- 2002, provided the basis for the econometric analysis. The result of the study shows that capital strength, represented by the equity to assets ratio is the main determinant of UK banks' profits. The other significant determinants are cost-to-income ratio and bank size, both of which impact negatively on bank profits. Besides, the macroeconomic factors namely GDP growth and inflation has a positive impact on bank performance, examined by Hassan and Bashir, (2002).

The objective of the study made by Anna et al.,(2008) was to examine the contribution of bank-specific as well as macroeconomic and financial structure factors to the variation in profitability across banks and over time in Macao by Utilizing bank level data for the period 1993-2007. They adopt the panel data regression to determine the important factors in achieving high profitability by using internal variables such as capital ratio, asset composition, fund source, asset quality, expense management, fee based services, tax and market share including external variables like GDP growth rate, real interest rate and inflation. They use ROA as a profitability measure. Their results reveal that capital strength of a bank positively affects profitability (Lamarana, 2012).

On the other hand, Ebisa, (2012) examined the asset quality, as measured by the loan loss provisions, affects the performance of banks adversely. In addition, banks with a large retail deposit-taking network do not achieve a level of profitability higher than those with a smaller network. Finally, with regard to macroeconomic variables, only the rate of inflation reveals a significant relationship with banks' performance. Dietrich et al. (2009) examined how bank-specific characteristics, macroeconomic variables and Industry-specific factors affect the profitability of 453 commercial banks in Switzerland over the time period from 1999 to 2006. According to Dietrich et al. (2009), this is the first econometric study that has examined the important issue of the

Bashir, (2012) examined the effect of risk management and corporate governance on bank performance in Nigeria. The study was a survey design that administered four hundred and eighty (480) questionnaires to employees of Wema Bank Plc. and extracted data from the annual reports of the bank for the year 2008 and 2009 using financial ratios. The result obtained from Chi-square statistics revealed that risk management has a positive relationship with bank performance. The study further asserts that how well effective risk management enhances bank.

The other independent variables were growth in bank deposit, growth in bank current asset, capital adequacy, operational effectiveness and liquidity ratio including other external variables such as GDP growth and inflation. The result reveals that some factors explain variation in commercial bank profitability over the study period. Furthermore, Ben,(2003) studies the Determinants of Financial Performance of Commercial Banks in Ghana. The writers used linear multiple regression model and Generalized Least Square on panel data to evaluate the parameters. The findings showed that bank specific factors significantly affect the performance of commercial banks in Ghana, except for liquidity variable.

#### 3.0 METHODOLOGY

In this paper the researcher concentrates on the methods that were adopted throughout the study to accomplish the research objectives. It includes the research design adopted to examine the internal factors on financial performance.

#### 3.1 Research Design

To achieve the objective of this study, Explanatory research design was adopted. Besides, this study used quantitative research approach to examine a stated objective. Quantitative research is the systematic and scientific investigation of quantitative properties and phenomena and their relationships (Belagneh, 2011). Under this study, panel data from the year 2009- 2019 was used. Secondary data was used to examine the internal factors on bank performance. Therefore, increases the dependability of the data. The data for the bank specific factors was obtained from audited financial statements, i.e. from balance sheet and income statement of the respective banks. Thus, the data for the bank specific factors were collected from eight Nigerian deposit money banks which three are international and the rest are national banks

Consequently, this study used panel data of eight Nigerian deposit money banks for ten years to achieve the study objective. The researchers used panel data because by combining time series of cross section observations, panel data give more informative data, more variability, less collinarity among variables, more degrees of freedom and more efficiency (Taani, 2013). By using STATA version12 software

#### 3.2 Model Specification

This study used explanatory variable like capital structure, operating cost, income diversification, bank size, while the dependent variables are ROA and ROCE. In this study, panel data was used. As noted in Brooks (2008), a panel keeps the same individuals or objects and measures some quantity about them overtime. The regression model for the panel data is described in the following equation as adopted from Brooks (2008):

Model 1: To examine the impact of internal factors on return on asset in Nigerian deposit money banks.

ROA= f ( BS, ID, CS, OC ).....Eqn1

$$ROA_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 ID_{it} + \beta_3 CS_{it} + \beta_4 OC_{it} + \varepsilon_{it}$$
 ...... Equ2

$$ROA_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 ID_{it} + \beta_3 CS_{it} + \beta_4 OC_{it} + U_{it}$$
 ...... Eqn3

$$ROA_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 ID_{it} + \beta_3 CS_{it} + \beta_4 OC_{it} + \sum_{i=1}^{15-1} \mu_i DUM + \varepsilon_{it}$$
 ......Eqn4

Where

ROA = Return on Asset (a performance indicator)

BS = Bank Size (a internal factors indicator)

ID = Income Diversification (a internal factors indicator)

CS = Capital Structure (a internal factors indicator)

OC = Operating Cost (a internal factors indicator)

 $U_{it} = \alpha_i + \varepsilon_{it}$  is often called the composite error Random Effect Model (REM)

DUM = Firms' unobservable effect in Fixed Effect Model (FEM) and  $\mu$  is the dummy coefficient

 $\beta_0$ ,  $\beta_{1-3}$  and  $\varepsilon$  are as described earlier. The subscript *i* represents the entity of each quoted company at the time*t*, while subscript represents the year.

Model 2: To examine the impact of internal factors on return on capital employed in Nigeria's deposit money banks

ROCE= f ( BS, ID, CS, OC ).....Eqn5

$$ROCE_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 ID_{it} + \beta_3 CS_{it} + \beta_4 OC_{it} + \varepsilon_{it}$$
 ...... Equ6.

$$ROCE_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 ID_{it} + \beta_3 CS_{it} + \beta_4 OC_{it} + U_{it}$$
 ...... Eqn7

$$ROCE_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 ID_{it} + \beta_3 CS_{it} + \beta_4 OC_{it} + \sum_{i=1}^{15-1} \mu_i DUM + \varepsilon_{it}$$
 ......Eqn8

Where;

ROCE = Return on Capital Employed (a performance indicator)

#### 4.0 RESULTS AND DISCUSSION

#### 4.1 Descriptive statistics

The table 4.1 demonstrates the mean, standard deviation, minimum and maximum values for the dependent and independent variables for sample banks over the year 2009 to 2019. The ROCE has a mean value of 5.62 percent. This implies that, the sample banks on average earned 5.62 percent net interest income of the total loan and advances. Since ROCE reflects the cost of bank's intermediation services and the efficiency of the bank, the higher the ROCE the higher the bank's profit and the more stable the bank is. Accordingly, during the study period the sample deposit money banks in Nigeria had relatively good performance which is measured by ROCE when it's compared with the ROA. On the other hand, the ROA measured by the net income divided by total asset has a mean value of 2.35 percent. This indicates that the sample banks on average earned a NI of 2.35 percent of the total asset. Since ROA indicates the efficiency of the management of a company in generating net income from all the resources of the institutions, the higher ROA shows that the company is more efficient in using its resources. The maximum value of ROA was 4.05 and minimum value of -2.14. That means, the most profitable bank among the sampled banks earned 4.05 cents of net income for a single birr invested in the assets of the firm.

On the other hand, the least profitable bank of the sampled banks incurred - 2.14 cents of loss for each birr investment in the assets of the firm and this loss may be due to lack of efficiency in expense management or high operating costs. Thus, this causes poor performance. This means that, the higher costs of operation negatively affect bank performance. Regarding the independent variables, the bank size which was measured by the natural logarithm of total asset has a mean value of 8.20 with a maximum and minimum value of 11 and 6 percent respectively. In addition, the standard deviation of the bank size was 1.34 percent.

This implies that in the study period the sample deposit money banks have a small variation in their total asset. The other independent variable used in the study was the income diversification which is measured by non-interest income divided by total income has a mean value of 41.60 percent with a standard deviation of 8.86 percent including the maximum and minimum

value of 63.6 and 19.0 respectively. This shows that in the study period the sample deposit money banks have higher variation in diversification of their source of income.

On the other hand, the capital structure measured by debt divided by equity has a mean value of 922.80 percent. This shows that during the study period the sample deposit money banks finance their operation using debt than equity. This is because the capital structures of the deposit money banks were dominated by debt and this debt comes from customer's deposit. The maximum and the minimum value were 2564l.56 and 263.84 percent respectively with a standard deviation of 425.54. This indicates that in the study period the sample deposit money banks have higher variation in using debt and equity to finance their operation. Another important variables used in the study was the operating cost which is measured by the total expenses divided by revenue. The operating costs have a mean value of 56.60 percent. This result shows that on average the sample commercial banks incurred cost of 56.60 percent of the total revenue. Moreover the standard deviation of 15.4 shows that there was higher variation among the sample deposit money banks in their operating costs

Table 4.1 Summary of descriptive statistics.

Depend	Observation	Mean	Standard	Minimum	Maximum
Variables			Deviation		
ROA	46	2.35	1.05	-2.14	4.05
ROCE	46	5.62	1.39	2	9
Independent	Observation	Mean	SD	Min	Max
variables					
B.S	46	8.20	1.34	6	11
ID	46	41.60	8.86	19.0	63.6
CS	46	922.80	425.54	263.84	2564.56
ОС	46	56.60	15.4	28.65	151.6

Source report: Auditor's computation underlining data from 2009 to 2019 annual listed on NSE.

#### 4.2 Correlation analysis

#### Table 4.2 Pearson correlation coefficient matrix for ROA

Moreover, ROA is correlated with other independent variables positively or negatively. The operating cost was the most negatively correlated variable with ROA. This correlation clearly shows that, as the operating cost increases, the performance of the sample deposit money banks is measured by the ROA moves to the opposite direction. In addition to this, the capital structure also negatively correlated with the performance measure (ROA). This shows that, as capital structure increases, ROA moves to the opposite direction. On the other hand, income diversification and bank size were positively correlated with ROA.

Table 4.2; Pearson correlation coefficient matrix for ROA

	ROA	BS	ID	CS	ОС
ROA	1				
BS	0.33	1			
ID	0.35	0.388	1		
CS	-0.36	0.45	0.16	1	
ОС	-0.92	-0.47	-0.33	0.18	1
SOURCE					

Source report: Auditor's computation underlining data from 2009 to 2019 annual listed on NSE

In this section the correlation analysis between the dependent and independent variables were presented. Based on the table 4.3, the BS, was positively correlated with ROCE. These correlations clearly shows that, as the bank size increases, the performance indicator (ROCE) also moves in the same direction. On the other hand, the income diversification, capital structure, and operating cost and were negatively correlated with the performance indicator (ROCE). This clearly shows that, as the income diversification, capital structure and operating cost increases, the performance measure (ROCE) moves in opposite direction.

Table 4.3 Pearson correlation coefficient matrix for ROCE Variables ROCE

	ROCE	BS	ID	CS	ОС
ROCE	1				
BS	0.44	1			
ID	-0.005	0.402	1		
CS	-0.37	0.45	0.17	1	
OC	-0.7	-0.46	-0.33	0.16	1
SOURCE					

Source report: Auditor's computation underlining data from 2009 to 2019 annual listed on NSE.

#### 4.3 Regression analysis

This section presents the overall results of the regression analysis on the determinants of bank performance. In this study ROA was used as a main performance measure. The reason for using ROA as the measurement of bank performance was because The ROA reflects the ability of a bank's management to generate profits from the bank's assets and also indicates how effectively the bank's assets are managed to generate revenues. Moreover, performance is best measured by ROA (Tan et al., 2012).

As an alternative performance measure, this study uses the ROA. The regression analysis result is presented by using separate table for each model. Table 4.4 shows the regression analysis for ROA. In this regression analysis the dependent variable is ROA while the independent variable is size, capital structure, operating cost and income diversification Table 4.4 ROA model fixed effect regression result

As shown from the above table the R-square statistics of the model was 76.64 %. The result indicates that about 76.64 % of the variability in the dependent variable (Return on Asset) is explained by the independent variables used in the model. That is capital structure, bank size, operating cost and income diversification collectively explain 76.64% of the change in ROA. The remaining 23.36% of the variability in the dependent variable is left unexplained by the explanatory variables used in the study. This means that the remaining 23.36% of the changes was explained by other variables which are not included in the model.

Based on the table 4.5, from the internal factors except income diversification the other variables had significant effects on performance of banks. Furthermore, among the external variables only tax rate had significant impact on performance. Since the p-value for size, operating costs and effective tax rate were 0.0000; this revealed that size and operating costs were significant at 1% significance level while capital structure was significant at 10% significance level. When we come to individual coefficient among the explanatory variables bank size had a coefficient of 0.2090555. This revealed that there was a positive relationship between the independent variables like size, GDP and inflation with the dependent variable ROA. Thus the decrease of this variable will lead to a decrease in ROA and also the increase of this variable will lead to an increase in ROA. On the other hand, income diversification, capital structure and operating costs had a negative relationship with bank performance because their respective coefficients were - 0.0030396, -0.0002424 and -0.0490262. This indicates that there was an inverse relationship between the above three independent variables and ROA.

Table 4.4 below presents the second regression result made to examine the internal factors of bank performance of deposit money banks in Nigeria measured by the ROA.

**Table 4.4** ROA model fixed effect regression result

Variables	В	Std. Err.	T	P>\t\
Size	0.2090555	0.0429522	4.87	0.000
Incdiv	-0.0030396	0.0043813	-0.69	0.490
Cost	-0.0002424	0.0001402	-1.73	0.088
Opcost	-0.0490262	0.0025119	-19.52	0.000

R- Squared 0.7664, Prob (f Statistic 0.000 ) No of Observation 46

**Table 4.5** Above presents the second regression result made to examine the determinants of bank performance of deposit money banks in Nigeria measured by the ROCE.

Table 4.5 ROCE model fixed effect regression result

Besides, table 4.5 shows the result of the regression analysis for NIM. In this model the dependent variable was ROCE, while size, capital structure, operating cost and income diversification were the independent variables. The result reveals that about 62.79% of the variability in the dependent variable (ROCE) is explained by the independent variables used in the model. The remaining 37.21% of the variability in the dependent variables is left unexplained by the explanatory variables used in the study. This means that the remaining 37.21% of the changes was explained by other variables which are not included in the model. According to table 4.5 all bank specific factors had a significant impact on performance of deposit money banks in Nigeria. Regarding the internal factors all of them had insignificant effect on the performance of deposit money banks in Nigeria. The p-value for the bank specific factors namely, bank size, income diversification, capital structure and operating cost was 0.000, 0.000, 0.001 and 0.000 respectively. This indicates that all bank specific factors used in this study were statistically significant at 1% significance level.

Furthermore the individual coefficient among the explanatory variables like income diversification, capital structure, and operating cost had a coefficient of --0.0539607,-0.0013703 and -0.0279045 respectively. This shows that there was a negative relationship between those independent variables and the dependent variable ROCE.

#### From the table 4.5

Variables	В	Std. Err.	Т	P>\t\
Size	0.6226195	0.1216984	5.12	0.000
Incdiv	-0.0539607	0.0124137	-4.35	0.000
CS	-0.0013703	0.0003973	-3.45	0.001
Opcost	-0.0279045	0.0071172	-3.92	0.000

R-Squared 62.79%., Prob (f Statistic 0.000) No of Observation 46

#### **5.1 CONCLUSION**

The main objective of this study was to examine the determinants of financial performance of deposit money banks in Nigeria. According to previous studies made on the determinants of financial performance, performance is affected by some internal factors. Internal factors are factors that are mainly influenced by a bank's management and also called bank specific factors. Those factors include bank size, capital structure, operating cost, income diversification, nonperforming loan, liquidity, loan and advances among others. Furthermore,. By using internal factors such as capital structure, bank size, operating cost and income diversification in this study examined the determinants of financial performance of deposit money banks in Nigeria over the period 2009-2019. Thus, panel data for eight banks for ten years was used for the analysis purpose. Data for the bank specific factors were obtained from NSE.

Based on correlation analysis, Bank size was positively correlated with ROCE. These correlations clearly shows that, as the bank size increases, ROCE also moves on the same direction. On the other hand, the income diversification, capital structure and operating cost were negatively correlated with ROCE. This clearly shows that, as the income diversification, capital structure and operating cost increases, ROCE moves in opposite direction. Moreover, the capital structure and the operating cost negatively correlated with ROA. This shows that, as capital structure increases, ROA moves to the opposite direction. On the other hand, income diversification and bank size were positively correlated with ROA. Based on the empirical findings, both capital structure and operating cost negatively and significantly affect performance measured by ROA and ROCE.

While income diversification significantly affects ROCE, it has insignificant impact on ROA. Furthermore, bank size has positive and significant impact on ROA and ROCE. The negative and significant impact of operating cost on both performance measures (ROA and ROCE) shows that decrease in expenses increases the performance of the deposit money banking industry in Nigeria. This indicates that the deposit money banks in Nigeria have much to profit if they are able to exercise efficient cost management practices. The negative coefficient of the operating cost implies that there is a lack of efficiency and effectiveness in expense management in Nigerian deposit money banking industry. Thus, highly significant and negative coefficient of operating cost causes poor performance in Nigerian deposit money banks. This means that, the higher costs of operation negatively affect bank financial performance. Bank size positively and significantly affects the performance of the bank.

The direct relationship between bank size and performance reveals that international deposit money banks perform better than national banks because large banks may benefited from economies of scale and also by increasing size some costs can be reduced simply by increasing the size. The finding of this study shows that in Nigerian banking industry indicated that large bank size perform better than the smaller banks due to the existence of economies of scale. In other ways, the large size banks obtain advantage by their size to generate more return.

The capital structure which is measured by debt over equity, significantly but negatively affects bank performance. The significant negative regression coefficient for total debt implies that an increase in the debt position adversely affects the performance of banks. In addition to this, banks that depend highly on equity financing option perform better than banks that depend highly on debt financing option. The result implies that Nigerian deposit money banks that highly depend on equity financing perform better that banks that highly depend on debt financing because debts are relatively expensive in term of interest rate and cost benefit than equity.

#### **5.2 RECOMENDATION**

Based on the result of the regression analysis, the study forwarded the following recommendations. Established on the finding of the study, Nigerian deposit money banks were mainly affected by the bank specific internal factors. Because most of the bank specific internal factors had significant impact on bank performance. However, Since the management of the bank has control over the bank specific internal factors, it's possible to enhance the performance of the bank by giving more attention on the identified bank specific internal factors such as, bank size, income diversification, capital structure and operating cost.

The finding regarding capital structure of the Nigerian deposit money banks reveals that they highly depend on debt financing than equity financing. Since, Nigerian deposit money banks have developed money and capital markets, banks are able to mobilize high cost funds. Hence, this increases the cost of debt financing. If the country develops both money and capital markets, there is a possibility of the banks to improve more on both capital structure and firms performance positively

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