International Journal of Innovative Research and Advanced Studies (IJIRAS)
Volume 4 Issue 3, March 2017

ISSN: 2394-4404

The Impact Of Bank Specific Variables On The Financial Performance Of Nigerian Deposit Money Banks

Abdullahi, Sadiq Rabiu

Department of Accounting, Bayero University, Kano, Nigeria

Usman, Saidu

Postgraduate Student, Department of Accounting, Bayero University, Kano, Nigeria

Abstract: ***This study is on the impact of bank-specific variables on the financial performance of Nigerian deposit money banks over the time period from 2007 to 2016, a regression is used. Using a panel data set consisting 70 observations of 7 deposit money banks was run through STATA 12. Financial performance is proxied by return on assets (ROA). Findings suggest the existence of significant determinants of capital adequacy (CAR), credit risk (CFR), on financial performance in Nigerian banks. It reveals that bank size (SZE), cost income (CIR) and cash deposit (CDR) have a negative and significant effect on financial performance in Nigerian banks. From the result it is implied that Nigerian deposit money banks should focus on increasing their equity to total asset ratio (CAR) and credit risk management (CFR) due to its impact on financial performance. Banks are also advised to embark on aggressive deposit mobilization with efficient expenses management in order to increase their profits.***

Keywords: Bank-specific variables, Nigerian deposit money banks and financial performance

I. INTRODUCTION

Financial institution plays a major role in economic growth of the world. These are financial intermediaries between numerous depositors and various investors in the banking sector of the economy of whom facilitates business activities. Nigerian banks have undergone remarkable changes over the years which are the number of institutions, ownership structures and also its mode of operations. These changes resulted banks to be strong, large and efficient in their business activities.

Bank Specific Variables (BSV) is a word that is used to mean different thing to different users and it includes capital adequacy, loan to deposit ratio, liquidity risk, cash deposit, non-interest investment, cost income, bank loan, credit risk etc which makes financial performance of businesses easier to be analyzed by different accounting users Obamuyi (2013) Hoffmann (2011); Almazari (2014); and Gul et al. (2011).

Financial performance is the results of activities of an organization particularly investments in one category of assets over a given period of time (Investor words, 2011). It is a criteria which numerically determines how well a company utilizes different classes of its assets specifically bank specific variables (BSV) to earn profit (Moradi, Saeedi, Hajizadeh & Mohammadi, 2013). This reaffirms the conceptual linkage between financial performance and BSV accumulation by banking industry known as deposit money banks. Deposit money banks also known as commercial bank is a financial institution that accepts deposits from the public and creates credit Osamwonyi and Micheal (2014). Lending activities can be performed either directly or indirectly through capital markets. Due to their importance in the financial stability of a country, banks are highly regulated in most countries. Most nations have institutionalized a system known as fractional reserve banking under which banks hold liquid assets equal to only a portion of their current liabilities. In addition to other regulations intended to ensure liquidity, banks are generally subject to minimum capital requirements based on an international set of capital standards, known as the Basel Accords.

Financial performance of banks throughout the world can be analyzed by bank-specific variables as the internal factors influencing managers' decision as well as investors in same sector. These variables (i.e. capital adequacy, cash deposit etc)

as the internal factors are also affected by other external factors like macroeconomic factors such as gross domestic product, interest rate and inflation.

This paper examines the impact of bank-specific variable on the financial performance of Nigerian deposit money banks from 2007 to 2016. The remaining sections of this work covered literature review and methodology, discussion of results and conclusion and recommendations.

II. LITERATURE REVIEW

Most of the recent studies on BSV and financial performance pay special attention to banks listed in developed countries. Beginning with studies that established positive relationship between the variables; Rahaman and Akhter (2015), empirically investigate the relationship between banks-specific factors influencing profitability of Islamic banks in Bangladesh using linear multiple regression analysis. The empirical results show that equity is found to have positive significant impact, while bank-size and deposit have significant negative impact on the return on assets which is the proxy for Islamic banks' profitability. Rahman, Hamid and Khan (2015), used same model and different banks profitability indicator that is net interest margin (NIM); but the ordinary least square results still revealed that BSV components have positive impact on the profitability indicators in Bangladesh banks. This indicates the extent to which this variable when measured using NIM influences other bank profitability indicators of a bank not only ROA and ROE. This implies that BSV has tendency to affect performance of Bangladesh banks positively irrespective of the methods used to source data and value the determinants of banks.

However, in Namibia the research findings show mixed results. For instance, Sheefeni (2015) employed unit root, co-integration and impulse response functions and forecast error to examine the relationship between BSVand profitability of commercial banks in Namibia. The empirical results reveal that capital adequacy, credit risk and liquidity risk as the main determinant of commercial bank's profitability in Namibia. Sheefeni (2015), tests the same commercial banks determinants of profitability with macroeconomic variables. The results reveal that the variables gross domestic product, inflation rate and interest rate do not significantly influence commercial banks' profitability in Namibia.

Researchers have also made attempt to address the research gap left in the Nigerian banking industry following the work of Ani, Ugwunta, Ezeudu and Ugwuanyi (2013) and Obamuyi (2013) that covered some selection of banks in the industry. For instance, Aburime (2013) considered the macroeconomic determinants of bank profitability using a panel data set comprising 1255 observation of 154 banks. The regression result show that the components have strong positive impact on macroeconomic determinants of bank profitability in Nigeria. This result is in consonance with the findings of Osamwonyi and Michael (2014) that used Pooled Ordinary least model to value macroeconomic variables.

Ameur and Mhiri (2013) studied the explanatory factors of bank performance in Tunisia from 1998 to 2011 using the generalized method of moment (GMM). ROA and ROE were used as proxies for financial performance. The empirical results reveal that the bank capitalization, as well as the best managerial efficiency, has a positive and significant effect on the bank performance.

In Romania also, empirical evidence indicate that banks profitability is directly related to indicators in BSV. For, the positive and significant relationship established by Riaz and Mehar (2013) who examined the relationship in 32 commercial banks. The study employed ROA and ROE model, as proxies for financial performance. This is in line with the work of Abiola and Olausi (2014) who used 23 banks by employing fixed effects regression model and used the same banks profitability indicators as ROA and ROE, the result supported the previous findings.

THE CONCEPT OF BANK SPECIFIC VARIABLE

The bank-specific indicators have more ability to influence the profitability of banks. The bank size, operating efficiency, capital, credit risk, portfolio composition and asset management all these variables considered independent which can influence profitability internally. These factors are controllable and the empirical evidence discusses all variables and their relationship with profitability and the proportionate change occurs due to all these variables (Sufian & Habibullah, 2009; Ramlall, 2009; Sayilgan & Yildirim, 2009). The size of the banks is relatively more important variables because the larger banks pay less due to the allocation of their fixed cost and it also helpful for banks to capture a large market share and high profitability (Koasmidou, 2008).

1)Components of Bank Specific Variable

There are many components of bank specific variable used by various researchers' such as Athanasoglou et al. (2006); Flamini et al. (2009); Gul et al. (2011); Obamuyi (2013); Almazari (2014); Jaber (2014) and Saeed (2014). This research work selects the components of bank specific variables together with their measurement which follows the work of Kapaya & Raphael (2016). These are as follows:

CAPITAL ADEQUACY RATIO (CAR)

Capital Adequacy (CAR) is used to measure the strength of bank's capital towards its risk, the measure indicates safety and soundness of a bank. The equity-to-assets ratio is used as a proxy to measure capital adequacy of bank.

Berger (2005) founds that capital adequacy is positively related to United States bank's profitability since well-capitalized bank has better ability to absorb losses and can better handle shareholder's risk, eventually it reduce the expected bankruptcy cost. In addition, a well-capitalized bank attracts a larger share of deposits and investment did contribute in increasing a bank's income (Garcia-Herrero, Gavila & Santabarbara, 2009). Consistent with Acaravci & Calim (2013), Bennaceur & Goaied (2008) and Sufian & Chong (2008), they agree that a highly capitalized bank has a better deal in reducing its cost of funding where it possibly can charge more on loans or pay less on deposits since they have lower bankruptcy risk. Also, Onuonga (2014) pointed out that well-capitalized banks are able to improve profitability

because they are able to diversify investments, funding at cheaper cost and invest in better quality of assets, and even stay strong during financial crisis.

CREDIT RISK (CFR)

Credit risk refers to the risk that a bank has to bear when borrowers are unable to repay the debt in a required period. Credit risk can also be defined as the likelihood that credit customers are unable or refuse to repay the honouring debt in full or at maturity date which ultimately causes bank to lose wholly or partially on their outstanding loans. There are several proxies for credit risk that had been used in previous studies. For example, Ana, Blanka & Roberto (2011) use loan loss provision / total loans to measure bank's credit risk in Croatia, the ratio indicates how much the total portfolio have been provided for but not charged off.

COST INCOME RATIO (CIR)

Cost Income Ratio, this is a proxy for operational efficiency. It captures the idea of bank improvements in communication, information and financial technologies. An advance in technologies has a positive impact on banking operations efficiency. Thus they expect a negative relationship between CIR and ROA (Almazari, 2014; Jaber & Al-Khawaldeh 2014).

CASH DEPOSIT RATIO (CDR)

Deposit ratio, this is the ratio of total deposit to total assets; it captures liquidity and liability indications in the bank. Deposits are the main sources of bank funding (Gul et al., 2011), and hence has an important impact on profitability of the bank. The more deposits a bank receives the more its ability to offer loans is enhanced, thus there would be a positive relationship between deposits and profitability (Saeed, 2014).

THE CONCEPT OF FINANCIAL PERFORMANCE

Financial performance can be evaluated using different measures. However, Bacidore, Boquist, Milbourn, and Thakor (1997) argued that an appropriate performance measure is one that captures the amount of capital invested, the required rate of return on capital and net operating income after taxes. Some of the financial performance measures provided by investopedia, (2013) and financial dictionary (2012) include revenue from operations, operating income or cash flow from operations, return on assets (ROA), return on investment (ROI), value added (VA). However, previous studies used other financial performance measures such as return on asset (ROA), return on equity (ROE) and net interest margin (NIM) (Wang, 2011; Naidenova and Parshakov ,2013; Shakina and Barajas, 2012).

II. RESEARCH METHODOLOGY

This study used a panel data time-series which comprised of annual report and accounts of the selected banks, CBN web-site, Nigerian Stock Exchange (NSE) fact-book and web page of the Nigerian Stock Exchange. For the purpose of presentation and discussion of results, the data generated in the research was analyzed using regression. The population of this study comprises of all the fifteen (15) listed Deposit Money Banks in Nigeria, as at 31st December 2015. The criteria adopted for sample size of the study is that, no change in structure or name and not under the control of the government. The reason for using this method of selecting the sample is because of the need to ensure that changes in financial performance being measured are not brought about as a result of changes in the structure or composition of the banks.

The seven sampled banks are First bank Plc, United Bank for Africa Plc, Union Bank Plc, Zenith Bank Plc, Guaranty Trust Bank Plc, Diamond Bank Plc and Fidelity Bank, they are considered adequate and very good representative of the population, since almost all the fifteen banks operate in a very similar manner.

THE STUDY VARIABLES AND THEIR MEASUREMENT

The study variables covered in this study are in two sets, i.e. dependent and the independent variables. The dependent variable is the financial performance of the listed Nigerian Deposit Money Banks' measured using only one indicator as employed in previous studies. This is:

ROA=return on assets (Net income ÷ total assets). This was used in the work of Almazari (2014); Gul et al. (2011); Saeed (2014); Pan & Pan (2014); Hoffmann (2011); Athanasoglou et al. (2005).

The independent variables for this study are values of BSV measured using different models as developed by different scholars and used in previous studies. They are:

Capital Adequacy ratio (CAR) = Total Equity/ Total Assets. This is used in the works of researchers like Hoffmann (2011); Almazari (2014); Gul et al. (2011); Obamuyi (2013).

Cash Deposit ratio (CDR) = Total Deposits/ Total Assets. This was in Gul et al. (2011) and Saeed (2014).

Cost income ratio (CIR) = Total operating expenses/ Total operating income. This is used in the works of researchers like Almazari (2014); Jaber and Al-Khawaldeh (2014) and Obamuyi (2013).

Credit risk: Loan to deposit ratio (CFR) = Net Credit Facilities/ Total Deposits. This is used in the works of researchers like Flamini et al. (2009); Almazari (2014); Gul et al. (2011), Jaber and Al-Khawaldeh (2014).

Bank Size (SZE) = Natural logarithm of Total Assets. This is used in the works of researchers like Almazari (2014); Gul et al. (2011); Jaber and Al-Khawaldeh (2014), Obamuyi (2013).

MODEL SPECIFICATION

This study employs the Osamwonyi (2014) approach in order to analyze the financial performance of the Nigerian

deposit money banks' (DMBs) which is adjusted in the following form:

$ROA=\alpha 0+\alpha_1 CAR+\alpha_2 CDR+\alpha_3 CIR+\alpha_4 CFR+\alpha_5 SZE+e$

Where:

ROA= represents the return on total assets of the banks
CAR= represents the capital adequacy ratio of the banks
CDR= represents the cash deposit ratio of the banks
CIR= represents the cost income ratio of the banks
CFR= represents the credit risk of the banks
SZE= represents the banks size
e= Error term
α0= Constant
α_1, α_2, α_3, α_4 and α_5: Coefficients

III. RESULTS AND DISCUSSION

The causal effect (OLS) between the dependent (ROA) and the independent variables (CAR, CDR, CIR, CRF and SZE) are investigated by carrying out a correlation test on the variables. Correlation Matrix

Generally in model specification, correlated variables (those with values exceeding 0.60) cannot be placed in the same role that is, multicollinearity problem. It is therefore important for getting a rough idea of the relationships between independent variables and preliminary look for multicollinearity. Table 1 below shows the correlation matrix for the variables in the regression model.

	ROA	CAR	CDR	CIR	CFR	SZE
ROA	1.000000	-0.035438	0.438157	-0.418720	-0.167739	-0.283002
CAR	-0.035438	1.000000	0.009376	-0.346972	-0.286213	0.032450
CDR	0.438157	0.009376	1.000000	-0.576437	-0.348942	-0.463691
CIR	-0.418720	-0.346972	-0.576437	1.000000	0.492740	0.321545
CFR	-0.167739	-0.286213	-0.348942	0.492740	1.000000	0.417407
SZE	-0.283002	0.032450	-0.463691	0.321545	0.417407	1.000000

Source: Generated by the Researcher using STATA 12

Table 1: Correlation Matrix

Table 1 above shows that correlation between the independent variables is not strong that is, multicollinearity problems are not severe or non-existent.

PANEL REGRESSION RESULTS

The regression results were based on the relationship between financial performance and the independent variables which are presented in Table 2 below.

Dependent Variable: ROA
Method: Panel Least Squares
Sample: 2007-2016
Cross-section included: 7
Total panel observations: 70

Variable	Coefficient	Std. Error	t-Statistics	Prob.
C	0.137601	0.135180	0.9530108	0.3528
	-0.00489			
CAR	3	0.007810	-0.629309	0.5022
CDR	0.201162	0.074316	2.614208	0.0112
	-0.12923			
CIR	0	0.043760	-2.615801	0.0146
CFR	0.379237	0.312410	1.321086	0.1810
	-0.02449			
SZE	8	0.041192	-0.456731	0.6023
	-0.13107			
R-squared	0.367129		Mean dependent var	0.010580
Adjusted R-squared	0.310440		S. D. dependent var	0.047302
				-3.11704
S. E. of regression	0.043729		Akaike info criterion	6
				-3.15208
Sum squared resid	0.071079		Schwarz criterion	2
Log likelihood	103.3810		F-statistics	5.247102
Durbin-Watson stat	2.463140		Prob(F-statistics)	0.000146

Source: Generated by the Researcher using STATA 12

Table 2: Panel Regression Results

The R^2 above measure how much variability in the outcome is accounted for by the predictors.

For this study, the value is 0.367129 meaning that CAR, CDR, CIR, CFR and SZE account for 36.63% of the variation in ROA. Therefore, it shows that other factors apart from those mentioned above influences financial performance in the Nigerian DMBs.

The Adjusted R-squared shows how well the model generalizes; the hypothesis shows that all slope coefficients are equal to zero while the Prob (F-statistics) value is less than 0.05.

The relationship between CAR and ROA is negative in contrary to the results of Osamwonyi (2014). However, the coefficient is not statistically significant at 5% level meaning that in DMBs, size is not an important determinant of ROA at least for the period under study.

The coefficient of CAR is positive and highly significant at 5% level which implies that 1% increase in CAR will lead to 0.20% increase in ROA. This interpretation is true only if the effects of CIR, CFR and CDR are held constant.

There exist a strong positive causal relationship between CAR and bank performance (ROA) confirms recent studies by Saeed (2014) and Shuremu (2016). This result implies that Nigerian DMBs should focus more on increasing their CAR.

The coefficient of CFR is negative and significant at 5% level which means that credit risk important in determining ROA in the Nigerian DMBs. This is in line with the work of Obamuyi (2013) and Abila and Olausi (2014).

The result of CIR showed insignificant direct relationship between operating expense and financial performance. Also, the coefficient of CDR is negative but insignificant which means that the proportion of customers' deposit is not important in determining ROA in the Nigerian DMBs.

IV. CONCLUSION AND RECOMMENDATIONS

This study has investigated the impact of bank-specific variable on the financial performance of Nigerian deposit money banks. To achieve the study's objective panel data regression is applied to data from Central Bank of Nigeria publications, the seven strongest Nigerian deposit money banks' financial reports as well as Nigerian Stock Exchange fact-book from 2007-2016. The regression analysis is used to

measure the impact of the internal determinants on banks financial performance.

The research hypothesis was tested and the results of this study reveals that cost income (CIR),cash deposit (CDR) and bank size (SZE) are insignificant and negatively correlated to return on assets (ROA) in the banking sector of Nigeria, meaning that cash deposit, cost income and bank size do not lead to efficiency in Nigerian banks. While, capital adequacy (CAR) indicates a significantly positive relationship with return on assets. From the result it is recommended that Nigerian deposit money banks should focus on increasing their equity to total asset ratio (CAR) and credit risk management (CFR) due to its impact on financial performance. Banks are also advised to embark on aggressive deposit mobilization with efficient expenses management in order to increase their profits.

REFERENCES

[1] Abiola, I. & Olausi, A. S. (2014). The impact of credit risk management on the commercial banks performance in Nigeria. *International Journal of Management and Sustainability, 3* (5), 295-306.

[2] Aburime, U. T. (2013). Determinants of bank profitability: macroeconomic evidence from Nigeria. *International Journal of Business and Social Science, 2* (5), 165-179.

[3] Acaravci, S. K. & Calim, A.E. (2013). Turkish banking sector's profitability factors. *International Journal of Economics and Financial Issues,3* (1), 27-41.

[4] Almazari, A. A. (2014). Impact of internal factors on bank profitability: comparative study between Saudi Arabia and Jordan. *Journal of Applied Finance & Banking, 4* (1), 1792-6599.

[5] Ameur, I. G. & Mhiri, S. M. (2013). Explanatory factors of bank performance in Tunisia: A panel model approach. *Global Journal of Management and Business Research Finance, 13* (5), 1-12.

[6] Ana, K., Blanka, S. & Roberto, E. (2011). Determinants of bank profitability in Croatia. *Croatian Operational Research Review, 11* (2), 168-182.

[7] Ani, W. U., Ugwunta, D. O., Ezeudu, I. J. & Ugwuanyi, G. O. (2013). An empirical assessment of the determinants of bank profitability in Nigeria: Bank characteristics panel evidence. *Journal of Accounting and Taxation, 4* (3), 38-43.

[8] Athanasoglou, P. P., Brissimis, S. N., & Delis, M. D. (2005). Bank - specific, industry - specific and macroeconomic determinants of bank profitability. *Working Paper*, 25.

[9] Athanasoglou, P., Delis, M. & Staikouras, C. (2006). Determinants of bank profitability in the south eastern European region. *Social Science Electronic Publishing,* http://mpra.ub.uni-muenchen.de/10274

[10] Bacidore, J.M., Boquist, J.A., Milbourn, T.T., & Thakor, A. V. (1997). The search for the best financial performance measure. *Financial Analysts Journal*, May/June.

[11] Bennaceur, S. & Goaied, M. (2008). The determinants of commercial bank interest margin and profitability: Evidence from Tunisia. *Frontiers in Finance and Economics, 5* (1), 106-130.

[12] Berger, A, N. (2005). The relationship between capital and earnings in banking. *Journal of Money, Credit and Banking, 27* (2), 432-456.

[13] Flamini, V., McDonald, C. & Liliana, S. L. (2009). The determinants of commercial bank profitability in Sub-Saharan Africa. *IMF Working Paper: African Department,* WP/09/15, 1-30.

[14] Garcia-Herrero, A., Gavila, S. & Santabarbara, D. (2009). What explains the low profitability of Chinese banks? *Journal of Banking and Finance, 33* (1), 2080-2092.

[15] Gul, S., Irshad, F. & Zaman, K. (2011). Factors affecting bank profitability in Pakistan. *The Romanian Economic Journal, 39*, 61-87.

[16] Hoffmann, P. S. (2011). Determinants of the profitability of the US banking industry. *International Journal of Business and Social Science, 2* (22), 255-269.

[17] Jaber, J. J. & Al-Khawaldeh, A. A. (2014). The impact of internal and external factors on commercial banks profitability in Jordan. *International Journal of Business and Mangement, 9* (4), 22-30.

[18] Kapaya, S. M. & Raphael, G. (2016). Bank-specific, industry-specific and macroeconomic determinants of banks profitability: Empirical evidence from Tanzania. *International Journal of Finance and Banking, 3* (2), 100-119.

[19] Koasmidou, K. (2008). The determinants of banks' profits in Greece during the period of EU financial integration. *Managerial Finance, 34* (3), 146-159.

[20] Moradi, M., Saeedi, M., Hajizadeh, H., & Mohammadi, M. (2013).The influence of capital on the improvement of companies' financial performance. *International Journal of Economics, Business and Finance, 5*, 120- 139.

[21] Naidenova,I.N. & Parshakov, P.A. (2013).Capital adequacy investments: Evidence from Panel Var Analysis. Retrieved from http://www.ssrn.com/abstract=2204952

[22] Obamuyi, T. M. (2013). Determinants of bank's profitability in a developing economy: Evidence from Nigeria. *Organizations and Markets in Emerging Economies, 4* (2), 97-109.

[23] Onuonga, S. M. (2014). The analysis of profitability of Kenya's top six commercial banks: International factor analysis. *American International Journal of Social Science, 3* (5), 94-103.

[24] Osamwonyi, I. O. & Micheal, C. I. (2014). The impact of macroeconomic variables on the profitability of listed commercial banks in Nigeria. *European Journal of Accounting, Auditing and Finance Research, 2* (10), 85-95.

[25] Pan, Q. H. & Pan, M. L. (2014). The impact of macro-factors on the profitability of China's commercial banks in the decade after WTO accession. *Open Journal of Social Sciences, 2*, 64-69. http://dx.doi.org/10.4236/jss.2014.29011

[26] Rahman, M. M., Hamid, K. and Khan, A. (2015). Determinants of bank profitability: empirical evidence

from Bangladesh. *International Journal of Business and Management, 10* (8), 135-150.

[27] Rahaman, MD. M. & Akhter, S. (2015). Bank-specific factors influencing profitability of Islamic banks in Bangladesh. *Journal of Business and Technology (Dhaka), 10* (1), 22-34.

[28] Ramlall, I. (2009). Bank-specific, industry-specific and macroeconomic determinants of profibility in Taiwanese banking system: Under panel data estimation. *International Research Journal of Finance and economics, 34*, 160-167.

[29] Riaz, S. & Mehar, A. (2013). The impact of bank-specific and macroeconomic indicators on the profitability of commercial banks. *The Romanian Economic Journal, 16* (47), 91-110.

[30] Sayilgan, G. & Yildirim, O. (2009). Determinants of profitability in Turkish banking sector. *International Research Journal of Finance and Economics 28*, 207-214.

[31] Saeed, M. S. (2014). Bank-related, industry-related and macroeconomic factors affecting bank profitability: a case of the United Kingdom. *Research Journal of Finance and Accounting, 5* (2), 42-50.

[32] Shuremu, G. A. (2016). Determinant of banks' profitability: evidence from banking industry in Ethiopia. *International Journal of Economics, Commerce and Management, 4* (2), 442-463.

[33] Sufian, F. & Chong, R. R. (2008). Determinants of bank profitability in a developing economy: Empirical evidence from the Philippines. *Asian Academy of Management Journal of Accounting and Finance, 4* (2), 91-112.

[34] Sufian, F. & Habibullah, M. S. (2009). Bank specific and macroeconomic determinants of bank profitability: empirical evidence from the China banking sector. Frontier Economics. China, *4* (2), 274-291.