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BANK ATTRIBUTES AND FINANCIAL PERFORMANCE OF LISTED DEPOSIT MONEY BANKS IN NIGERIA

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Abstract

This paper investigates the relationship between bank attributes and financial performance of listed deposit money banks in Nigeria for the period 2010 to 2015. Data was obtained from a sample of fourteen banks out of the population of fifteen banks through their annual report and accounts. Bank attributes as an independent variable was proxied by leverage, deposit growth rate, cash liquidity, capital adequacy and firm size, while return on equity was used to represent financial performance. The study adopted generalized least square multiple regression technique in analyzing data. The findings revealed that leverage, deposit growth rate and cash liquidity have insignificant impact on financial performance, while capital adequacy and firm size have positive significant impact on financial performance of Nigerian listed deposit money banks. It is recommended that Nigerian listed deposit money banks should increase their capital adequacy ratio and the size of their operations. Also, the management of the banks should reduce the level of leverage in their capital structure and focused more attention on equity financing, since leverage influence their financial performance negatively.

Keywords: *Leverage, Deposit Growth Rate, Cash Liquidity, Capital Adequacy and Firm Size*

1.1 Introduction

Financial institutions are associated with some attributes which affect their financial performance either negatively or positively. Bank attributes are those characteristics such as leverage, deposit growth rate, cash liquidity, capital adequacy and bank size among others which affect the financial performance of a bank. Banks use deposit and debt to finance their operation with the hope of improving their financial performance; as such they increase their leverage because it can invest in banking operation without increasing its equity. Leverage is the amount of debt used to finance other capital expenditure that can improve bank financial performance (Li & Yang 2006). Total debt will include short and long-term borrowings from financial institutions, debentures/bonds differed payment arrangement for buying capital equipment, public deposit and any other interest bearing loan.

Deposit growth rate is also expected to have an influence on bank financial performance by mobilizing surplus funds from savers who have no immediate needs of such funds and channel such funds in form of credit to investor who have ideas on how to create wealth to the banks, the level of funds mobilized by the banks is quite low due to a number of reasons ranging from low saving rates to poor banking habit or culture of the people to efficiently mobilized deposit in an economy. In addition the amount of bank has at hand or can generate quickly reveals how healthy the bank is financially. Cash liquidity refers to the banks' ability to convert its short term assets into cash in order to meet its day to day operation for better financial performance (Docglas. E, 2014) Liquidity of bank is a measure of its ability to readily find the cash it may need to meet demand upon it, liquidity can come from direct cash holdings in currency or on account at the federal reserve or central bank.

Capital adequacy is another attributes that affect the financial performance of bank and are expected to absorb the losses from normal earning (Rajan & Zingales 1998; Cetorelli & Gambera 2000; Beck & Levine 2004) The knowledge of how capital adequacy influences the financial sectors profitability is essential not only for banks managers, but for numerous stakeholders such as the central bank, bankers associations, government and other financial authorities.

Capital adequacy is a confidence booster, it provides the customer, the public and the regulatory authority with confidence in the continued financial viability of the bank. Bank size is also expected to have an influence on bank financial performance (Dogan, 2014). Large banks may exercise economy of scale, have good knowledge of market and are capable of employing competent managers for better financial performance; proper utilization of bank liquidity can improve their financial performance. (Driffield, Mahabare & Pal, 2005). However, large banks can be less efficient than small banks because of loss of control by managers over strategic and operational activities. The study on deposit money banks in Nigeria is important because of the role it plays in channeling funds from surplus units to deficit units of the economy. This helps in enhancing growth and development in Nigeria.

Studies have been conducted on bank attributes and financial performance in both developed and developing nations such as the work of Moses (2014) and Ahmad (2015) revealed mixed results. In Nigeria there are several studies on bank characteristics and financial performance of listed deposit money banks. Where they exist, capital adequacy and deposit growth rate are ignored as proxies for bank characteristics which can influence the financial performance of deposit money banks in Nigeria. Therefore, the study seeks to fill all these literature gaps by investigating the effect of banks' attributes on financial performance of listed deposit money banks in Nigeria. It generally seeks to examine the effect of bank attributes on financial performance of listed deposit money banks in Nigeria. It was also hypothesized that bank attributes have no significant influence on financial performance of listed deposit money banks in Nigeria.

2.1 Empirical Review and Theoretical Framework

Ahmadu (2015) investigated the relationship between leverage and financial performance of deposit money banks in Nigeria. Using a convenience sampling technique with a sample size of 11 banks, the study covered 2005-2013 periods using multiple regressions as statistical tools of analysis and found a significant negative relationship between leverage and financial performance. Yahaya and Lamidi (2015) investigated the relationship between leverage and financial performance of deposit money banks in Nigeria, they revealed that time series data were collected and analyzed by way of gray cooperative index, the result showed that there is a positive significant relationship between financial leverage and financial performance of Jaiz bank for both the 2013-2014 period. (Gweyi and Karanja 2014) Examines the correlation between financial leverage and financial performance. Reported that 40 banks were listed in the Kenyan exchange bureau,

two basic approaches descriptive and analytical design were adopted, a strong correlation and significant relationship exist between financial leverage and financial performance in Kenya deposit banks (Saccos), the study covered the period 2010-2012 the strong correlation is in line to the positive relationship hypothesized.

Samuel and Peter (2014) studied the effect of deposit growth and financial performance of listed deposit money banks in Nigeria, their finding revealed that saving deposit growth rate have negative and significant effect on financial performance of listed deposit money bank in Nigeria, using multivariate regression analysis under econometric, comprising all the listed Bank in Nigeria, the study covered the period between 1999 and 2012. The study of Olaye and Olarewaju (2015) revealed that there exist positive relations between deposit growth rate and financial performance of listed deposit money banks in Nigeria, Using 15 banks in Nigeria a cross-sectional panel regression was used for the study, the study covered 2004-2012 period using individual financial statement. Uwalomwa, Uwnigbe and Oyew (2015) observed that a negative insignificant relationship exist between deposit growth rate and financial performance. The audited annual reports of 10 listed banks were studied using purposive sampling method. The study adopted the use of both descriptive statistical and econometrics analysis, covering the period of 2007-2011 were analyzed. Yahaya and Lamidi (2015) studied the influence of deposit growth and financial performance of deposit money banks using gray comparative index and revealed that there is a positive relationship and significant relationship between growth rate and financial performance of banks, the study covered 2013-2014 period using Jaiz bank as sample of the study.

Yahaya and Lamidi (2015) demonstrated in their own investigation that the relationship between cash liquidity and financial performance is negative and insignificant for both 2013-2014 periods using gray comparative index with jaiz bank as a sample size in Nigeria. Ajibike and Aremu (2015) studied the relationship between cash liquidity and financial performance of listed deposit money banks in Nigeria, the result revealed that cash liquidity is positively and significantly influencing banks financial performance, using 14 banks as sample size the study covered 2004-2012 period, multiple regression analyses was used. Jonathan, Victor and Ifeoma (2013) investigated the determinant of cash liquidity and financial performance of listed deposit money banks in Nigeria, The result indicate that bank liquidity is negative and insignificantly related with financial performance of listed deposit money bank in Nigeria, the study made use of data

obtains from the audited report of the banks for a period of (2000-2012) 5 banks were used and a panel data regression model was used to capture cross-section and time series data.

Kenny, Lanre and Jumoke (2013) investigated the determinant of capital adequacy and financial performance of listed deposit money banks in Nigeria using 10 banks as sample size of the study for the period of 2006-2010, multiple regression as statistical tool for analysis and reported negative significant relationship between capital adequacy and financial performance. Ikpefan (2013) investigated the influence of capital adequacy and financial performance of listed deposit money banks, the study revealed that capital adequacy of banks has negative and insignificant relationship on financial performance, using cross-sectional and time series ordinary least square regression, using 8 banks as a sample size, the study covered 1986-2006 period. Asikhia and Sokefun (2013) investigated the impact of capital adequacy and financial performance of listed deposit money banks in Nigeria, result shows that there is a positive significant relationship between capital adequacy and financial performance of listed deposit money banks in Nigeria, secondary data analyze while the primary data analyze revealed that an insignificant relationship exists between capital adequacy and financial performance of listed deposit money bank in Nigeria, uses five point likert scale, the study covered the 2006-2010 period.

Velnampy and Nimalathan (2010) conducted a comparative study on the effect of firm size on financial performance of bank of Ceylon and commercial bank of Ceylon limited in Sri-Lanka with a sample size of two banks for the period of 1997-2006 and found a positive and significant relationship between Bank size and financial performance. Oztugulbas, Koyuncugil & Yilmaz (2006) examine the relationship between firm size and financial performance result revealed that large firms performed positive and insignificant relationship between bank size and financial performance of deposit money banks, multiple regressions as statistical tool, using 6 banks as sample size, the study covered 2000-2005 period.

2.2 Theoretical Framework

Signaling theory is concerned with understanding why certain signals are reliable and other are not in terms of decision making. The theory looks at the quality and reliability of accounting information send by a company to its users of accounting information for investment decision making by the potential investors. Spence (1973) posited that a well performing firm distinguishes itself from the non-performing one by sending a credible signal about its performance to capital

markets as well as potential investors. Signals sent by firm are the results of its operating activities which will inform investors about the company's future prospects. The theory assumed that managers and shareholders of a company differ in terms of getting access to some vital information about firm operation. Some information can be accessed by the managers while the shareholders do not have access to such information.

Signaling theory was adopted in this study to underpin firm attributes represented by leverage, deposit growth rate, cash liquidity, capital adequacy and bank size, because a sound liquidity position of a company is showing its ability to make up with its short term financial need without stoppages in production. However, effective cost management would enable a company to minimize its operating costs of production thereby leading to an improvement in firm's financial performance which is showing a good signal to both current and potential investors that the company can continue to operate in line with the going concern concept of accounting as well as satisfying the interest of its stakeholders.

3.1 Methodology

Correlation research design was adopted because the study attempt to measure the relationship between banks attributes and financial performance of listed deposit money banks in Nigeria. The population of the study consists of all the fourteen (14) listed deposit money banks on the Nigerian Stock Exchange as at 31 December, 2015. In view of availability of data for all the banks, the study used census approach to study them all. The study used secondary data which was obtained from the annual reports and accounts of the listed deposit money banks in Nigeria for the period of the study. Generalized least square multiple regressions were adopted for the panel data analysis in order to establish the relation among the variables of the study. Multiple regression were considered appropriate in view of the fact that it helps in not only establishing relationship between dependent and independent variables, but provided causes and effect of their relationship.

3.2 Model Specification and Variables Definition and Measurement

The model used to empirically test the hypothesis formulated is as follows:

$$ROE_{it} = \beta_{0it} + \beta_1 LVG_{it} + \beta_2 DPG_{it} + \beta_3 CLQ_{it} + \beta_4 CPA_{it} + \beta_5 BSZ_{it} + \varepsilon_{it}$$

The dependent variable and independent variables used in the model are explained in table 3.2 as follows:

Table 3.2: Variables Definition and Measurement

Variables Acronym	Variables Name	Variables Measurement and Sources
ROE	Return on Equity	Measured as banks' profit after tax divided by the banks' total equity (Carter, <i>et al</i> , 2007).
LVG	Leverage	Measured as ratio of banks total debt to equity (magpayo, 2011)
DPG	Deposit Growth Rate	Measured as the total deposit of current year minus total deposit of previous year divide by the previous year total deposit (Olaye and Olarewaju, 2015)
CLQ	Cash liquidity	Measured as Loans and advances divided by the total assets (Jonathan, Victor and Ifeoma 2013)
CPA	Capital Adequacy	Measured by shareholders fund divided by the total assets (Ikpefan, 2013)
BSZ	Bank size	Measured as natural logarithms of banks total assets (shih, 2012)
β	Constant	
ε	Error term	
it	Firm i at time t	

Source: compiled by the authors from various literature, 2016

4.1 Results and Discussion

This section presents the descriptive statistics, correlation matrix and summary of multiple regression results.

Table 4.1 Descriptive Statistics

Variables	Obs.	Min.	Max.	Mean	Std. Dev.
ROE	82	-19.95	30.90	7.32	20.62
LVG	82	10.37	99.48	84.73	9.58
DPG	82	-32.52	126.26	15.96	23.73
CLQ	82	0.02	0.85	0.17	0.11
CPA	82	10.37	28.28	14.01	5.48
FSZ	82	5.30	6.64	6.01	0.33

Source: Stata Output, 2016

From Table 4.1, the minimum and maximum values of return on equity are -19.95 and 30.90 respectively. Higher return on equity signifies higher financial performance, while lower return on equity indicates lower financial performance. The average value of return on equity is 7.32 while the standard deviation is 20.62. The minimum and maximum values of leverage of listed deposit money banks in Nigeria are 10.37 and 99.48. The average value of leverage is approximately 84.73 with a standard deviation of 9.58. The banks' deposit growth rate shows minimum and maximum values of -32.52 and 126.26 respectively. Also, the average deposit growth rate of listed deposit money banks in Nigeria revealed a value of 15.96 and standard deviation of 23.73. The cash liquidity shows a minimum and maximum of 0.02 and 0.85 respectively. The mean of cash liquidity stood at 0.17 while the standard deviation was 0.11. Capital adequacy shows a minimum and maximum value of 10.37 and 28.28 respectively. The average value of bank's capital adequacy is 14.01 and the standard deviation is 5.48.

Finally, the banks' size revealed minimum and maximum values of 5.30 and 6.64 respectively. Also, the mean value of banks' size shows a value of 6.01 and the standard deviation is 0.33.

Table 4.2 Correlation Matrix

Variables	ROE	LVG	DPG	CLQ	CPA	FSZ
ROE	1					
LVG	0.3650* (0.007)	1				
DPG	0.1546 (0.1654)	0.2952* (0.0071)	1			
CLQ	0.2627* (0.0171)	0.2178* (0.0494)	-0.0781 (0.4853)	1		
CPA	0.4429* (0.0000)	-9.0007 (0.9948)	-0.0607 (0.5883)	-0.0780 (0.4863)	1	
BSZ	0.3122* (0.0043)	-0.0332 (0.7672)	-0.0924 (0.4091)	0.4864* (0.0000)	0.0417 (0.7096)	1

Source: Stata Output, 2016

Table 4.2 reveals that leverage, deposit growth rate, cash liquidity, capital adequacy and firm size of the banks are positively correlated with financial performance. The coefficient values of 0.3650, 0.2627, 0.4429 and 0.3122 of the variables with p-values of 0.0007, 0.0171, 0.0000 and 0.0043 which are significant at 1%, 5%, 1% and 1% level of significant respectively. In contrast, deposit growth rate is positively and insignificantly correlated with financial performance with the coefficient of 0.1546 and p-values of 0.1654 respectively.

The relationship of the independent variables among themselves shows that deposit growth rate and leverage, cash liquidity and leverage, firm size and cash liquidity, and firm size and capital adequacy are positively correlated among themselves. On the other hand, the relationship between capital adequacy and leverage, firm size and leverage, cash liquidity and deposit growth rate, capital adequacy and deposit growth rate, firm size and deposit growth rate, and capital adequacy and cash liquidity are negatively related among themselves.

4.2 Regression Results and Discussion of Findings

In view of the nature of the data, robustness test like multicollinearity and hetroskedasticity tests were conducted in order to see their existence or otherwise. The multicollinearity test revealed a variance inflation factor and tolerance values of less than 10 and 1 respectively, meaning that the data used in the study does not have any multicollinearity problems. The hetroskedasticity test revealed a Chi² value of 14.19 with a p-value of 0.0002 which is significant at 1% level of significance. This means there is hetroskedasticity problem associated with the data of the study. Also, fixed and random effect test was conducted and the hausman specification test was used decide between fixed and random effect models. The result from the hausman specification test revealed a Chi² value of

0.00 with p-value of 0.0000 which suggested the use of fixed effect model. Therefore, the study adopted generalized least square regression model.

Table 4.3 presents the summary of the generalized least square regression results obtained from the analysis of data.

Table 4.3 Regression Results

Variables	Coefficient	T-Value	P-Value	Tolerance	VIF
Constant	-327.0261	-3.57	0.001		
LVG	-0.0210	-0.08	0.934	0.8324	1.20
DPG	0.1053	1.33	0.188	0.8863	1.13
CLQ	23.7959	1.37	0.175	0.6861	1.46
CPA	2.7359	6.17	0.000	0.9789	1.02
FSZ	48.4971	3.09	0.003	0.7362	1.36
R2	0.4733				
Wald Chi²	11.32				
Prob. Chi²			0.0000		
Hetest	14.19		0.0002		

Source: Stata Output

Table 4.3 shows the functional relationship between dependent and independent variables as follows:

$$\text{ROE} = -327.0261 - 0.0210\text{LVG} + 0.1053\text{DPG} + 23.7959\text{CLQ} + 2.7359\text{CPA} + 48.4971\text{BSZ}$$

The table 4.3 shows that leverage has insignificant negative impact on financial performance of listed deposit money banks in Nigeria. This can be observed from the computed value of beta coefficient of -0.0210 with p-value of 0.934 which is statistically insignificant at any level of significance. This finding is in line with that of Ahmadu (2015) but inconsistent with Yahaya and Lamidi (2015) who found significant positive relationship between leverage and financial performance.

Table 4.3 reveals that deposit growth rate is positively and insignificantly correlated with financial performance of listed deposit money banks in Nigeria. The beta coefficient of the variable is 0.1053 with p-value of 0.188 which is not statistically significant at any level of significance. The finding is in consistent with the study of Olaye and Olarewaju (2015) but contradicted the findings of Samuel and Peter (2014) who found evidence of significant negative relationship among the variables of the study.

Furthermore, the result provides evidence of an insignificant positive association between cash liquidity and financial performance of listed deposit money banks in Nigeria. The result shows a beta coefficient of 23.7959 with p-value of 0.175 which is insignificant at any level of significance. The result is in line with the findings of Ajibike and Aremu (2015) who found evidence of positive insignificant relationship between cash liquidity and financial, but contradicts Jonathan, Victor and Ifeoma (2013) who found insignificant negative association between cash and financial performance of companies.

Table 4.3 shows that capital adequacy ratio has significant positive influence on financial performance of listed deposit money banks in Nigeria. The value of beta coefficient is 2.7359 while the corresponding p-value is 0.000 which is significant at 1% level of significance. It means that as capital adequacy ratio raises financial performance increases, an indication that having more capital adequacy enhances the financial performance of the banks. This result is consisted with the findings of Asikhia and Sokefun (2013), but contradicts Ikpefan (2013) who found evidence of negative insignificant relationship between capital adequacy ratio and financial performance.

Finally, the result shows that firm size has significant positive relationship with financial performance of listed deposit money banks in Nigeria. The computed value of beta coefficient is 48.4971 with p-value of 0.003 which is statistically significant at 1% level of significant. This implies that the larger the size of the banks, the more it can generate profit to its stakeholders. This result is in line with the findings of Velnampy and Nimalthasan (2010) and contradicted the findings of Ozgulbas, Koyuncugil and Yilmaz (2006) who found positive insignificant relationship between firm size and financial performance.

The combined and overall effect of the predictor variables on the explained variable showed that the model is adequate and free from misspecification. The Wald Chi² value of 11.32 with p-value of 0.0000 which is significant at 1% level of significant shows that the model is well fitted with the variables of the study. Also the coefficient of determination of R² which stands at 47% indicates the proportion of the total variations in dependent variable that is explained by the independent variables. This signifies that 47% of the total variation in financial performance of listed deposit money banks in Nigeria is caused by the combined effect of leverage, deposit growth rate, cash liquidity, capital adequacy and firm

size; while the remaining 53% is caused by other factors outside the model of this study.

5.1 Conclusions and Recommendations

This study investigates the impact of bank attributes on financial performance of listed deposit money banks in Nigeria. Data were sourced and collected from the annual reports and accounts of fourteen deposit money banks in Nigeria, the data were analyzed using multiple regression. It was found that capital adequacy ratio and firm size are positively and significantly influencing the financial performance of listed deposit money banks in Nigeria, while leverage, deposit growth rate and cash liquidity were found to have negative and positive insignificant influence on financial performance of listed deposit money banks in Nigeria.

In view of the findings, it is recommended that listed deposit money banks in Nigeria should increase their capital adequacy ratio and size of their operations, since it was found that both capital adequacy and firm size have positive significant influence on banks' financial performance which may eventually increase their profits thereby attracting more investors into the banks. Also, the management of listed deposit money banks in Nigeria should reduce the level of leverage in their capital structure and focused more attention on equity financing, since leverage has negative insignificant impact on their financial performance. Finally, the listed deposit money banks in Nigeria should increase their deposit growth rate and cash liquidity, since the result is found to have positive insignificant influence on financial performance.

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