



Determinants of Financial Performance of Deposit Money Banks in Nigeria

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Abstract

This study examines the determinants of financial performance of deposit money banks in Nigeria. The aim of the study is to examine the significant effect of capital adequacy ratio, non-performing loan, liquidity and firm size on financial performance of deposit money banks. The study used descriptive statistics and panel random effect technique. The study reveals that capital adequacy significantly and negatively affects the performance of Deposit money banks in Nigeria. Additionally, the outcome shows that nonperforming loans have no significant effect on the performance of listed Deposit Money Banks in Nigeria. The influence of liquidity on the financial performance of Deposit money banks in Nigeria appears to be favorable but is not statistically significant. Liquidity has no significant effect on performance of listed Deposit money banks. The study recommends that Deposit money banks should assess their approaches to capital management. In order to reduce the risk associated with non-performing loans, banks should think about diversifying their loan portfolios. Though liquidity might not have a statistically significant effect on financial performance, banks should nevertheless follow good liquidity management procedures to make sure they can pay short-term obligations and stay clear of possible cash flow problems. To increase their size and market presence and boost financial performance, Deposit Money Banks should focus more about expansion options including mergers and acquisitions.

Keywords: Non-performing loan, Liquidity, Capital adequacy, Liquidity, Deposit Money Banks

1.1 Introduction

In the banking sector, a bank's financial performance is a crucial determinant of how effectively it uses its resources to create income, control risks, and appease stakeholders such as shareholders, customers, and regulators. Examining a number of variables, including Non-performing loan, liquidity, firm size and capital adequacy are part of evaluating a bank's financial performance.

Non-performing loans (NPLs), liquidity, firm size, and the capital adequacy ratio (CAR) are common proxies used to assess financial performance in the banking industry. These measurements support banks in addressing operational and risk-related problems. The ratio of a bank's capital to its risk-weighted assets is called the capital adequacy ratio. It assists regulators in making sure banks can satisfy their responsibilities and withstand an

acceptable amount of loss. It illustrates how resilient a bank is to monetary strain. Loans that the borrower is not repaying any principal or interest on are referred to as non-performing loans. A loan is usually deemed "non-performing" if payments are past due for more than ninety days. Low credit risk management and declining loan quality are indicated by a high non-performing loan ratio.

Banks with significant non-performing loans (NPLs) have lower profitability since they can't extract as much revenue from their assets. Non-performing loans (NPLs) can also be a sign that the bank is holding high-risk assets, which makes it more susceptible to losses. When a bank has liquidity, it means that it can pay its short-term debts without obtaining outside financing. It gauges the ease with which assets can be convertible into cash.

A bank's liquidity position is critical for sustaining trust among depositors and investors, and as such, it affects the overall financial performance. In the banking industry, firm size is often measured by the total assets held by the bank; larger banks are generally expected to have greater market power, greater economies of scale, and more diversified portfolios; larger banks may perform better financially due to their ability to spread risks and costs over a larger base. The banking industry faces a number of performance challenges, many of which are related to the four proxies above:

A low capital adequacy ratio (CAR) can result in banks being undercapitalized, which impacts their capacity to withstand losses during economic downturns. This was made clear during the financial crisis of 2008, when banks failed due to insufficient capital. High non-performing loan levels lead to decreased profitability and strained liquidity, and they are frequently caused by inadequate credit risk management or economic downturns. Because NPLs lower loan revenue, they put pressure on banks' balance sheets. A lack of liquidity may result from inadequate asset-liability management. Banks may not have enough deposits or possess illiquid assets, which makes it difficult for them to fulfill their short-term commitments.

Economies of scale are advantageous to larger banks, but complicated operations often carry hazards. Institutions that are "too big to fail" might take more chances because they believe the government would save them if they run into problems. In the event that banks take on excessive risk, this moral hazard may lower overall performance. The way banks handle capital adequacy, non-performing loans, liquidity, and business size all affect their financial success. These stand-ins are essential for identifying the banks' advantages and disadvantages, helping stakeholders assess the stability and profitability of the institutions.

2.1 Literature Review

The general stability and expansion of the financial industry as well as the larger economy are significantly influenced by the financial performance of Deposit Money Banks (DMBs). By mobilizing deposits and directing them toward profitable investments, DMBs serve as essential financial system intermediaries that promote capital allocation, economic expansion, and financial intermediation. A variety of financial indicators that show these banks' operational effectiveness, risk management, and profitability are commonly used to assess their performance.

2.2 Conceptual Review

i. Financial performance: The ability of deposit money banks (DMBs) to effectively manage their operations and financial resources in order to turn a profit and preserve their financial stability is captured as their financial performance. In the banking sector, a bank's financial performance is a crucial determinant of how effectively it uses its resources to create income, control risks, and appease stakeholders such as shareholders, customers, and regulators.

ii. Capital Adequacy Ratio (CAR): The capital of a bank in relation to its risk-weighted assets is measured by the capital adequacy ratio. It assists regulators in making sure banks can satisfy their obligations and withstand an acceptable amount of loss. It shows how resilient a bank is to monetary pressure.

iii. Non-performing loans: these are those for which the borrower is not returning any principle or interest. A loan is usually classified as "non-performing" if payments are past due by ninety days or more.

iv. Liquidity: The bank's capacity to pay its short-term debts without obtaining outside capital is known as liquidity. It is a gauge of how simple it is to turn assets into cash.

v. Firm Size: Firm size in banking is often measured by the total assets held by the bank. It is often assumed that larger banks will have more diverse portfolios, larger economies of scale, and more market power.

2.3 Empirical Review

2.3.1 Capital Adequacy and Financial Performance

Cheruiyot (2016) investigates how asset quality affects Kenyan commercial banks' profitability. There is a significant correlation between asset quality and profitability for Kenyan commercial banks, the study found. According to Swamy's (2017) comprehensive examination of the variables influencing bank asset quality and profitability between 1997 and 2009, asset quality positively impacts a bank's financial performance. Therefore, in 2007, Lawal and Muturi (2018) examined how capital adequacy affected the operating efficiency of Nigerian banks. According to research conducted up till 2016, operational efficiency is significantly improved by capital adequacy. Capital adequacy has a positive and significant impact on financial performance, according to Gadzo and Asayama (2019), who observed the same result. Capital availability has a positive and considerable impact on the financial performance of Nigerian registered trust banks, according to Oilwe and Sil (2019). Both capital and resources. If we look at the relationship between the capital adequacy ratio and Nigerian banks' efficiency, we discover that they have been together for a very long time.

Mutumira (2019) found that asset quality had both a positive and a negative effect on the financial outcomes of Kenyan insurance businesses from 2014 to 2018, when she looked at how their capital ratios affected those results. In their 2019 study, Ray and Mohapatra examined the effect of the equity ratio on the financial performance of Indian microcredit companies from 2006 to 2013. They found that throughout this period, the equity ratio significantly decreased, which negatively impacted the microcredit enterprises' performance. The impact of macroeconomic factors and private banks on Kuwaiti banks' capital ratios is examined by Hewaidy and Alyousef (2018), who also show how capital ratios can influence how efficiently banks distribute capital and discovered that, more

than any other macroeconomic variable, the capital adequacy ratio is probably impacted by the banks' effective use of their resources.

The study's theoretical foundations are founded on the reliability and trustworthiness of financial institutions as well as a consistent capital ratio that enables long-term planning. For this reason, variable capital adequacy ratios are linked to macroeconomic theory. The aforementioned evaluation leads us to believe that the equity ratio will not significantly affect the financial performance of Nigeria's listed commercial banks.

2.3.2 Liquidity and Financial Performance

Utilizing data from the Turkish retail industry, the impact of liquidity risk management on financial performance is evaluated. The relationship between liquidity risk and financial performance was found to be positively correlated by Yamin, Farhan, and Tabas (2019). Results of Company A: An empirical study of pharmaceutical businesses in India from 2008 to 2017 found that the current pricing has a substantial impact on the profitability of corporations depending on franchise performance. Liquidity and credit risk have a major positive impact on bank profitability and return on capital, according to Nina (2018). When Juan (2015) examined the performance of financial institutions that traded on the Nairobi Stock Exchange, he found a declining correlation between the performance of the latter and that of financial institutions that were listed on the Kenyan Stock Exchange. Charler (2018) examined how liquidity risk impacted bank performance in Ghana between 2007 and 2016. The results show that return on assets and liquidity have a positive relationship. The ratio of real estate to total assets has a negative link with return on capital.

2.3.3 Firm Size and Financial Performance

Nzioka (2013) used panel data from 1998 to 2012 to investigate the association between company size and financial performance, focusing on 43 Kenyan commercial banks. Every independent variable was determined to be statistically significant by the study. In order to determine the relationship between firm size and the performance of companies listed on the Nigeria stock exchange, Olawale et al. (2017) also examined the impact of firm size on the performance of companies in Nigeria using a panel data set of 12 non-financial companies operating in Nigeria between 2005 and 2013. They did this by analyzing the panel data using a pooled regression model, fixed effect model, and random effect model. According to the study's findings, size of company has a beneficial impact on performance when measured in terms of total revenues but a negative impact when measured in terms of total assets. Ngumo et al. (2017) used a descriptive research approach using secondary data from seven banks over a five-year period from 2011 to 2015 to investigate the factors influencing the corporate financial performance of microfinance banks in Kenya. Firm size and financial performance were found to be statistically significantly correlated when the data was analyzed using regression and correlation analysis.

2.4 Theoretical Review

Jensen and Meckling (1976) initially formulated the agency theory, which serves as the theoretical foundation for the relationship between ownership structure and profitability. Their research clarified why managers of organizations with varying capital structures

select distinct activities, and why owners and managers have diverse wants and preferences in a principal-agent relationship. There is a clear theoretical case for the link between ownership structure and profitability: capital market discipline may increase owners' authority over management, providing banks' executives greater motivation to operate profitably and efficiently. Jensen and Meckling's (1976) research offered a theoretical explanation for the relationship between ownership structure and profitability. The idea implies that corporate governance and ownership structure affect performance, which in turn affects bank profitability. According to Samuel (2015), this suggests that strict and value-based banks may be making more money than state-owned, mutual, or cooperative banks.

3.1 Methodology

This study adopts the longitudinal research design. This is due to the fact that the dependent and independent variables have already manifested and therefore inherently non-manipulable by the researchers.

This study uses the ex post facto research approach to assess the correlations between variables in a population with substantially differing features. This entails analytical techniques that utilize secondary data. The Nigeria Exchange Limited (NGX) fact book provided the study's data. Consequently, the Nigeria Exchange Limited provided twelve (12) deposit money institutions that make up the sample for this study. The study will run from 2017 to 2022, a total of six (6) years. Drawing from the research of Yuvaraj and Abate (2013). The model used in this study can be modified as follows:

$$ROA = f(CAR, NPL, LQD, FSZE) - - - - - (3.2)$$

The econometric form of the model above is stated as;

$$ROA_t = \beta_0 + \beta_1 CAR_t + \beta_2 NPL_t + \beta_3 LQD_t + \beta_4 FSZE_t + U_t - - (3.3)$$

ROA = Return on asset

CAR = Capital adequacy ratio

NPL = non-performing loan

LQD = Liquidity

FSZE = Firm size

U_t = Error term.

4. Results and Discussion

4.1 Descriptive Statistics

Table 1 Descriptive Statistics

Table 1 presents the descriptive statistics for determinants of financial performance of deposit money banks in Nigeria.

	ROA	CAR	NPL	LIQ	FSZE
Mean	1.723918	7.655278	8.202292	0.438824	7.423043
Median	1.366500	18.19500	4.560600	0.469500	7.233230
Maximum	10.63980	43.83000	98.00000	0.892000	9.747820
Minimum	-11.05380	-213.6000	0.000000	0.056000	5.567270
Std. Dev.	2.798902	46.06532	13.96828	0.252568	1.129131
Skewness	-1.268435	-4.151027	4.450094	-0.287144	0.288987
Kurtosis	10.41272	19.32650	26.25130	1.842139	2.117329
Jarque-Bera	184.1523	1006.436	1859.508	5.011347	3.339486
Probability	0.000000	0.000000	0.000000	0.081621	0.188295
Sum	124.1221	551.1800	590.5650	31.59530	534.4591

Source: Researcher’s Computation (2024) with E-views 9.0 Software

According to the descriptive statistics, the banks' average Return on Asset is 1.72, which is rather low. The fact that the median value of 1.36 is less than the mean value indicates that the deposit money institutions in our sample do not all have comparable return on assets. The low (negative) minimum value of -11.05380 and the moderately high maximum value of 10.63 support this further. Given that the standard deviation of 2.79 is more than the mean, there is a considerable degree of variability in the Return on Asset figures for the chosen banks. Negative skewness is shown by the skewness value of -1.268. The significance test is passed by the Jarque Bera value of 184.152, however the Kurtosis value of 10.41 is low. Low variability is a trait shared by the independent variables and return on asset. All of the independent variables, with the exception of business size, had significant J-B values. Additionally, while capital adequacy and liquidity were negative, the skewness for the independent variables was positive.

4.2 Random Effects Model

We use the results to draw inferences in this study, and we publish the random-effects estimates as presented in Table 2.

Table 2. Random-Effects Results
Dependent Variable: ROA

<i>Variable</i>	<i>Coefficient</i>	<i>t-Statistics</i>	<i>Prob.</i>
Constant	4.7563	-2.3364	0.0216

CAR	0.0248	-3.4603	0.0310**
NPL	0.0328	-1.4910	0.2108
LIQ	-0.3769	0.2661	0.7910
FSZE	-0.4481	1.4046	0.0149**
R ² = 0.74; Adjusted R ² = 0.71; F = 3.55; D.W = 2.12			

Source: Researcher’s Computation 2024 from E-view 9.0 Software

*p < 0.000 is statistically significant at 1% level. ** P < 0.05 is statistically significant at 5% level.

The goodness of fit values was moderate based on the outcome shown in Table 2. The four explanatory variables—capital adequacy ratio, non-performing loans, liquidity, firm size explained almost 74% of the systematic variation in ROA for the deposit money banks in the sample. The significant F-value indicates that there is a significant linear association between ROA and the independent variables.

Thus, the dependent variable, ROA, and the combined explanatory variables show a substantial linear connection, supporting the hypothesis. The estimate is trustworthy for policy orientations because the D.W. statistic value of 2.12 indicates that autocorrelation is absent.

4.3 Discussion of Results and Policy Implications

The empirical findings demonstrate that capital adequacy significantly and negatively affects the performance of Deposit money banks in Nigeria. It suggests that capital adequacy has an inverse relationship with the performance of deposit money banks in Nigeria since it is a major negative variable. Capital adequacy has no significant influence on performance of Deposit money banks in Nigeria as indicated in table 4.2, with a t value of -3.460354 and a probability value of 0.0310.

Additionally, the outcome shows that nonperforming loans have no significant effect on listed Deposit money banks performance in Nigeria. This implies that the performance of deposit money institutions will decline in response to a rise in nonperforming loans. This study implies that if non-performing loans rise, deposit money institutions in Nigeria would become less profitable. Nonperforming loan has no significant effect on performance of listed Deposit money banks in Nigeria, as seen in Table 4.2, with a t value of -1.491005 and a probability value of 0.2108.

The influence of liquidity on the financial performance of Deposit money banks in Nigeria appears to be favorable but is not statistically significant, which is another significant conclusion from the empirical investigation. This suggests that one of the main variables influencing the financial performance of Nigerian deposit money banks is not liquidity. Liquidity has no significant effect on performance of listed Deposit money banks in Nigeria, as indicated in table 2, with a t value of 0.266 and a probability value of 0.7910.

The results also indicate that the performance of Deposit money banks in Nigeria is significantly impacted by company size. Being a substantial variable, it suggests that a

key element influencing deposit money banks' success is their size. This implies that a larger bank will likewise perform better and more significantly than a smaller bank. Size has no significant effect on performance of Deposit money banks in Nigeria, as indicated in table 4.2, with a t value of -1.404686 and a probability value of 0.0149. This research implies that deposit money institutions in Nigeria might enhance their performance through growth in size. This finding indicates a strong and positive association between firm size and deposit money bank performance).

5. Conclusion and Recommendations

The study's concludes that capital adequacy, operational effectiveness, customer satisfaction, and general economy of Nigeria are all significantly impacted by the

financial performance of Deposit money banks. In addition to helping individual banks, sound financial standing also supports the stability and expansion of the banking industry and the overall economy.

Based on the empirical findings of this study, the following policy recommendations are suggested for policy action:

- i. Deposit money banks should assess their approaches to capital management. Financial performance could be increased without sacrificing safety by looking into alternate funding options or improving capital structure.
- ii. In order to reduce the risk associated with non-performing loans, banks should think about diversifying their loan portfolios. This can entail diversifying into financial product categories or entering industries with lower default rates.
- iii. Though liquidity might not have a statistically significant effect on financial performance, banks should nevertheless follow good liquidity management procedures to make sure they can pay short-term obligations and stay clear of possible cash flow problems.
- iv. To increase their size and market presence and boost financial performance. Deposit money banks should focus more about expansion options including mergers and acquisitions.

References

- Cheruiyot, K. R. (2016). The effect of asset quality on profitability of commercial banks in Kenya (Master's thesis). University of Nairobi.
- Hewaidy, A. M., & Alyousef, H. Y. (2018). Bank specific and macroeconomic determinants of capital adequacy ratio: Evidence from Kuwaiti banks. *European Journal of Economics, Finance and Administrative Sciences*, 99(10), 172–189.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Lawal, T. T., Oluoch, O., & Muturi, W. (2018). Effect of asset quality on the operational efficiency of deposit money banks in Nigeria. *International Journal of Economics, Commerce and Management*, 6(6).

- Mutumira, M. A. (2019). Effect of capital adequacy on the financial performance of insurance companies in Kenya. *International Academic Journal of Economics and Finance*, 11(9), 251–266.
- Ngumo, K., Collins, K. W. and David, S. H. (2017). Determinants of financial performance of microfinance banks in Kenya. *Research Journal of finance and Accounting*, 8(16): 1-8.
- Nzioka (2013). The relationship between firm size and financial performance of commercial banks in Kenya. A research project submitted in partial fulfillment of the requirements for the degree of masters of business Administration. University of Nairobi.
- Olawale, L. S., Bamidele, M. and Lawal, F. K. (2017). The effect of firm size on performance of firms in Nigeria Aestimatio. *The IEB International Journal of Finance*, 2: 2-21
- Ray, S., & Mahapatra, K. S. (2019). Asset quality and performance: An empirical study of Indian microfinance institutions. *International Journal of Services, Economics and Management*, 10(3).
- Swamy, V. (2017). Determinants of bank asset quality and profitability: An empirical assessment. *Applied Economics Quarterly*, 63(1).
- Yuvaraj & Abate G. (2013), performance of insurance companies in Ethiopia, *International Journal of Marketing, Financial Services & Management Research*