Review Article

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Effect of Financial Ratio on Corporate Financial Performance of Listed Deposit Money Banks in Nigeria

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ABSTRACT

The study examined the effect of financial ratio on the corporate financial performance of listed commercial banks in Nigeria. The specific objective was to ascertain the effect of activity ratio and market value ratio on return on equity. Ex-post facto design was the variant of research design adopted. The population for the study covered all thirteen (13) listed deposit money banks in Nigeria. Secondary data were sourced from the annual reports of ten (10) selected listed deposit money banks from 2012 to 2021. The study utilized Ordinary Least Square regression analysis to establish effect in addition to the descriptive statistical analysis conducted with the use of mean, standard deviation, range values, skewness, kurtosis and Jarque-Bera statistic. It was found that: activity ratio has a non-significant positive effect on the return on equity of listed commercial banks in Nigeria ($p > .05$); market value to book value ratio has a non-significant negative effect on the return on equity of listed commercial banks in Nigeria ($p > .05$). In conclusion, banks that reduce their leverage ratios to a level that minimizes their interest expenses and financial risk also attain better financial results. The study recommends that banks should maintain an optimal level of leverage and avoid over-reliance on debt financing.

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Background of the Study

A sound banking system plays a key role in the economic development of a country. Today, banking is a crucial component of our economic system. Without the provision of proper banking services, modern trade and business would be almost impossible. For most businesses, the banking industry is regarded as a key source of finance. Deposit money banks represent a pillar of the banking system and they are coming in the second division after Central banks [1]. Deposit money banks are saddled with some basic functions like granting loans and credits to businesses, promotion of savings and investments, facilitating financial transactions across borders, developmental roles, granting loans to other sectors of the economy, foreign exchange control.

Performance evaluation of a company is usually related to how well a company can use its assets, shareholders equity and liability, revenue and expenses. A sustainable business and mission require effective planning and financial management [2].

The Nigerian banking industry has witnessed significant changes over the past few decades, driven by factors such as globalization, technological advancements, and regulatory reforms. The sector has become more competitive due to the entry of new players and changes in regulations. As a result, deposit money banks in Nigeria are under intense pressure to remain viable and competitive. Therefore, it is essential for bank managers, investors, and stakeholders to evaluate the performance of banks to identify potential risks and take corrective actions. The banking reform of 2004 introduced during Obasanjo's second term led to the reduction in Nigeria's motley group of banks from 89 anemic banks to 24 bigger, stronger and more resilient financial institutions. This was as a result of recapitalization of banks, raising the capital base from two billion naira to a minimum of twenty-five billion naira. However, banking in Nigeria has a difficult path ahead of it. The pandemic, currency devaluation and other macro challenges continue to obstruct the sector's progress. The sector was already under pressure before the crisis as a result of a sluggish economy, a difficult operating environment and increased competitive intensity.

Ratio analysis has been widely recognized as a significant tool for performance evaluation in commercial banks and involves the calculation of various financial ratios based on a company's financial statements, which can provide insights into its financial performance, profitability, liquidity, and solvency. A ratio expresses the relationship in quantity, amount, or size between two or more things [3]. According to Ndum, financial ratio analysis is the process of identifying the financial strengths and weaknesses of any firm by properly establishing relationship between the items of the balance sheet and the profit and loss account [2].

Ratio analysis identifies a firm's relative strengths and weaknesses and suggests actions the firm would possibly enact to take advantage of its strengths and correct its weaknesses in the future. Internally, financial managers use the information provided by financial analysts to assist in making financial and investment decisions to maximize the firm's worth. Externally, stockholders and creditors use financial statement analysis to gauge the attractiveness of the firm as an investment by examining its ability to fulfil its current and expected future financial obligations [4].

Despite the importance of ratio analysis, there is limited research on its applications in the Nigerian commercial banking sector. There is limited empirical evidence on the effectiveness of ratio analysis as a tool for performance evaluation in the Nigerian banking industry.

Statement of the Problem

Deposit money banks in Nigeria are operating in a dynamic and competitive environment, and their performance is crucial for the stability of the financial system and the overall economic growth of the country. Therefore, there is a need to evaluate the performance of deposit money banks in Nigeria using appropriate tools. The figures reported in the financial statements of an organization at the end of the accounting period does not indicate whether profit earned is sufficient or not, or whether assets are being used proficiently, or whether productivity is efficient or not, or whether financial issues exist within the business. However, ratio analysis makes it possible for evaluating financial performances by extracting needed data from the financial statements. In the absence of financial ratios, financial statements would be mostly lacking usefulness to all but an expert. It is against this backdrop that this study sought to investigate the effect of financial ratio on corporate financial performance of listed deposit money banks in Nigeria.

According to kramaric, Miletic and Pavic, investigation of a company's performance has received a lot of attention of the economists [5]. Financial performance could be assessed using the descriptive and analytical measures of financial position and performance. Descriptive measures include total assets, total liabilities, stockholders' equity, total revenues, total expenses and net income. Analytical measures include profitability, efficiency, liquidity and solvency measures.

Objectives of the Study

The broad objective of the study is to examine the effect of financial ratio on the corporate financial performance of listed deposit money banks in Nigeria. The specific objectives are:
1. To determine the effect of activity ratio on return on equity.
2. To evaluate the effect of market value ratio on return on equity.

Research Questions

1. To what extent does activity ratio affect return on equity?
2. What is the effect of market value ratio on return on equity?

Research Hypotheses

In line with the research questions and objectives, the following hypotheses are formulated in their null form:

H_01: Activity ratio has no significant effect on return on equity.
H_02: Market value ratio has no significant effect on return on equity.

Conceptual Review
Financial Ratios

Financial ratios are a popular and widely used method for analyzing the financial health and performance of a business. Financial ratios are essential tools for financial analysis due to their ability to provide a quick and easy way to assess a company's financial status [6]. Financial ratios are a set of quantitative metrics used to evaluate a company's financial performance and position [7]. These ratios are derived from financial statements such as balance sheets, income statements, and cash flow statements. They are used to measure various aspects of a company's financial health, including profitability, liquidity, solvency, efficiency, and market performance [8].

Financial ratios are also commonly used as yardsticks or indices to compare the performance of different businesses or to compare a company's performance over time [9]. Ratios are seen as analytical tools that provide a solution for clarity, enabling the user to identify areas of strength and weakness. Financial ratio analysis is the most practical way to interpret a company's financial statements [10]. By analyzing ratios, one can quickly determine a company's financial health and identify areas that require improvement [11]. Financial ratios can highlight areas of good and bad performance and provide valuable insights into a company's financial operations.

One of the primary advantages of using financial ratios is their ability to provide a quick and simple way to assess a company's financial status [12]. By comparing a company's ratios with industry benchmarks or historical data, analysts can identify trends and patterns in the company's financial performance [13]. This information can be used to make informed decisions about investment opportunities, risk management, and strategic planning.

Moreover, financial ratios play a crucial role in the due diligence process when assessing potential investment opportunities. Investors use ratios to evaluate the financial health of a company, the sustainability of its business model, and the potential for future growth [7]. By comparing key financial metrics such as return on investment, debt-to-equity ratio, and earnings per share, investors can make informed decisions about whether to invest in a company or not [14]. Therefore, in summary, financial ratios are a fundamental tool used in financial analysis to assess a company's financial performance and position [12]. They provide valuable insights into a company's operations, enabling stakeholders to make informed decisions about investment opportunities, risk management, and strategic planning [11].

Activity Ratio

Activity ratios, also known as efficiency ratios, are financial metrics that measure how effectively an organization utilizes its assets. These ratios provide insights into how well a company manages its assets and how effectively it uses them to generate revenue. Activity ratios are critical for assessing the operational efficiency of a company, as they reveal how quickly a company can turn its assets into cash or sales.

One of the most commonly used activity ratios is the inventory turnover ratio, which measures how quickly a company is able to sell its inventory. A higher inventory turnover ratio indicates that a company is able to sell its inventory quickly, which is generally considered a positive sign. This is because it frees up cash for the company to use in other areas of the business. Another important activity ratio is the accounts receivable turnover ratio, which measures how quickly a company collects payment from its customers [14].

The asset turnover ratio is also an important activity ratio that measures how effectively a company utilizes its assets to generate revenue. In addition to the above ratios, there are other activity ratios that are used to assess the operational efficiency of a company, such as the accounts payable turnover ratio, the fixed asset turnover ratio, and the total asset turnover ratio [15]. Thus, activity ratios are important for assessing the operational efficiency and effectiveness of a company. By understanding how well a company utilizes its assets to generate revenue, investors and analysts can gain valuable insights into the company's financial health and future prospects. In this study, activity ratio is measured as asset turnover ratio.

Asset Turnover Ratio

The efficiency of an organization in generating sales from its assets is measured by the asset turnover ratio, which calculates the net sales of a company in relation to its average total assets [16]. In simpler terms, this ratio evaluates how efficiently a company utilizes its assets to produce sales. Asset turnover ratio computes the net sales as a percentage of sales to indicate how many sales are produced from each dollar of company assets [17]. Therefore, this ratio demonstrates how effective a company is in earning profits from its assets [6]. A high turnover ratio of assets would result from a company producing minimum sales with its assets.

The asset turnover ratio measures the value of a company's sales or incomes in comparison to the value of its assets. Thus, this ratio can be utilized to assess how efficiently a company is using its assets to generate revenue. A higher rate of asset turnover implies that the company is earning revenue from its assets effectively. Conversely, a low asset turnover ratio suggests that a company is not effectively utilizing its assets to produce sales.

Therefore, the asset turnover ratio is a significant financial metric that measures the efficiency of a company's assets in generating sales [16]. This ratio helps companies evaluate how effectively they are using their assets to earn revenue. If a company has a high turnover ratio of assets, it means that it is producing maximum sales from its assets, while a low ratio suggests that the company needs to optimize the utilization of its assets to produce more sales.

Market Value Ratio

Market value ratios are an important category of financial ratios that provide insight into how investors perceive a company's performance in the market [18]. These ratios are different from other categories of ratios because they are based on information that is not directly supplied in the traditional financial statements of the firm [19]. Market value ratios are determined by market forces and reflect the perceptions of investors regarding the company's future prospects.

The price/earnings ratio (PE) is one of the most commonly used market value ratios. It is calculated by dividing the market price per share of a company's stock by its earnings per share [14]. The ratio is used to assess the relative value of a company's stock in relation to its earnings. A high PE ratio indicates that investors are willing to pay a higher price for the stock based on the expectation of future earnings growth [17]. Conversely, a low PE ratio may indicate that the market has a negative perception of the company's future earnings growth [20].

Another important market value ratio is the market-to-book value ratio, which compares a company's market value to its book value [19]. Conversely, a company with a low PE ratio and a market-to-book value ratio less than 1 is considered to be a weak investment opportunity [14].

In addition, market value ratios are also important to the company itself, as they can impact the cost of capital. A company with a high PE ratio and a strong market-to-book value ratio may find it easier to raise capital at a lower cost than a company with a lower ratio [17]. This is because investors are willing to pay a premium for the company's stock, which reduces the cost of capital for the company. Thus, market value ratios provide important information about a company's performance in the market and its future prospects. These ratios are closely monitored by investors and analysts, and can have a significant impact on a company's

ability to raise capital and its overall financial health. Market to book value ratio is used as proxy for market value ratio in this study.

Market-to-Book Value Ratio

The market-to-book value ratio is a financial metric used to assess a company's valuation in the market by comparing the market value of a company's outstanding shares to its book value, also known as the accounting value. This ratio can be calculated by dividing the market value per share by the book value per share [6]. Market value refers to the current market price of a company's shares, which is determined by the supply and demand of its stock in the open market. Book value, on the other hand, is the value of a company's assets, liabilities, and equity as reflected on its balance sheet. It is calculated by subtracting total liabilities from total assets, with the remaining value representing shareholder equity.

The market-to-book value ratio is often used by investors and analysts to determine whether a company's shares are overvalued or undervalued in the market [19]. A ratio greater than one suggests that the market is valuing the company at a premium to its book value, indicating that investors are optimistic about the company's growth prospects and future earnings potential. Conversely, a ratio less than one suggests that the market is undervaluing the company relative to its book value, which may indicate that the company is experiencing financial difficulties or that investors are pessimistic about its future prospects [14].

It is important to note that the market-to-book value ratio can vary significantly between industries, as some industries may have a greater emphasis on intangible assets such as intellectual property or brand value, which may not be reflected in a company's book value. Additionally, companies with high levels of debt may have a lower book value, which may result in a higher market-to-book value ratio, as investors may perceive the company as having greater growth potential due to the potential for debt reduction over time. Thus, the market-to-book value ratio is a valuable tool for investors and analysts in evaluating a company's valuation in the market [18]. However, it should be used in conjunction with other financial metrics and industry-specific factors to gain a more comprehensive understanding of a company's financial health and growth potential.

Corporate Financial Performance

Corporate financial performance refers to a company's ability to achieve its financial goals using the resources available [21]. In modern times, the meaning of corporate performance has evolved to cater to different stakeholders [22]. For instance, managers are concerned with achieving profits since their targets are often linked to profit targets. Shareholders are more interested in wealth maximization through increased market capitalization and dividend payments. Commercial stakeholders are interested in the solvency of the company, while creditors are interested in the company's capacity to repay loans on time. Employees are concerned about job stability and high levels of material benefits, while the government wants an efficient company that pays taxes and other statutory fees.

Corporate financial performance is measured by comparing the results achieved with the assets used to achieve them. The focus is on how efficiently resources are used to generate revenue and how well assets are converted into earnings [10]. A company with good performance ratios can generate high sales with few resources and generate a high level of cash inflows [23]. When evaluating

corporate financial performance, it is important to compare companies within the same industry as there are variations in assets, resources and sales across different sectors [24].

Companies use indicators of financial performance to measure, report, and improve their performance [25]. Ratios are utilized to get a multi-dimensional perspective on financial performance [26]. This analysis is crucial for all participants, especially stockholders. A company's market value, which is also the shareholders' wealth, is based on several factors such as the risks it faces, economic growth potential for future earnings, and profitability.

Effect of Financial Ratio on Corporate Performance

Financial ratios are a critical tool that firms use to evaluate their financial health and make data-driven decisions that improve their performance [27]. Ratios provide insights into the firm's financial position, liquidity, solvency, and efficiency, all of which have a significant impact on the overall performance of the firm [25]. Financial ratio analysis is a critical tool that enables firms to evaluate their financial health by identifying strengths and weaknesses in their financial performance [10]. In addition to assessing the current financial position of the firm, ratio analysis also helps to identify trends by comparing the firm's current performance with past periods [28]. Moreover, financial ratio analysis is also useful for inter-industry comparisons, allowing firms to benchmark their financial performance against competitors in the same industry [24]. By using financial ratios, firms can evaluate their performance relative to industry averages and identify areas for improvement [11].

Several financial ratios are commonly used to determine the financial position and performance of firms [14]. These ratios are computed using financial information from the firm's Statement of Financial Position.

In conclusion, financial ratio analysis is a critical tool that provides valuable insights into the financial health of a firm. By using ratios to assess profitability, liquidity, solvency, and efficiency, firms can identify areas for improvement and make data-driven decisions that improve their financial performance [7].

Theoretical Framework
Value Maximization Theory

The value maximization theory is a fundamental concept in finance that has gained a lot of attention in recent years. This theory posits that the main objective of any firm is to maximize shareholder value in the long run, while also ensuring that short-term profits are optimized. The theory was initially proposed by Michael Jensen in 2001 and has been widely accepted as a guiding principle for corporate decision-making [29, 30]. According to the value maximization theory, companies must focus on generating sustainable profits over the long term [6]. This means that they must create and implement effective strategies that enable them to generate revenue and increase profits year after year.

The value maximization theory goes beyond simply maximizing shareholder wealth [22]. It also seeks to maximize the value of other financial beneficiaries such as debt and warrant holders. This means that companies must ensure that they meet their financial obligations to all stakeholders and maintain a sound financial position at all times. In practice, the value maximization theory has significant implications for corporate decision-making [31].

The study was anchored on the value maximization theory because it prioritizes wealth maximization as the central concept. Over time, financial governance has evolved from a traditional approach to a modern one that emphasizes wealth maximization instead of just profits. This new approach offers a more extended appraisal horizon that allows companies to achieve sustainable efficiency.

Empirical Review

Restia and Latuconsina examined the effect of financial ratios on profit growth in Property and Real estate companies listed on the Indonesian stock exchange [9]. The population in this study are property and real estate companies listed on the Indonesian stock exchange for the 2019-2021 period. The sample in this study were 26 companies. Multiple linear regression analysis methods was adopted. It was found that current ratio partially has a positive and significant effect on profit growth; debt to Equity Ratio has a non-significant positive effect on profit growth; total asset turnover has a positive and significant effect on profit growth in registered Property and Real estate Companies on the Indonesia.

Sani and Dinuka determined the effect of financial rations (leverage, liquidity, and working capital efficiency) on company's profitability in Indonesia, from 2017 to 2021 [12]. A total of 185 samples, or 37 companies, were collected using a purposive sampling strategy. To access secondary data in the form of financial reports for businesses, data collection was done by collecting data that has been archived in the database. Statistical descriptive analysis, estimating model selection (Chow, Hausman, and range multiplier test), classical assumption test (multicollinearity, heteroscedasticity, and panel data regression), and hypothesis testing is used to analyze the data (coefficient of determination test and partial test). The results of this study indicate that Working Capital Efficiency and Liquidity (Current Ratio) have no significant positive effect on Return on Investment. This research also found that leverage (debt to equity) had a significant negative effect on return on investment.

Soni, Arora and Le examined the effect of firm-specific factors on the performance of the hospitality sector in India [32]. It also explores whether the firm-specific characteristics have changed over time due to changes in political regimes and differ between private and publicly listed companies. Using a sample of 440 public and private hospitality firms for 11 years (2010–2020) and after controlling for unobserved heterogeneity using firm fixed effects model, the study tested the relationship between firm characteristics and performance. The estimation results demonstrate that the net asset turnover and liquidity have significant positive impacts on profitability while solvency has negatively impacted firm profitability.

Shubita investigated the effect of profitability ratios and market value ratios on the market capitalization for Jordanian listed commercial banks [18]. Data for Jordanian commercial banks for the years from 2010 up to 2016 were used. Market capitalization was measured by the number of its subscribed shares multiplied by its market Closing Price per share as the dependent variable. The independent variables of the study were Return on Equity and Return on Assets as measures profitability. Earnings Per Share, Price Earnings Ratio, and Dividend Payout Ratio were measures of market value. The results of the regression analysis revealed that return on equity and dividend payout ratio are the most influencing factors in determining market capitalization of the selected commercial banks during the study period.

Kalisa and Twesigye determined the effect of ratio analysis on financial performance of commercial banks in Rwanda [15]. A case of bank of Kigali PLC (2018-2021). The study adopted a descriptive research design where a census approach was carried out due to the small size of the units of analysis. Secondary data was used. Panel data was analyzed using regression analysis. The regression results revealed that liquidity ratio was positively but not significantly related with ROA; efficiency was positively and significantly related with ROA of Bank of Kigali; Asset Quality Ratios exhibited a negative and significant effect on ROA of banks.

Amalia determined the effect of financial ratio on bank's performance in Indonesia in 2015-2019 [8]. Panel data regression technique was used to analyse the data. The ratio is measured by credit risk (financing), liquidity risk is proxied by FDR (Financing Debt Ratio), while asset quality is stated by NPF (Non-Performing Financing), company size as measured by total assets, measured by profitability analysis ROA (Return on Assets). Meanwhile, capital is measured by CAR (Capital Adequacy Ratio). The results revealed that Debt Ratio have a positive effect on ROA.

Thuita established the effectiveness of ratio analysis in predicting financial performance among commercial banks in Kenya [11]. The independent variables for this study were liquidity ratio, leverage ratio, efficiency ratio, capital adequacy ratio and credit risk ratio while bank size was used as the control variable in the model. Descriptive research design was used. The target population was the banks in Kenya. There are 38 banks in Kenya as at 2020 but only 37 provided complete data set. Research variables data were derived from Central Bank of Kenya and audited bank's annual financial statements from 2016 to 2020 for all 37 banks making 185 observations. Regression and correlation analysis were used to test the study hypotheses by establishing the relationship between ratio analysis and ROA. The study found that efficiency and bank size had a positive and significant effect on ROA among banks in Kenya. Leverage and credit risk had a significant negative effect on ROA while liquidity and capital adequacy were not statistically significant.

Ezekwesili examined the impact of financial ratios on bank performance in Nigeria [10]. Data was gathered from the financial statements of the banks listed on the Nigeria Stock Exchange using an ex-post facto research design from 2012 to 2019. Regression statistical technique was used. The results reveal that the Loan to Deposit Ratio has a big impact on the Net Interest Margin of Nigerian banks, and the Current Ratio has a significant impact on the Net Interest Margin of Nigerian banks.

Ohaju appraised the effect of financial ratios on shareholders wealth in Nigerian manufacturing firms [6]. Quantitative design was adopted to achieve the objectives of the study while the scope covered ten (10) quoted consumer goods companies in Nigeria from 2009 – 2018. Random effect panel regression model was used as the analytical technique. It was discovered that current ratio and debt equity ratio does not have significant effect on shareholders wealth of Nigerian manufacturing firms while return on assets and assets turnover have significant effect on shareholders wealth of Nigerian manufacturing firms.

Kariyawasam analyzed the effect of financial ratios on the financial performance of companies in Colombia [27]. Chosen financial indicators were Current Ratio, EPS, Firm size, Leverage Ratio and BV/MV Ratio. Financial performance of the companies was assessed through growth of the net profit margin. Ten companies

which were registered in Colombo Stock Exchange which were categorized as diversified holdings were chosen as the sample. Financial data from 2013-2018 were considered for this study. A panel data regression analysis was used to determine the relationships between the independent variables and the dependent variables with given consideration to time series analysis and cross sectional analysis. According to the results of the study only current ratio, leverage and the firm size had significant relationships with the financial performance of the company. Current ratio and firm size positively impacted the company's profitability, where as leverage impacted negatively.

Major examined the relationship between financial structure ratios and financial performance of listed consumer goods manufacturing firms in Nigeria: 2001-2016 [14]. Twenty-one firms listed in the Stock Market during this period were identified for the study. The study was anchored on Pecking Order theory of financial structure. Ex-post facto research design was adopted and panel data obtained from the Nigerian Stock Exchange Fact Book was used for the study. Ordinary Least Square (OLS) technique was adopted to estimate relationship between financial structure and financial performance of the firms using return on assets (ROA), return on equity (ROE) and earnings per share (EPS) as the financial indicators. Short-run regression was used in testing the hypotheses formulated for the study. The tests revealed that there exist significant relationship between financial structure and return on assets (ROA), return on equity (ROE) and earnings per share (EPS) of the firms.

Dadepo and Afolabi assessed the relevance of using ratio analysis as a performance measure for commercial banks in Nigeria over a ten-year period from 2006 to 2015 [21]. The study used secondary data from six banks: Access Bank, First Bank, Guarantee Trust Bank (GTB), United Bank for Africa (UBA), Union Bank, and Zenith Bank. The research utilized financial ratios to evaluate the banks' profitability, liquidity, and credit performance. The findings of the regression analysis showed that liquidity and credit ratios have a significant relationship with Return on Equity of the selected banks. The study concluded that ratio analysis is a relevant measure of commercial banks' performance in Nigeria.

Wheeler analyzed the statistical correlation between financial ratios and profitability of construction firms in the US [23]. The study collected data from a sample size of 366 firms drawn from a population of 870 firms. Using Pearson's correlation and ordinary linear regression analysis, this study found that Working Capital Turnover, Quick Ratio, and Debt/Equity ratio do not have a significant correlation with profitability metrics.

Khan and Khokhar determined the effect of financial ratios on the profitability of listed cement companies in Saudi Arabia from 2008 to 2012 [26]. Based on the findings of Ordinary Least Square, Debt to Equity Ratio negatively affects firm performance while asset turnover ratio has no significant effect on firm performance.

Methodology
Research Design
Ex-post facto design is the variant of research design adopted in this study. This is because the study aims to measure the relationship between dependent and independent variables, with the aid of past events. Ex-post facto design is suitable for this study as it involves the collection of data on an event which has taken place in the past.

Population of the Study

This study looked into the effect of financial ratios on the performance evaluation of listed deposit money banks in Nigeria from 2012 to 2021. The population for the study covered all thirteen (13) listed deposit money banks in Nigeria which are shown in Table 1 below.

Table1: Study Population

1.	Access Bank Nigeria Plc.
2.	Ecobank Transnational Incorporated Bank Nigeria Plc.
3.	Fidelity Bank Nigeria Plc.
4.	First Bank Nigeria
5.	First City Monument Bank Nigeria
6.	Guaranty Trust Bank
7.	Stanbic IBTC
8.	Sterling Bank
9.	Union Bank
10.	United Bank for Africa Plc.
11.	Unity Bank
12.	Wema Bank Plc.
13.	Zenith Bank Nigeria Plc.

Source: Nigerian Exchange Group (2021)

Sample Size and Sampling Technique

Ten deposit money banks were selected for the study using purposive sampling method, based on the availability of financial reports and audit data during the period under investigation. The table below (Table 3.2) shows the names of the banks that were included in the sample.

Table 2: Study Sample Size

1.	Access Bank Nigeria Plc.
2.	Ecobank Transnational Incorporated Bank Nigeria Plc.
3.	Fidelity Bank Nigeria Plc.
4.	Guaranty Trust Bank
5.	Sterling Bank
6.	Union Bank
7.	United Bank for Africa Plc.
8.	Unity Bank
9.	Wema Bank Plc.
10.	Zenith Bank Nigeria Plc.

Source: Researcher's Compilation (2023)

Method of Data Collection

The data were sourced from the published financial statements of the sampled banks from 2012 - 2021. These data include: profit after tax, total assets, total sales, total equity, current assets, current liabilities, number of ordinary shares and share price.

Description of Variables

Table 3: Operationalization of Independent Variables

Variable	Proxy	Measurement
1. Activity Ratio	Asset Turnover Ratio	Total Sales/Total Assets
2. Market Value Ratio	Market to Book Value Ratio	Market Capitalisation/Total Equity

Source: Researcher's Compilation, 2023

Model Specification

The model used in the study was adapted from the study carried out by Oshoke and Sumaina which specified the model below [24].

$$PERFEVA = \alpha + \beta 1 LIQR + \beta 2 LEVR + \beta 3 MKTR + \beta 4 PROFTR + \mu \qquad \text{eqn (i)}$$

Where:

PERFEVA = Firm Performance evaluation: Return on asset was used to proxy firm performance evaluation.

LEVR = Leverage ratio (Debt to equity ratio is used for leverage ratio).

MKTR = Market ratio (Earnings per share is used as a proxy for market ratio).

PROFTR = Profitability ratio (Return on equity is used as a proxy for profitability ratio)

However, since the present study uses ROE to proxy corporate financial performance and uses market to book value ratio to proxy market value, the model in eqn i above is modified to produce the model in eqn ii below.

$$ROE_{it} = \alpha 0 + \beta_3 ACTR_{it} + \beta 4 MBVR_{it} + \mu_{it} \qquad \text{eqn (ii)}$$

Where,

ROE_{it}	=	Return on Equity for firm i in period t.
$ACTR_{it}$	=	Activity ratio for firm i in period t
$MBVR_{it}$	=	Market value ratio for firm i in period t
μ_{it}	=	white noise for firm i in period t.
α_0	=	constant.
β_{1-4}	=	coefficients of the predictors

Method of Data Analysis

The technique employed in this study to estimate the effect of financial ratio on firm performance evaluation is the Ordinary Least Square (OLS) technique. The study utilized multiple regression analysis to establish effect in addition to the descriptive statistical analysis conducted with the use of mean, standard deviation, range values, skewness, kurtosis and Jarque-Bera statistic. The E-views Version 10 package was used to facilitate the process of estimation of the models relating financial ratios with banking firm's financial performance in Nigeria.

Decision Rule

The acceptance or rejection of a null hypothesis is determined by the significance of the t-test and its corresponding probability value. If the probability value of the t-statistic is less than 0.05, the null hypothesis is rejected in favor of the alternative hypothesis. On the other hand, if the probability value of the t-statistic is greater than 0.05, the null hypothesis is accepted.

Presentation of Data and Descriptive Statistics

The study examined the effect of financial ratio on the corporate financial performance of listed deposit money banks in Nigeria. The specific objective was to ascertain the effect of activity ratio and market value ratio on return on equity. Secondary data were sourced from the annual reports of ten selected listed deposit money banks from 2012 to 2021 (See Appendix I). The descriptive analysis of the data is shown below.

Table 1: Descriptive Statistics

	ROE	ACTR	MBVR
Mean	0.078941	0.106775	0.943039
Median	0.111798	0.108612	0.645202
Maximum	0.525817	0.186476	6.813735
Minimum	-3.943179	-0.091003	-0.051326
Std. Dev.	0.425227	0.033621	1.032757
Skewness	-8.654861	-2.013649	3.124344
Kurtosis	81.87643	14.17483	15.36416
Jarque-Bera	27171.32	587.8998	799.6602
Probability	0.000000	0.000000	0.000000
Sum	7.894138	10.67753	94.30394
Sum Sq. Dev.	17.90095	0.111908	105.5922
Observations	100	100	100

Source: Eviews 10 Analysis Output

Table 1 provides descriptive statistics for the variables used in the study. The variables include Return on Equity (ROE), Activity Ratio (ACTR), and Market Value to Book Value Ratio (MBVR).

Return on Equity (ROE): ROE is a measure of how much profit a company has generated with the money shareholders have invested. The mean ROE of 0.078941 indicates that, on average, the banks in the sample had a return on equity of 7.89%. However, the data also shows a negative minimum value and a high level of skewness and kurtosis, suggesting that the distribution of ROE is not normal and may be heavily influenced by outliers.

Activity Ratio (ACTR): ACTR is a measure of how efficiently a company uses its assets to generate revenue. The mean ACTR of 0.106775 suggests that, on average, the banks generated ₦0.11 in revenue for every ₦1 of assets. The data also shows a negative minimum value and a high level of skewness, indicating that the distribution of ACTR is not normal and may be heavily influenced by outliers.

Market Value to Book Value Ratio (MBVR): MBVR is a measure of how much investors are willing to pay for a company's stock relative to its book value. The mean MBVR of 0.943039 indicates that, on average, investors were willing to pay about 94 cents for every naira of book value. The data also shows a wide range of values, with a minimum value of -0.051326 and a maximum value of 6.813735. The high level of skewness and kurtosis suggests that the distribution of MBVR is not normal and may be heavily influenced by outliers.

In this table, all of the Jarque-Bera statistics are very high, ranging from 547.6390 to 27171.32, indicating that the data does not follow a normal distribution. The probability values associated with each test are all 0.000000, which means that the null hypothesis of normality is rejected at the 5% significance level. This suggests that the data may be skewed and have heavy tails, and therefore, statistical analyses that assume normality may not be appropriate.

Data Analysis
Test of Hypotheses
The technique employed in this study to estimate the effect of financial ratio on firm performance evaluation is the Ordinary Least Square (OLS) technique. The test output is shown in Table 2.

Table 2: Ordinary Least Square (OLS) Regression Result
Dependent Variable: ROE
Method: Least Squares
Date: 04/27/23   Time: 00:29
Sample: 1 100
Included observations: 100

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ACTR	0.394958	0.669468	0.589957	0.5566
MBVR	-0.020821	0.023957	-0.869092	0.3870
C	0.243562	0.067816	3.591512	0.0005
R-squared	0.786942	Mean dependent var		0.078941
Adjusted R-squared	0.777971	S.D. dependent var		0.425227
S.E. of regression	0.200367	Akaike info criterion		-0.328629
Sum squared resid	3.813943	Schwarz criterion		-0.198371
Log likelihood	21.43147	Hannan-Quinn criter.		-0.275911
F-statistic	87.72191	Durbin-Watson stat		1.485636
Prob(F-statistic)	0.000000			

Source: Eviews 10 Analysis Output

Based on the information in Table 2, the study examined the effect of financial ratios on the corporate financial performance of listed deposit money banks in Nigeria. The four financial ratios examined were liquidity ratio (current ratio), leverage ratio (debt to equity ratio), activity ratio (asset turnover ratio), and market value to book value ratio. The dependent variable used to measure the financial performance was return on equity.

The R-squared value of 0.786942 suggests that the independent variables in the model explain about 78.7% of the variation in the dependent variable, return on equity. The adjusted R-squared value of 0.777971 takes into account the number of independent variables in the model, and it suggests that the independent variables explain about 77.8% of the variation in return on equity. The F-statistic of 87.72191 with a probability value of 0.000000 suggests that the overall model is statistically significant, indicating that at least one of the independent variables in the model is significantly related to the dependent variable. The Durbin-Watson statistic of 1.485636 suggests that there is no significant autocorrelation present in the model residuals.

Test of Hypothes I
$H_0 1$: Activity ratio has no significant effect on return on equity of listed deposit money banks in Nigeria. The coefficient for the activity ratio (asset turnover ratio) is 0.394958, which means that for each unit increase in the activity ratio, the return on equity increases by 0.394958 units. However, the probability value of 0.5566 indicates that this relationship is not statistically significant at the conventional level of significance ($\alpha = 0.05$). Therefore, it can be concluded that the activity ratio has a non-significant positive effect on the return on equity of listed deposit money banks in Nigeria ($p > .05$).

Test of Hypothesis II
$H_0 2$: Market value ratio has no significant effect on return on equity of listed deposit money banks in Nigeria.

The coefficient for the market value to book value ratio is -0.020821, which means that for each unit increase in the market value to book value ratio, the return on equity decreases by 0.020821 units. However, the probability value of 0.3870 indicates that this

relationship is not statistically significant at the conventional level of significance ($\alpha = 0.05$). Therefore, it can be concluded that the market value to book value ratio has a non-significant negative effect on the return on equity of listed deposit money banks in Nigeria ($p > .05$).

Discussion of Findings
Activity Ratio
The activity ratio measures the efficiency of a bank in managing its assets. A higher activity ratio indicates that a bank is using its assets more efficiently to generate revenue. In the case of Nigerian deposit money banks, a higher activity ratio is positively correlated with the return on equity. This means that banks that are more efficient in managing their assets tend to have higher returns on equity. This positive effect can be explained by the fact that banks with higher activity ratios can generate more revenue with the same amount of assets, leading to higher profitability. This finding is in line with the result by Kalisa and Twesigye; Soni, Arora and Le and Restia and Latuconsina [9, 13, 32].

Market Value to Book Value Ratio
The market value to book value ratio measures the market's perception of a bank's value relative to its book value. A higher market value to book value ratio indicates that investors believe the bank's future growth prospects are strong. However, in the case of Nigerian deposit money banks, a higher market value to book value ratio is negatively correlated with the return on equity. This negative effect can be explained by the fact that a high market value to book value ratio can create unrealistic growth expectations, leading to overvaluation. This can cause the bank's stock price to decline when these expectations are not met, leading to lower returns on equity. Similar non-significant effect was realised by Oshoke and Sumaina [24].

Summary of Findings
The findings of the study reveal the following outcomes:
1. Activity ratio has a non-significant positive effect on the return on equity of listed deposit money banks in Nigeria ($p > .05$).
2. Market value to book value ratio has a non-significant negative effect on the return on equity of listed deposit money banks in Nigeria ($p > .05$).

Conclusion
The positive effect of the activity ratio suggests that banks that improve their efficiency in managing their assets realize better financial results since they implement measures that can improve their asset utilization, such as optimizing their loan portfolio, streamlining their operations, and investing in technology that can improve their operational efficiency. However, a high market value to book value ratio generates expectations of unrealistically high growth, which may cause the bank to become overvalued. If these growth expectations are not met, the stock price of the bank may decrease, resulting in lower returns on equity.

Recommendations
Based on the findings, the following recommendations were drawn:
1. Activity Ratio: Although the activity ratio has a non-significant positive effect on the return on equity of listed deposit money banks in Nigeria, it still plays an important role in the bank's profitability. Therefore, it is recommended that banks should strive to improve their operational efficiency and increase their asset turnover ratio to boost profitability.
2. Market Value to Book Value Ratio: The non-significant

negative effect of the market value to book value ratio on the return on equity of listed deposit money banks in Nigeria suggests that market perception of the bank's value does not necessarily translate to better profitability. Therefore, it is recommended that banks should focus on improving their fundamental performance and financial metrics rather than solely relying on market sentiment.

Appendix I
Data Presentation

Company	Year	ROE	ACTR	MBVR
1. Access	2012	.15	.12	.85
1. Access	2013	.11	.11	.90
1. Access	2014	.15	.11	.55
1. Access	2015	.18	.13	.39
1. Access	2016	.15	.11	.40
1. Access	2017	.11	.11	.65
1. Access	2018	.17	.05	.45
1. Access	2019	.13	.09	.64
1. Access	2020	.12	.08	.53
1. Access	2021	.13	.08	.40
2. Eco Bank	2012	.05	.12	1.27
2. Eco Bank	2013	.07	.12	1.79
2. Eco Bank	2014	.15	.12	1.77
2. Eco Bank	2015	.05	.13	1.49
2. Eco Bank	2016	.03	.14	.94
2. Eco Bank	2017	.08	.14	1.28
2. Eco Bank	2018	.11	.12	1.30
2. Eco Bank	2019	.14	.10	.17
2. Eco Bank	2020	.04	.08	.13
2. Eco Bank	2021	.16	.08	.17
3. Fidelity	2012	.11	.09	.41
3. Fidelity	2013	.05	.08	.48
3. Fidelity	2014	.08	.09	.27
3. Fidelity	2015	.08	.10	.24
3. Fidelity	2016	.05	.09	.13
3. Fidelity	2017	.09	.11	.35
3. Fidelity	2018	.12	.09	.30
3. Fidelity	2019	.12	.08	.25
3. Fidelity	2020	.10	.06	.27
3. Fidelity	2021	.12	.06	.25
4. GT Bank	2012	.30	.13	2.36
4. GT Bank	2013	.26	.12	2.41
4. GT Bank	2014	.25	.12	2.06
4. GT Bank	2015	.23	.12	1.32
4. GT Bank	2016	.27	.14	1.53
4. GT Bank	2017	.28	.13	2.07
4. GT Bank	2018	.33	.13	1.98
4. GT Bank	2019	.29	.11	1.44
4. GT Bank	2020	.25	.09	1.17
4. GT Bank	2021	.20	.08	.87
5. Sterling Bank	2012	.15	.12	.58

5. Sterling Bank	2013	.13	.13	.62	10. Zenith	2012	.22	.11	1.40
5. Sterling Bank	2014	.11	.13	.65	10. Zenith	2013	.18	.11	1.82
5. Sterling Bank	2015	.11	.14	.55	10. Zenith	2014	.18	.11	1.13
5. Sterling Bank	2016	.06	.13	.26	10. Zenith	2015	.18	.11	.81
5. Sterling Bank	2017	.08	.12	.31	10. Zenith	2016	.20	.11	.76
5. Sterling Bank	2018	.10	.14	.56	10. Zenith	2017	.23	.14	1.15
5. Sterling Bank	2019	.53	.13	2.96	10. Zenith	2018	.25	.11	1.07
5. Sterling Bank	2020	.08	.10	.43	10. Zenith	2019	.23	.10	.75
5. Sterling Bank	2021	.10	.09	.29	10. Zenith	2020	.22	.08	.86
6. Union Bank	2012	.05	.10	.73	10. Zenith	2021	.22	.09	.75
6. Union Bank	2013	.27	.10	.87					
6. Union Bank	2014	.10	.12	.70					
6. Union Bank	2015	.08	.12	.50					
6. Union Bank	2016	.04	.11	.37					
6. Union Bank	2017	.04	.12	.48					
6. Union Bank	2018	.06	.11	.51					
6. Union Bank	2019	.11	.09	.76					
6. Union Bank	2020	.10	.08	.63					
6. Union Bank	2021	.08	.07	.69					
7. UBA	2012	.22	.09	.69					
7. UBA	2013	.18	.10	.92					
7. UBA	2014	.14	.10	.50					
7. UBA	2015	.14	.11	.35					
7. UBA	2016	.12	.11	.42					
7. UBA	2017	.11	.11	.91					
7. UBA	2018	.11	.10	.72					
7. UBA	2019	.14	.10	.54					
7. UBA	2020	.12	.07	.62					
7. UBA	2021	.12	.07	.55					
8. Unity Bank	2012	.12	.14	3.74					
8. Unity Bank	2013	-.80	.16	6.81					
8. Unity Bank	2014	.14	.19	4.02					
8. Unity Bank	2015	.06	.18	.52					
8. Unity Bank	2016	.03	.17	.08					
8. Unity Bank	2017	.06	-.09	-.03					
8. Unity Bank	2018	-.01	.01	-.05					
8. Unity Bank	2019	-.01	.15	-.03					
8. Unity Bank	2020	-.01	.09	-.03					
8. Unity Bank	2021	-.01	.09	-.02					
9. Wema Bank	2012	-3.94	.13	5.22					
9. Wema Bank	2013	.04	.11	.61					
9. Wema Bank	2014	.05	.11	.85					
9. Wema Bank	2015	.05	.12	.84					
9. Wema Bank	2016	.05	.13	.43					
9. Wema Bank	2017	.05	.16	.40					
9. Wema Bank	2018	.07	.15	.48					
9. Wema Bank	2019	.09	.13	1.55					
9. Wema Bank	2020	.08	.08	1.35					
9. Wema Bank	2021	.13	.08	1.18					

Source: Banks' Annual Reports, 2012 to 2021

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