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LEVERAGE RATIOS AND STOCK RETURNS OF DEPOSIT MONEY BANKS IN NIGERIA

Vincent Afure Akpotor

Department of Accounting, Banking and Finance, Michael and Cecilia Ibru University Agbarha-Otor, Delta State Nigeria. E-mail: akposdprof@gmail.com

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Abstract: Financial statement contains the financial information about the operations of firms over a period, as well as the value of assets, liabilities and equity at a specific date. The major objective of this study is to ascertain the relationship between leverage ratios and stock returns of deposit money banks in Nigeria for the period 2011-2022. The study used total debt to asset ratio, total debt to equity ratio as independent variables. While, stock returns of deposit money banks was used as the dependent variable. The study used secondary data obtained from the financial statement of sampled banking firms and the records of Nigeria Exchange Limited (NGX) for analysis. The study Generalized Method of Moments (GMM) technique for data analysis. Findings from the analysis revealed that total debt/asset ratio had positive and significant relationship with stock returns of deposit money banks in Nigeria, while total debt/equity ratio had negative and no significant relationship with stock returns. The positive relationship as exhibited by debt asset ratio confirm the asset transformation process of bank operations, especially as deposit transformed to loan becomes the assets of banks. While, the indirect relationship as shown by debt equity ratio revealed the danger posed by increase in debt in relation to equity, if debt is not linked to investment in viable assets. Therefore, the study recommended that; Deposit Money Banks should invest created liabilities in verified-profitable choices of assets, to generate "above-cost" returns and ensure favourable leverage; and cost of debts should be properly analyzed prior to procurement.

JEL: *G10, GII, G53, F65.*

Keywords: Leverage Ratios, Stock Returns, Deposit Money Banks, Total Debt/Asset ratio, Total Debt Equity Ratio.

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I. INTRODUCTION

Financial statement generally consists of the statement of financial performance and other comprehensive incomes otherwise known as income statement, statement of financial position also known as the balance sheet, statement of cashflow, statement of changes in owners' equity and footnotes (Lynch, 2000). A common way of relating financial statement figures to one another, in order to allow for meaningful and understandable interpretation is through ratios analysis. Pandey (2010) sees financial ratio analysis as a process of identifying the financial strength and weakness of the firm by properly establishing relationships in the firm, through appropriate establishment of relationships between the items of the statement of financial position and the income statement. Pandey (2010) posited that ratio analysis is a powerful tool of financial analysis. A ratio is used as a benchmark for evaluating the financial position and performance of a firm. Thus, the relationship between two accounting figures expressed mathematically is known as financial ratio. Financial ratios allow experts to blend large amounts of financial and accounting data into metrics that can be easily linked and compared (Lynch, 2000). Inspection of these ratios can help to measure the financial health of a firm. Financial ratios are brilliant tool for understanding company`s performance, to ascertain whether a company is improving or declining, there are several parties that make use of financial ratios to provide insight into company performance, or to use them as pointers to the financial health of a firm (Gitman etal., 2015).

Leverage Ratios are a set of ratios normally used to gauge the portion of a company's assets funded by debt. Debt to Equity Ratio (DER) is calculated by dividing debt with equity. It is the ratio between total debts to total shareholders' equity of the company. Debt is the addition of short-term debt and long-term debt. Shareholders Equity is total equity (total of paid-up share capital and retained earnings) owned by the company (Brigham & Houston, 2019). It is used to measure the readiness of an organization to meets her long-term obligations as they mature. Stock Returns is the return on investment in shares, it consists of dividends and capital gains. Dividends represent the proportion of income distributed to shareholders. While, capital gains are the spread between the bidding price and the asking price of an investment instrument (Yudianto et al., 2018). The average return is the rate of return that investors expect in the future. While the actual return is the rate of return that has been obtained in the past. Between the expected level of return and the actual return is a risk

that must be measured in the investment process (Wilkens et al., 2006). Debts contracted in the short and long terms are used to acquire assets to aid a firm's profitable operation; the results of such operations are recorded in the financial statement in monetary variables and values. Thus, financial ratios from such statement could have a relationship with the returns as expected by investors. Nevertheless, researches such as (Ligocka, 2018; Rehman et al., 2016) have shown divergent findings in various parts of the globe and in Nigeria not researches about the subject are still minimal in recent times. Therefore, objective of this study is to ascertain the relationship between financial ratios and stock returns of deposit money banks in Nigeria.

II. CONCEPTUAL, THEORETICAL AND LITERATURE REVIEWS

1. Conceptual Review

Financial ratios are meaningful links between different entries of financial statements, as by themselves the financial entries offer little in a bid to examine a company. In addition to providing information about the financial health and prospects of a company, financial ratios also allow a company to be viewed in a relative sense, in comparison with its own historical performance and other firms operating in the same sector/industry of the economy, or between any two companies in general (Corporate Finance Institute, 2022).

Leverage Ratios

Leverage Ratios are a set of ratios normally used to gauge the portion of a company's assets funded by debt. Debt to Equity Ratio (DER) is calculated by dividing debt with equity. It is the ratio between total debts to total shareholders' equity of the company, while debt to asset ratio measures the debt component in the total assets used for operations by a firm. Debt is the addition of short-term debt and long-term debt. Shareholders Equity is total equity (total of paid-up share capital and retained earnings) owned by the company (Brigham & Houston, 2019). Ratios in this category are used to measure the readiness of an organization to meets her long-term obligations as they mature.

Stock Returns

Stock Returns is the return on investment in shares. It consists of dividends and capital gains. Dividends represent the proportion of income distributed

to shareholders, while, capital gains are the spread between the bidding price and the asking price of an investment instrument (Yudianto et al., 2018). The average return is the rate of return that investors expect in the future, while the actual return is the rate of return that has been obtained in the past. Between the expected level of return and the actual return is a risk that must be measured in the investment process (Wilkens et al., 2006).

The conception of return is divided into two viz; single return and portfolio return (Lin et al., 2010). A single return is the gain received from an investment in the form of realized returns and expected returns. Realized returns are returns that are calculated based on past data and adopted as a gauge of company performance. Historical returns are also handy as a foundation for defining expected returns. Expected return is the return expected by investors in the future (Ivanisevic & Hernaus, 2019; Wilkens et al., 2006). The sum of dividends and movement in stock price represented the return on stock. Stock return could be calculated by the following formula: Return on Stock = Shareholders Total Returns = Dividends + Capital Gains/Loss

Where;

Dividend: represent the proportion of income distributed to shareholders (per share)

Capital Gain/Loss: represent the periodic movement of stock price (the price of a single stock of a company's saleable equity shares).

2. Theoretical Framework

Agency Theory

Jensen and Meckling (1976) defined an agency relationship "as a contract by which one or more persons (the principal) engage another person (the agent) to perform some services on their behalf which involves delegating some decision making authority to the agent". The agency theory in finance center on the decision linked to conflicts between managers and company's shareholders and managers as it concern optimal recourses allocation for investment, financing and dividend policy of a firm. The agency theory is connected to the study of ways of reducing conflicts between managers and stockholder. In the finance and economic literature, the agency theorists are anxious on how to design optimal contract to monitor managers' decision making in order to reduce

the principal (stockholder) – agent (managers) problems. That is, ways to resolve conflicts between managers and their principal on issues related proper management of the firm in order to maximize return.

Separation Theorem

Irving Fisher postulated the theory known as separation theorem in 1930, in which he stated that in an efficient market, managers should solely focus on maximizing profits irrespective of the goals and preferences of the shareholders. Fisher's separation theorem also referred to as the portfolio separation theorem, states that the foremost thing that a corporation need to do is to grow its present value as much as possible. Fisher separation theorem posited that managers and investors have different consumption objectives. Neither party is capable of assessing and obtaining the objectives of the other party. Fisher's answer to this problem is for managers to optimize profits and company value, though it may contradict shareholder utility preferences, their long-term utility will still be maximized by this approach. The conclusion of Fisher's separation theorem is a result of the lending and borrowing (trading) opportunities in the efficient market. By utilizing these opportunities, investors can make trades according to their individual marginal rate of substitution to achieve their personal preferences and reach optimal allocation.

Efficient Markets Hypothesis

Fama (1970) theorized the efficient market hypothesis, which described the efficient market as a market where prices of securities fully reflect all available information. This theory adopts symmetric information where all parties possess the same knowledge about relevant events and developments. According to this model, new information is reflected in the prices of securities without any delay due to a rapid dissemination of knowledge. This is the basic meaning of efficiency in the markets. That is, a market where prices of securities becomes the signal for efficient resource allocation.

This study is anchored on reviewed theories eclectically: The agency theory as advanced by Jensen and Meckling (1976), Fisher's Separation Theorem as put forward by Irvin Fisher in 1930 (Investopedia, 2021; Lu, et al., 2022) and the efficient market hypothesis as advanced by Fama (1970). The agency theory posit that managers as agents are engaged by the shareholders as principal to

manage the corporation profitably in the interest of the principal. The report of management are summarized in the financial statement. However, according to Fishers Separation Theorem, a corporation has many shareholders. The managers cannot be expected to know or consider the preferences of each individual shareholder and the shareholders usually do not have enough insight into the business to make optimal decisions. Fisher's answer to this problem is for managers to maximize profits and company value, even though it may contradict shareholder utility preferences, their long-term utility will still be maximized by this approach. In order to maximize the utility of each investor, stock return need to be maximized as profit information are reflected in the value of shares traded in the capital market as advocated in the efficient market hypothesis.

3. Empirical Review

Widyastuti (2019) carried an explanatory study, "discussing the effect of liquidity, activity and leverage on company performance and the value of food and beverage companies listed on the Indonesia Stock Exchange". The population of the study is made of all food and beverage enterprises registered to trade on the IDX, time series data were obtained for a three-year period (2015-2017). The study adopted multiple regression with ordinary least square technique. The results showed that liquidity measures of cash ratio, quick ratio, current ratio, are significant and positively related to equity performance. While, activities ratios as measured using profit after tax, and leverage ratios as measured using debt asset ratio and debt equity ratio did not significantly influence equity performance and firm value.

Another work by Rehman et al (2016) studied the relationship between Leverage related ratios and stock returns in Pakistani non-financial sector (textile enterprises) that trades on stock exchange in Pakistan covering the period 2013 to 2018. The study adopted the ordinary least square regression technique, with stock returns as dependent variable. While, total debt and interest coverage ratios as proxies for leverage and independent variables. The results submitted that there is a negative relationship between debt-to-equity ratio and stock returns and a positive relationship between interest coverage ratio and stock return. The results reveal that investors are not paid as much as the extent of their high risk taking in high leveraged firms.

The study done by Matemilola et al. (2012) to know the effect of debt leverage on equity-investors expected return in South Africa. Using panel data and the generalized method of moment (GMM) analytical method. The findings showed that long term debt is directly related to equity holder's expected return. Also, total debt is directly related to equity holder's expected return. Because on the findings, the study suggested that debt leverage is a vital factor to be considered in equity value process. The findings further suggested that the composition and nature of firms' capital combination decision should not be ignored.

Another study by Medyawati and Yunanto (2016) examined leverage ratio effect on stock return in construction, property and real estate firms operating on the Indonesia Stock Exchange for the period 2011-2014. They opined that the main purpose of potential investors is to invest in securities and obtain maximum rate of return and minimum risk. Numerous factors are used in the process of predicting stock returns, one of which is to calculate financial ratios of the company which should ordinarily include leverage ratios. It is expected that, the level of financial performance of a company lead stock price and benefit (return) expected by investors. The study analyzed Assets Turnover, Return on Assets, Debt to Equity Ratio, Price to Book Value, Current Ratio, and Total as regressor variables stock returns as the regressed variable. Data for the study were obtained by using purposive sampling method. The analytical tool used is a panel data regression analysis. The results showed that DER influences the stock return.

Bhandari (1988) analyzed the relationship between leverage and future average stock return with debt/equity ratio as a risk measure and the analysis revealed a positive relationship between leverage and average future return, controlling for market beta and firm size. The data used for the study were collected from COMPUSTAT, Center for Research in Security prices (CRSP) while, adopting two sample periods 1948-1949 and 1980-1981. The study of Fama and French (1992) showed opposite (negative relationship) between the variables of book-leverage, size, book-to-market equity and earnings to price ratios for the non-financial firms in the NYSE, AMEX and NASDAQ stock exchanges, gathering data from CRSP and the COMPUSTAT data-store for the period from 1962 to 1989. However, Penman, Richardson, and Tuna (2007) avowed that, the variation in the findings could be cause by "relative

distress" which is captured in the computations of the variance between the book and the market equity or supposing leverage constituent of the book-to-price ratio.

Adamia et al. (2010) examined the relation between irregular stock returns and leverage. Leveraging on the postulations of Modigliani and Miller's (1958). The findings specified that returns were decreasing in leveraged firms. The results further showed that leverage is a firm feature that raises risk factor(s). This signal proposes that leverage should be labelled as a risk element and necessitates adequate inclusion into common asset pricing models.

The work by Pachori and Totala (2012) explored the effect of leverage ratios on shareholders' return and market capitalization of automotive firms of Pithampur in India. Using the seven major automobile public corporations sample. The Simple linear regression technique was used to judge the effect of leverage ratios on shareholders' return and market capitalization. Adopting secondary data, the study showed that leverage measures does not significantly influence shareholder's return and market capitalization. The study further avowed that other non-quantitative factors which may help to annul the influence of financial leverage on shareholders return; factors like recession, saturation of auto industry, competition and government policy etc.

The study by Acheampong et al. (2014) examined the effect of financial leverage and stock returns. The study adopted the Ordinary Least Square (OLS) regression methods examine the relationship between financial leverage variables and stock return with five corporations operating in the manufacturing sector as sample. Adopting average monthly stock prices of the selected stocks between 2006-2010 for Unilever, Pioneer Kitchenware, PZ Cussions, Aluworks and Camelot. The study established a negative and significant relationship between leverage variables and stock return. However, at the individual firm level the relationship was not stable. Four out of the five selected companies had associated leverage coefficients to be negative. Only one (Pioneer Kitchenware) had positive leverage coefficient. The study also found the relationship between Size and stock returns to be positive and significant. The size effect within the manufacturing sector was however very limited.

Barasa (2012) researched on the effect of Leverage on Stock Returns using companies listed on the Nairobi Securities Exchange. The study used debt equity ratio, interest cover and total debt ration as independent ratio. While

Tobin Q's measure was used as the dependent variable. The ordinary least square regression method was adopted for the study. The study mentioned that the investible properties of a firm can be procured either by raising the owner claims or creditors' claims. The owners claim is increased by raising funds through issuing ordinary shares or by retaining earnings. Correspondingly, creditors' claims rises through borrowing. The Capital Structure of an enterprise influences the shareholders return and also risk. Financial Leverage, that is, the use of fixed-charges sources of funds such as debt and preference shares, has particular implications on shareholders return. The results of the study showed that leverage has a negative and significant effect in explaining the stock returns of a company

The study by Khedkar (2015) accessed the relationship between Financial Leverage and Return of Investment, Operating Leverage and Return on Investment, and Combined Leverage and Return on Investment, for Dr. Reddy's Laboratories, the pharmaceutical firm having the highest sales turnover for the financial year 2013-14. In an attempt to understand decisions made by Dr. Reddy's Laboratories with regards to its usage of asset and leverage administration and thus, examined the effect of these actions on the Shareholder's earnings and the Earnings before Interest and Taxes. Ratio analysis and correlation analysis were deployed for the study. Total Asset Turnover Ratio, Quick Ratio, Current Ratio, Return on Investment and Debt to Equity Ratio were analyzed to understand the financial performance of Dr. Reddy's Laboratories. The study revealed that, the degree of operating leverage is significant negatively correlated with the Return on investment

Hull (2009) did a study to know, whether stock value oscillations is influenced by how an enterprise changes its leverage ratios. Using the ordinary least square technique, the study revealed, that during earnings declaration period stock returns for firms moving "away from" expected industrial return significantly more negative than returns for firms moving "closer to" expected industrial return. The finding of the study is consistent with optimal capital structure theory, if industrial average debt-to-equity ratios are realistic estimates of wealth-maximizing leverage ratios.

Matemilola et al. (2013) investigated the relationship between leverage and managerial efficiency and shareholders' return. The analysis showed that both managerial efficiency factor and leverage factor have a positive effect on

shareholders' return. Therefore, the work avowed that leverage and managerial efficiency be priced into equity valuation. The study developed a scale to gauge of managerial efficiency using the upper-echelon theory of the management to explain how managerial efficiency relate to shareholders' return.

III. RESEARCH METHODOLOGY

1. Research Design

This research study focused on the relationship between leverage ratios and stock returns of deposit money banks in Nigeria. For the purpose of this research, the quasi-experimental research design was adopted.

2. Population and Sample

The population of this study comprises the nineteen (19) deposit money banks in Nigeria with international and national license as published in the Central Bank of Nigeria website as at 30 September, 2021. The sample was selected according to data availability criteria. Hence, twelve (12) listed deposit money banks represents the sample size for this study for a twelve (12) years period; from 2011-2022. The twelve (12) years period is chosen, taking cognizance of the post consolidation in the Nigerian banking sector and data availability, in order to have a fairly, reasonable, reliable, and up-to-date financial data and also to keep the range of data within the short-term data, in order to avoid cross sectional dependence associated with long-term data-above 20year period, in panel analysis (Torres-Reyna, 2007; Maeso-Fernandez, et al., 2004).

Sample of the Study

S/N	Company/Firm
1.	Access Bank Plc
2.	Fidelity Bank Plc
3.	First Bank of Nigeria Plc
4.	First City Monument Bank Plc
5.	Gurantee Trust Bank Plc
6.	Stanbic IBTC Bank Plc
7.	Sterling Bank Plc
8.	United Bank for Africa Plc
9.	Union Bank of Nigeria Plc

10. Unity Bank Plc
11. Wema Bank Plc
12. Zenith Bank Plc

3. Sources and Nature of Data

This study employed secondary panel data, sourced from the publications of the Nigeria Exchange Limited (NGX) and the annual report and accounts of the sampled deposit money banks as well as their respective notes.

4. Model Specification

The model for the estimation of the relationship between leverage ratios and stock returns of deposit money banks in Nigeria is stated below.

$$SR = f(TDA, TDE) \qquad \text{Model 1}$$

Where;

SR = Stock Return

TDA= Total Debt to Asset Ratio

TDE = Total Debt to Equity Ratio

$$SR_{it} = \beta_o + \beta_1 TDA_{it} + \beta_2 TDE_{it} + Eit \qquad \text{Equations 1}$$

β_o = Intercept

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$ = Coefficient of independent variables

i = cross section

t = Time

E = Error term

Apiori expectation: $\beta_1, \beta_2 < 0$

5. Measurements of Variables

Dependent Variable

In this study, the dependent variable (in all of the five models) is stock returns. It is the return expected by an investor in stock. It is the combination of dividend and capital gain/loss.

In this study;

$$\text{Stock Return} = \text{Dividend} + \text{Capital gain/loss} = \frac{\text{Div.} + (P_1 - P_0)}{P_{0\,1}} \times 100$$

Where:

Div. = Dividend

P_1 = Current market price of share

P_0 = Previous market price of share (immediate past year)

Independent Variables

Leverage Ratios: Measures the ability of a firm to meet its long-term obligations;

Variables	*Measurement*	*Operationalization*
TDA	Debt to asset in percentage	Computed as total liabilities divided by total asset
TDE	Debt to total equity in percentage	Computed as total liabilities divided by total equity

6. Method of Data Analysis

This study used Panel multiple regression model to test the significance of the relationship between the independent variables and the dependent variable. Also, the study conducted a descriptive test for each model variables, to ascertain the nature of the data, correlation between the independent variables and the dependent variable were ascertained. This study employed the Orthogonal Deviation option of the Generalized Methods and Moment (GMM) on the panel data collected for this study, to test the significance of the relationship between the independent variables and the dependent variable and to test stated hypothesis. This option of analysis was adopted because "GMM estimator of the model transformed by the forward orthogonal deviation tends to work better than that transformed by the first difference" (Hayakkawa, 2009). Additionally, Sarafidis and Robertson (2006) concluded that orthogonal deviations are more robust to small samples sizes and can handle fewer observations more efficiently.

Decision rule: Decision is based on the P-value of independent variables. P-values ≥ 0.05 indicate the independent variable have no significant relationship with the dependent variable. While, P-values < 0.05 is indicative of a significant relationship with the dependent variable**.**

IV. ANALYSIS OF DATA AND DISCUSSION OF FINDINGS

1. Analysis of Data

Descriptive statistics of variables is used to explain the data collated and to condense and describe variables under investigation. The descriptive statistics of variables used for the study of the relationship between leverage ratios and stock returns of deposit money banks in Nigeria from 2011 to 2022 is presented in Table 1

Table 1 showed that stock returns have a mean value of 25.01, with a standard deviation of 54.77 while, the minimum and maximum values are -55.8 and 227.00, respectively. The table also show that, the mean value of total debt/asset ratio is 0.9111 with a standard deviation of .245 and minimum and maximum values of -0.144 and 254.75 respectively, total debt equity ratio has a mean value of 8.48 standard deviation of 15.83 as well as minimum and maximum values of -2.95 and 191.21 respectively.

2. Correlation Analysis

Table 2. show the correlation matrix of the dependent and independent variables. From the table it can be seen total debt asset ratio is negatively correlated with stock returns of deposit money banks in Nigeria. While total debt equity ratio is positively correlated with stock returns of deposit money banks in Nigeria.

3. Regression Result

The result of the orthogonal deviations estimation revealed that, the model is correctly specified as shown by the probability of J-statistics the value of 0.456, thus, showing that the instruments employed in the model are valid and the sample moments are close to the theoretical (population) moments. Lagged value of stock returns is negatively and insignificantly related to the current value of stock returns of deposit money banks with a coefficient of -0.0945 showing that a-dynamic unit change in previous stock returns can cause 0. 0945-unit decrease in current stock returns.

Total debt/asset ratio (TDA) have positive and significant relationship with stock returns of deposit banks in Nigeria in accordance with theoretical expectations, with a probability value of 0.0024 and a coefficient value of 41.61, indicating that a unit change in TDA can cause a 41.61-unit upward-change in

stock returns of deposit money banks in Nigeria. While, total debt/equity ratio (TDE) have negative and non-significant relationship with stock returns of deposit money banks in Nigeria, with a coefficient value of -0.5695, revealing that a unit movement in TDE can cause a 0.5695 downward variation in stock returns of deposit money banks in Nigeria.

4. Discussion of Findings

The result of the orthogonal deviation estimation revealed that, total debt/asset ratio positive and significant relationship with stock returns against theoretical expectations. While, total debt/equity ratio have negative and no-significant relationship with stock returns of deposit money banks in Nigeria. These findings could have been caused by the underdeveloped nature of the Nigerian economy, which have affected capital market efficiency. That is, the ability of the capital market as anchored by the Nigeria stock exchange to reflect financial statement data on the prices of securities traded in the capital market.

Furthermore, the findings of this study that revealed a negative relationship between total debt/equity ratio and stock returns of deposit money banks in Nigeria is corroborated by Fama and French (1992) that there is a negative relationship between book leverage and stock returns of firms listed in NYSE, AMNEX and NASDAQ. Also, the study of Adamnia et al. (2010) affirmed a negative relationship between leverage and stock returns due to risk associated with the use of leverage in firm operations. In Pakistan, Reman et al. (2016) found a negative relationship between leverage ratios and stock returns of non-financial firms. Moreover, the positive relationship between total debt/asset ratio and stock returns of deposit money banks in Nigeria agrees with the findings of Bhadari (1988) that there is a positive relationship between leverage and stock returns if beta and firm size are controlled. The study of Matemilola et al. (2012) posited that long-term debt to asset ratio and long-term debt to equity ratio are positively related to stock returns in South Africa. The result of this study is at agree with the studies of Acheampong et al. 2014; Medywati and Yunato (2016) in Indonesia; Brasa (2004) in Kenya, that reiterated that leverage ratios can significantly influence stock prices and stock returns. Notably, the findings of this study as represented by a mixture of positive relationship (total debt/asset ratio) and negative relationship of (total debt/equity ratio) with stock returns is corroborated by the study of Ligocka (2018) in Pragua and

Polish economies which showed that, the relationship between leverage ratio and stock return and/or prices, as well as the significant level of influence is sporadic depending on the country and/or company. The sporadic relationships and influences may be attributable to several factors like; the variance between book value of leverage and market value of leverage, investment choices of firms, level of capital market efficiency of various economies, competition, government policies and regulations etc.

V. SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

1. Summary of Findings

The analyzed data showed that, debt/asset ratio has a positive significant relationship with stock returns, while debt/equity ratio has negative and no significant relationship with stock returns. Hence, there is a significant relationship between leverage ratios and stock returns of listed deposit money banks in Nigeria. The positive relationship as exhibited by debt asset ratio confirm the asset transformation process of bank operations, especially as deposit transformed to loan becomes the assets of banks. While, the indirect relationship as shown by debt equity ratio revealed the danger posed by increase in debt in relation to equity, if debt is not linked to investment in viable assets.

2. Conclusion

Financial ratios are fundamental means of analyzing firms' ability to survive and earn profit for her owners, and the owners of firms determine their earnings via stock returns. However, for financial statement data to transform to good stock returns the capital market of a nation must be efficient enough to reflect such financial statement information(s) in the prices of traded securities/stocks. The findings of this study revealed that, total debt asset ratio has a positive significant influence on stock returns of deposit money banks in Nigeria. Thus, suggesting that the Nigerian Capital Market is moderately-efficient (semi-strong) in her operations to reflect financial statements data in the prices of securities traded in the capital market. Hence, investments in the Nigerian Capital Market may not just be based on intuition of market players and/or technical analytical considerations, but include company fundamentals in determination of stock prices and ultimately stock returns.

3. Recommendations

Based on the findings from analyzed data, the study recommends that: Deposit Money Banks should invest created liabilities in verified-profitable choices of assets, to generate "above-cost" returns and ensure favourable leverage; Managers of firm as agents should be thorough (maintain ethics) in the report of financial statement information. While, the Nigerian Security and Exchange Commission should enforce timely disclosure with electronic/ information technology platforms, such that new information from financial statements, that may influence stock value is received by all stakeholders at about the same time, causing almost instantaneous revaluations; and Managers compensation should be structured based on stock return expectations, to enable the synchronization of financial ratios and stock returns.

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Table 1: Descriptive Statistics

	SR	*TDA*	*TDE*
Mean	25.01627	0.911140	8.487099
Median	14.15000	0.874620	6.800036
Maximum	227.0000	2.547496	191.2096
Minimum	-55.80000	-0.144045	-2.951338
Std. Dev.	54.77199	0.244978	15.83435
Skewness	1.279517	3.822630	10.79852
Kurtosis	4.905465	28.00665	124.9318
Jarque-Bera	61.07674	4102.695	92002.76
Probability	0.000000	0.000000	0.000000
Sum	3602.343	131.2042	1222.142
Sum Sq. Dev.	428995.9	8.582036	35853.91
Observations	144	144	144

Table 2: Correlation Analysis

	SR	TDA	**TDE**
SR	1.000000	0.056108	-0.040539
TDA	0.056108	1.000000	-0.038880
TDE	-0.040539	-0.038880	1.000000

Table 3: Regression Result

Orthogonal Deviations Estimations
Dependent Variable: SR

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SR (-1)	-0.094575	0.089244	-1.059729	0.2915
TDA	41.61475	13.41848	3.101301	0.0024
TDE	-0.569539	0.325568	-1.749372	0.0828

Mean dependent var	1.224065	S.D. dependent var	55.29010		
S.E. of regression	54.99993	Sum squared resid	353924.1		
J-statistic	8.802369	Instrument rank	12		
Prob(J-statistic)	0.455714				