

Financial Indicators and Stock Market Performance in Nigeria

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doi: <https://doi.org/10.37745/gjahss.2013/vol11n55369>

Published: May 30, 2023

Citation: Odey, F.I, Owan, J.O and Owan, J.N. (2023) Financial Indicators and Stock Market Performance in Nigeria, *Global Journal of Arts, Humanities and Social Sciences*, Vol.11, No.5, pp.53-69

ABSTRACT: *This study examined financial indicators and stock market performance in Nigeria. The low performance of the stock market has been attributed to so many factors, ranging from financial, macroeconomic to political and institutional. Hence, the study examined the relationship between financial indicators and stock market performance, using the econometric analytical technique. Annual time series data sourced from the Central Bank of Nigeria and Nigerian Stock Exchange were employed. Stock market performance was measured by all-share index while financial indicators were represented by stock market profitability, liquidity and efficiency. The bound testing and Autoregressive Distributed Lag model estimation techniques were employed for the analysis. It was revealed that a long run relationship exists among the variables in the estimated model. A positive relationship exists between market profitability, liquidity, efficiency and stock market performance in Nigeria with coefficients of 58.98, 879.58 and 5152.51, respectively. The implication of the findings is that market profitability, market liquidity and market efficiency have positive impact on stock market performance in Nigeria. Hence, the study recommends that; there is need for implementing policy such as good corporate governance that will maximize profit for investors in the market, make it attractive and hence deepen the Nigerian stock exchange market; the provision of windows for firms to raise cash through issuance of new shares, debentures, loans and deposits, when needed and enhance the ability of the firms to convert assets to cash to pay its current liabilities and its debt capacity; while a high trading volume should be maintained to enhance efficiency of the Nigerian capital market.*

KEYWORDS: financial indicators, stock market performance, ARDL, Nigeria

INTRODUCTION

The major objective of shareholders in any corporate entity is to obtain capital gains from the increased value of shares by investing in them. In order to maximize profit, investors can benefit from financial ratios and it must be included in the decision-making process on determining the right investment strategy. Profitability ratios are one of the financial ratios based on financial statements that can be indicative factors for investors in the preference of stocks to invest (Ferrer and Tang, 2016; Alaagam, 2019). According to Guoyi and Renzhong (2009), the volatility of share prices of firms has a significant impact on the direction of the stock market performance. The theories of financial management agreed unanimously that maximizing the wealth of shareholders by increasing the stock prices is the main objective to be followed by company's management (Shawer & Al-Ajlouni, 2018). Stock price is a reflection of a firm's performance, and companies with a good performance supposedly will have a good demand on its stock, hence boost the price and the overall development of the asset market. The performance of a firm can be represented by the performance of its share prices, as they are good indicators of how well the firm is doing (Sekirin, 2010; Norazidah, Mahmood & Fathiyah, 2013; Abdullahi & Fakunmoju, 2019).

The relationship between stock prices and financial indicators has attracted considerable attention in economics and finance literature. The dynamics of stock liquidity and how it can influence the return of stocks have elicited a new level of interest in modern finance and economics research. The trading of a security to prevent loss or to make profit in a timely manner is often referred to as stock liquidity. Stock liquidity has been considered as a significant factor in conventional asset pricing models based on the assumption that fundamental indicators can be used to explain the returns on stock (Boloupremo, 2020; Ikoku (2007). Stock price liquidity describes the degree to which financial asset or security can be quickly purchased or sold on the market without affecting the asset's price. Liquidity can be measured with the help of various liquidity ratios i.e., current ratio and quick ratio. Stock market liquidity plays an important role in measuring stock market growth and performance (Singha, Guptab & Sharma, 2015; Abdullahi & Fakunmoju, 2019; Watson and Head, 2007; Mishra, Mishra & Mishra, 2020; Pagano, 1993).

Statement of the problem

The rate of economic growth and financial strength of any nation is inextricably linked to the sophistication of its financial market and specifically its capital market performance. Virile financial markets assist the nations of the world to muster needed financial resources and skills for growth and development. An efficient capital market reduces the transaction costs of trading financial assets and thereby paves the way for the emergence of an optimal ownership structure (Ewah, Esang and Bassegy, 2009). On the other hand, if the capital markets are not efficient, the public offering largely disappears as a result of high transaction costs or the uncertainty of getting a fair price in the stock market. Thus, inefficient capital markets may reduce the incentive to enter

new ventures and reducing overall long-term productivity of the economy (Mishra, Mishra and Mishra, 2020).

In spite of the vital role played by the stock market in the overall economic growth of an economy, the stock market in Nigeria is still performing below expectations. This low performance of the stock market has been attributed to so many factors, ranging from financial, macroeconomic to political and institutional. On the macroeconomic front, macroeconomic instability, represented by inflation rate has been known to influence the performance of the stock market negatively thereby hindering the level of profitability, liquidity and efficiency. This is so because, a rise in inflation rate will provide less incentives for companies and investors in the stock market to invest as price hike tends to wipe off some margin of returns on investment. High rates of inflation also increase the cost of living and a shift of resources from investments to consumption. This leads to a fall in demand for market instruments which lead to reduction in the volume of stock traded and market capitalization. Hence, this study intends to investigate the impact of financial indicators on stock market performance in Nigeria.

Objectives of the study

The main objective of this study is to investigate the impact of financial indicators on stock market performance in Nigeria. The specific objectives are to:

- i. examine the extent to which stock market profitability impacts on stock market performance in Nigeria.
- ii. Assess the extent of the effect of stock market liquidity on stock market performance in Nigeria.
- iii. Investigate the extent of the relationship between stock market efficiency and stock market performance in Nigeria.

REVIEW OF RELATED LITERATURE

Conceptual Review

Measures of stock market performance

Several stock market indicators have been used in the stock market to measure its performance. These performance indicators include:

Market Capitalization: This is the aggregate valuation of the company based on its current share price and the total number of outstanding stocks. Market capitalization is one of the most important characteristics that help the investor determine the returns and the risk in the share. It also helps the investors choose the stock that can meet their risk and diversification criterion. It is calculated by multiplying the current market price of the company's share with the total outstanding shares of the company.

All Share Index: A market index is a quick measure to judge the overall direction of the market and the scope of its movements. All share index is a statistical parameter to reflect the composite value of a market characteristic. When it is the price, we have a price index, which is an attempt to represent the overall price performance of the stock market. It is calculated on a daily basis, showing how the prices have moved.

Stock Turnover Ratio: This ratio measures how often shares change hands. Turnover ratio is the value of domestic shares traded divided by their market capitalization. The turnover ratio of a stock is therefore a measure of sellers versus buyers of a particular stock. The value is annualized by multiplying the monthly average by 12. The higher the stock turnover ratio, the more liquid the stock is and vice versa.

Price to Earnings Ratios (PER): These are ratios of share prices to earnings. The prices to earnings ratio of a stock are equal to the price of a share of the stock divided by per share earnings of the stock. The price to earnings ratio (PER) is the most widely used method for determining whether shares are “correctly” valued in relation to one another. But the PER does not in itself indicate whether the share is a bargain. The PER depends on the market’s perception of the risk and future growth in earnings. A company with a low PER indicates that the market perceives it as lower risk or lower growth or both as compared to a company with a higher PER.

Volume of Stock Traded: This is simply the number of shares that have been bought and sold within a specific period of time, and does not require calculation beyond mere counting. A common time frame used when looking at the changes in a stock's trading volume is per day, also called the daily trading volume of a stock. Trading volumes also are expressed frequently as an average of trading activity per day. It can also be used to measure the liquidity of a stock, or the ease with which it can be bought and sold. A low trading volume means that a stock is bought and sold infrequently. A high trading volume indicates that a stock has high liquidity and may be bought or sold easily.

THEORETICAL FRAMEWORK

Efficient Market Hypothesis (EMH)

The theoretical explanation on the nexus between stock market performance and its determinants is analyzed using Efficient Market Hypothesis (EMH) developed by Fama (1965). According to EMH, financial markets are efficient or prices on traded assets have already reflected all known information and therefore are unbiased because they represent the collective beliefs of all investors about future prospects concerning profitability, liquidity and efficiency of the market.

The Efficient Market Hypothesis (EMH) states that at any point in time, prices reflect all available information. This implies that no amount of data mining can predict future prices. Furthermore, an analysis of past or current data cannot identify undervalued stocks. Applying this to the securities

markets, the EMH implies that no trading mechanism can consistently beat the market. Hence, for a given level of risk, speculators cannot earn supernormal returns. Similarly, no betting system can consistently earn super normal returns.

There are varying degrees of market efficiency, with Fama (1965) providing the traditional framework through which the EMH is examined. The weak form simply states that all past information is reflected in current prices. The semi-strong form states that all publicly available information is incorporated in prices, while the strong form, an extension of the first two, states that all information, including insider information, is included in share prices. In practice, market efficiency is categorized by the strength of the efficiency that can be established with respect to a particular information set. Information sets can be categorized into: past price and volume of information; public information; and public and private information. The efficient market hypothesis exists in three main versions, namely weak form of efficient market hypothesis, semi-strong market hypothesis and strong market hypothesis.

Empirical Studies

Borhan, *et al* (2012) examined the impact of financial ratios on the financial performance of a chemical company by examining several ratios such as current ratio (CR) and quick ratio (QR) representing liquidity ratios; debt ratio (DR) and debt equity ratio (DTER) representing leverage ratios, while operating profit margin (OPM) and net profit margin (NPM) represented profitability ratios. The findings showed that CR, QR, DR and NPM have positive relationship while DTER and OPM have negative relationship with the company's financial performance. Among the six ratios, CR, DR and NPM show the highest significant impact on the company's performance.

Vardar (2013) investigated the link between the cost and profit efficiency scores of the banks in the Central and Eastern European Countries as well as Turkey along with their stock price performance to determine the efficiency scores as priced in bank stocks. Changes in efficiency scores of banks, obtained from Stochastic Frontier Analysis (SFA) model, are regressed against their stock price performance by applying fixed effects panel regression technique. Empirical results indicate that changes in profit efficiency estimates have a positive and significant impact on stock returns. However, a significant but negative relationship is found between changes in cost efficiency and stock returns.

Amir and Seyed (2015) examined the relationship between financial ratios and stock prices in the food groups, sugar, agricultural machinery and equipment and related services to companies listed on the Stock Exchange. The regression analysis was carried out using the classical ordinary least squares. Financial variables including liquidity ratios (current ratio), the activity ratio (asset turnover), the profitability (rate of return on assets and return on equity), financial leverage (debt) and equity prices in agriculture-related industries were utilized. The results of the financial ratio and stock price dependent on agriculture indicate that the debt ratio, current ratio and return on assets ratio have a significant effect on stock prices.

Al-Nimer and Alslihat (2015) examined the effect of profitability ratio on market capitalization in the Jordanian insurance companies listed in Amman stock exchange (ASE) by examining time series data collected over a period of four years from (2010-2013) which included 25 companies and utilizing content analysis to extract the data from the company's annual reports. The finding indicated that there is an effect of return on investment (ROI) upon market capitalization for the companies operating in the insurance sector listed in the ASE.

Heryanto (2016) investigated the impact of liquidity and profitability of bank stock returns as listed in Indonesia Stock Exchange. The population of the study was the all-banking companies listed in the stock exchange in the period 2009 to 2010. Of the entire population of 29 listed banks, the number of samples obtained was 26 banks. Data analysis technique used was multiple linear regression model, and the results of the study showed that liquidity and profitability have significant effects on stock returns.

Kahuthu (2017) investigated the effect of stock market liquidity on stock returns of companies listed on Nairobi Securities Exchange from 2012-2016. The study looked at both the width and depth aspects of liquidity measured by bid-ask spread and turnover rate respectively. The study adopted a quantitative research design with the population of the study consisting of all the 64 firms listed on the Nairobi Securities Exchange and the 23 trading participants registered by the CMA. Purposive sampling was adopted and panel regression model was used to analyze data from 50 companies listed on the NSE selected. Descriptive analysis was used to analyze data on perception of market participants on liquidity collected through questionnaires. Empirical findings show that market depth was found to be insignificant to stock returns while market width was found to be significant. On the other hand, most market participants perceived both market width and depth to be significant to stock returns but only to a moderate extent.

Bayrakdaroglu *et al.*, (2017) examined the nexus between stock price and firms' profitability using panel data regression among stock prices of 87 firms in ISE100. Profitability ratios such as gross profit margin, operating profit margin, net profit margin, return on asset and return on equity were used. The result showed that there was a positive linear relationship between the net profit margin of companies and their stock prices. The study recommended taking the net profit margin into consideration when making investment decision.

Alaagam (2019) examined the relationship between profitability ratios; measured by net profit margin, return on assets, and return on equity, and the stock market prices of listed banks in Saudi Arabia. The study conducted a panel unit root test and was non-stationary at levels with constant and with time trend for some variables, and they became stationary in the first difference for all variables. The Autoregressive Distributed Lag (ARDL) model was used and the results showed that there is no long-term relationship between profitability and stock prices, while there is a positive significant association between return on assets and stock prices in short-term.

Abdullahi and Fakunmoju (2019) examined the effect of market liquidity, inflation, and exchange rates on stock return in Nigerian Stock Exchange market. The researchers used the Auto-regressive Distributive Lag (ARDL) bound test method of analysis within the period of twenty-one years. Findings revealed that in the short run, stock turnover, trading volume, exchange and inflation rates have affected stock return positively and significantly. In the long run, market turnover has a positive effect. However, inflation and exchange rates have affected stock return negatively and significantly. Then, trading volume has a negative but insignificant effect on stock return.

Boloupremo (2020) investigated the relationship between liquidity and stock returns by examining the influence of market liquidity on stock returns in the Nigerian Stock exchange. Vector auto-regression model was employed for the period 1985-2015. Empirical results suggest that the higher the market liquidity (volume of trading and turnover), the higher the stock index returns. Thus, establishing a positive relationship between liquidity and stock returns of firms listed on the Nigerian stock market during the period examined after controlling for market size.

Nguyen, Hai and Nguyen (2021) explored the influence of the COVID-19 outbreak and the government's disease control measures on the stock returns and liquidity of Vietnam-listed companies in the financial services sector. A panel data regression analysis was conducted and findings revealed that the daily growth in the total number of confirmed cases caused by COVID-19 has significant negative effects on the stock market returns and liquidity. Mohammad and Rounagh (2022) examined market efficiency and fractal feature of NASDAQ stock exchange, using time series modeling and forecasting of stock index with ARMA-GARCH model. The findings show that ARMA-GARCH model can forecast very well at the error level of 1 percent. Also, the result shows that a positive correlation and significant relationship exists between the stock price indexes over time and NASDAQ stock exchange is efficient market and non-fractal market

Most of the reviewed studies on the impact of financial indicators on stock market performance did not directly discuss on the collective effect of financial indicators on stock market performance. Rather they dwell basically on individual effect of these variables on stock returns using individual variables such as profitability, liquidity and efficiency. The scope of most of the study ended before 2018. The findings of the work must have been taken by events knowing full well that there have been series of new policies which the new administration in Nigeria have introduced that may have impacted on the economy, hence the need to extend the scope to 2021 to capture the most recent issues such as the COVID-19 pandemic and its effect on stock market performance in Nigeria.

METHODOLOGY

Research Design

The design adopted in this study was an *ex post facto* (after the fact) design. This is because the events had already taken place before the investigation is carried out. This study used some selected variables which include the index of stock market profitability, liquidity and efficiency as independent variables. The stock market performance which is the dependent variable is measured using the all-share index. Exchange rate and inflation rate were used as the control variables. The analytical tools and techniques employed include unit root tests, and autoregressive distributive lag model also known as bound testing cointegration.

Model Specification

The model for this study is anchored on the efficient market hypothesis which states that prices on publicly traded assets reflect both past and current publicly available information on the assets' profitability, liquidity and efficiency. The model for this study in its functional form is expressed as follows:

$$ASI = f(PROF, LIQ, EFF, EXCHR, INFLA, MKTGDP) \quad 1$$

The equation in 1 can also be expressed in logarithmic form as follows:

$$ASI_{it} = \beta_0 + \beta_1 PROF_t + \beta_2 LIQ_t + \beta_3 EFF_t + \beta_4 EXCHR_t + \beta_5 INFLA_t + \beta_6 MKTGDP_t + U_t \quad 2$$

Where: ASI = All share index, measuring stock market performance in Nigeria (in basis point), PROF = Profitability, measured by return on asset (ROA), LIQ = Liquidity, measured by stock turnover ratio or trading volume; EFF = Efficiency, measured by efficiency scores of the firms; EXCHR = Exchange rate (Units of naira per US dollar); INFLA = Inflation rate, measured in percentage; MKTGDP = The ratio of market capitalization to gross domestic product (measuring capital market deepening); U_t = Stochastic error terms; t = time dimension

The *a priori* expectations are: $\beta_0, \beta_1, \beta_2, \beta_3, \beta_4, \beta_6 > 0$; $\beta_5 < 0$.

The data for this research work were obtained from the Nigeria Stock Exchange, Central Bank of Nigeria and Securities and Exchange Commission.

Estimation Procedures

The time series properties of the data were examined in order to avoid spurious result emanating from the non-stationarity of the data and to analyze the dynamic structure of the relationship. The estimation begins with a unit root test to confirm the stationarity state of the variables that enter the model using Augmented Dickey Fuller (ADF).

Consequently, conducting the tests with and devoid of a deterministic trend (t) for all the series and comparing P-values with the critical values at 5% significance level, we observed that the series have mixed order of integration and that led us to the application of Auto-regressive distributed lag (ARDL) model. Meanwhile, to determine the short-run and long-run coefficients

of the series, the ARDL model is applied in the analysis.

ANALYSIS AND DISCUSSION OF RESULTS

In order to investigate the relationship between financial indicators and stock market performance in Nigeria, annual data obtained from CBN were subjected to multiple regression analysis using autoregressive distribute model and Granger Causality test

Unit Root Test

In other to test for the presence or absence of unit root in the data used for the empirical analysis, Augmented Dickey-Fuller (ADF) test was employed and the test result is as presented below:

Table 1: Augmented Dickey-Fuller (ADF) Unit Root Test (at level)

Series	ADF Statistic	5 % Critical Value	P-Values	Order of Integration	Remarks
ASI	-0.798234	-2.951125	0.8069	I(1)	Not Stationary
LIQ	-3.458538	-2.945842	0.0000	1(0)	Stationary
EXCHR	-2.065453	-2.945842	0.9998	1(1)	Not Stationary
INFL	-3.409578	-2.967767	0.0002	1(0)	Stationary
EFF	-2.717304	-2.945842	0.0810	I(1)	Not Stationary
MKTGDP	-1.660234	-2.945842	0.4423	I(1)	Not Stationary
PROF	-3.747455	-2.948404	0.0000	1(0)	Stationary

Source: Researcher's Compilation from Eview 9

Table 2: Augmented Dickey-Fuller (ADF) Unit Root Test (at first difference)

Series	ADF Statistic	5 % Critical Value	P-Values	Order of Integration	Remarks
ASI	-6.577858	-2.951125	0.0000	I(1)	Stationary
LIQ	-3.458538	-2.945842	0.0000	1(0)	Stationary
EXCHR	-3.300371	-2.948404	0.0025	1(1)	Stationary
INFL	-3.409578	-2.967767	0.0002	1(0)	Stationary
EFF	-6.112890	-2.948404	0.0000	1(1)	Stationary
MKTGDP	-6.710173	-2.948404	0.0000	1(1)	Stationary
PROF	-3.747455	-2.948404	0.0000	1(0)	Stationary

Source: Researcher's Compilation from Eview 9

The characteristic, validity and reliability of the data employed were established using the ADF test. The Augmented Dickey Fuller unit root test was conducted to examine the stationarity

condition of the variables. As indicated in table 1 and 2 above, LIQ, PROF and INFL were stationary at levels whereas; ASI, EFF, EXCHR and MKTGDP became stationary after the first difference. This unit root test result therefore revealed the existence of mixed order of integration (I (0) and I (1) among the variables of the study. The mixed order of integration from the unit root test results implies the possibility of long-run relationship among the variables of the study, though further investigations using ARDL-Bound test result will reveal if actually long run relationship exist among the variables of the study.

ARDL Bounds Test

The bound test is used to examine whether the variables are co integrated. The variables are said to be co integrated if the F-statistics is greater than the critical values and otherwise if it is less. The result of Bounds test is presented in the Table 3 as follows:

Table 3: ARDL Bounds Test Result.

Test Statistic	Value	K
F-statistic	5.944963	6
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	2.12	3.23
5%	2.45	3.61
2.5%	2.75	3.99
1%	3.15	4.43

Source: Researcher's Compilation from Eview 9

From the bound testing result reported in Table 3, long run relationship exists amongst the variables in the estimated equation, given that the value of the F-statistic (5.94) is greater than the critical value at five per cent level in both the upper (3.61) and the lower bounds (2.45). Therefore, the null hypothesis of absence of co-integration is rejected, while the study proceeds to estimate the long run coefficient of the equation.

Long Run Results

The long run relationship between financial indicators and stock market performance in Nigeria is accessed by the lower part of the result of Autoregressive Distributed Lagged (ARDL). The result is presented as follows in the Table 4 below:

Table 4: Long Run Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PROF	149.512766	61.627526	2.426071	0.0275
LIQ	1895.31782	378.54120	5.006900	0.0001
EFF	409.027944	2352.7563	0.173851	0.8642
EXCHR	35.7566660	12.908287	2.770055	0.0137
INFL	183.815498	63.223933	2.907372	0.0103
MKTGDP	979.845434	161.56573	6.064686	0.0000
C	-17366.9980	3908.0848	-4.443864	0.0004

Source: Researcher's Compilation from Eview 9

The long run results of financial indicators and stock market performance in Nigeria is reported in table 4. From the results and in consonance with theoretical expectation, a positive relationship exists between market profitability and all-share index. The value of the coefficient of 149.51 percent implies that an increase in market profitability (PROF) by 1 percent will result in an increase in stock Market performance by 149.51 percent. The p-value indicates that PROF is statistically significant at the 5 percent alpha level. This simply means that the rate of profit maximization in the stock market has a significant impact on market performance in Nigeria in the long run.

Equally, a positive relationship exists between market liquidity and all-share index and is statistically significant. That is a 1 per cent increase in market liquidity will lead to an increase in stock market performance by 1895.31 percent, *ceteris paribus*. The relationship between market efficiency (EFF) and all-share index (ASI) is equally positive and consistent with a priori expectations. Therefore, a 1 per cent increase in market efficiency will lead to a rise in stock market performance by 409.02 percent.

The relationship between exchange rate (EXCHR) and all-share index is positive and statistically significant. Therefore, a 1 per cent increase exchange rate will lead to an increase in stock market performance in Nigeria by 35.75 percent. The relationship between inflation rate (INFL), which captures macroeconomic instability and all-share index is positive and statistically significant in the long run. This is inconsistent with economic theory. Hence, a 1 per cent increase in inflation rate will increase stock market performance by 183.81 percent. According to the long run results, the ratio of market capitalization to gross domestic product (MKTGDP) which measure capital market deepening has a positive and significant relationship with all-share index (ASI) in Nigeria in the long run. The magnitude of the coefficient shows that a 1 percent increase in market capitalization to gross domestic product in the long run will lead to a 979.84 percent rise in stock market performance, *ceteris paribus*.

Short-Run Results

The upper part of Autoregressive Distributed lagged (ARDL) model result shows the short-run relationship between the financial indicators and stock market performance in Nigeria. The estimate is significant if the p-value is less than 0.05 and insignificant if otherwise. The result is presented in Table 5 as follows:

Table 5: ARDL Short Run Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(PROF)	58.986578	59.779236	0.986740	0.3385
D(PROF(-1))	83.507804	77.993564	1.070701	0.3002
D(LIQ)	879.58614	332.54683	2.644999	0.0176
D(LIQ(-1))	-374.66064	201.63962	-1.858070	0.0817
D(EFF)	5152.5143	2748.4695	1.874685	0.0792
D(EFF(-1))	3971.2196	2241.1521	1.771954	0.0954
D(EXCHR)	70.047017	24.621958	2.844900	0.0117
D(INFL)	67.811191	42.323665	1.602205	0.1287
D(INFL(-1))	-135.23402	49.084148	-2.755147	0.0141
D(MKTGDP)	885.89702	105.91431	8.364280	0.0000
D(MKTGDP(-1))	604.21787	181.03716	3.337535	0.0042
ECM(-1)	-0.9293350	0.1744770	-5.326408	0.0001

R² = 0.947951; ADJ R² = 0.889397; F-statistic = 16.18914; DW = 2.421501

The short run results of financial indicators and stock market performance in Nigeria is reported in table 5. From the results and in consonance with theoretical expectation, a positive relationship exists between market profitability and all-share index at current and one period lag. The values of the coefficients of 58.98 and 83.50 percent implies that an increase in market profitability (PROF) by 1 percent will result to increase in stock market performance by 58.94 and 83.50 percent at the current and one period lag, respectively. The p-value indicates that PROF is statistically insignificant at the 5 percent level. This simply means that the rate of profitability in the stock market has an insignificant impact on stock market performance in Nigeria in the short run.

Equally, a positive relationship exists between market liquidity and all-share index at the current period and is statistically significant, but became negative after one period lag. That is a 1 per cent increase in market liquidity will lead to an increase in stock market performance by 879.58 percent, but decrease by 374.66 percent after first period lag. The relationship between market efficiency (EFF) and all-share index (ASI) is equally positive and consistent with a priori expectations in the short at both current and first period lag. Therefore, a 1 per cent increase in market efficiency will lead to a rise in stock market performance by 5152.51 and 3971.21 percent, respectively. The relationship between exchange rate (EXCHR) and all-share index is positive and statistically

significant. Therefore, a 1 per cent increase exchange rate will lead to an increase in stock market performance in Nigeria by 70.04 percent in the short run.

The relationship between inflation rate (INFL) and all-share index is positive and statistically significant at current period, but became negative after first period in the short run. Hence, a 1 per cent increase in inflation rate will increase stock market performance by 67.81 percent at current period but decrease by 135.23 percent after first period lag. According to the short run results, the ratio of market capitalization to gross domestic product (MKTGDP) has a positive and significant relationship with all-share index (ASI) in Nigeria at both current and first period lag. The magnitude of the coefficient shows that a 1 percent increase in market capitalization to gross domestic product in the short run will lead to 885.89 and 604.21 percent rise in stock market performance respectively in both the current and one period lag.

The error correction mechanism (ECM) has the correct sign and size. The ECM coefficient of -0.929 indicates that, it takes about 93 percent for the short run disequilibrium to adjust to the long run equilibrium within the year. The t-statistic of -5.326 showed that the error correction term is statistically significant at 5 percent level of significance. The R-squared value of 0.94 and the value of R-squared adjusted of 0.889 indicates that about 89 percent of total variation in all-share index is explained by the various financial indicators, and only 11 percent was unexplained which may be accounted for by other factors not included in the model. The F-statistic of about 16.186 shows that all the variables in the model are together as a group statistically significant which means that the model has a good fit. The Durbin-Watson (D-W) statistic of 2.421 indicates no autocorrelation in the model.

Test of Hypotheses

Decision Rule: If the chosen level of significance (0.05) at 5% level of significance is greater than the p-value, the null hypothesis is rejected, otherwise, will be accepted. This is applicable to all the hypotheses in this research work.

Hypothesis One

Stock market profitability does not have any significant impact on stock market performance in Nigeria.

Comparing the short-run probability value of stock market profitability with the 5% level of significance in table 5 above, we observed that the PV of PROF which is 0.3385 is greater than 0.05. Therefore, since the probability value of the parameter estimate of PROF is greater than 0.05, the study conclude that stock market profitability has no significant impact on stock market performance in Nigeria in the short run.

In the long run (table 4), the probability value of stock market profitability (0.0275) is less than 0.05 at 5% level of significance, concluding that stock market profitability has significant impact

on stock market performance in the long run. The value of the coefficients in both the short run and long run were positive, implying that an increase in market profitability will result in an increase in stock market performance

Hypothesis Two

Stock market liquidity has no significant impact on stock market performance in Nigeria.

In the short run results (table 5), the probability value of stock market liquidity (0.0176) is less than 0.05 at 5% level of significance, concluding that stock market liquidity has significant impact on stock market performance in the short run.

In the long run (table 4), the probability value of stock market liquidity (0.0001) is less than 0.05 at 5% level of significance, concluding that stock market liquidity has significant impact on stock market performance in the long run. The value of the coefficients in both the short run and long run were positive and statistically significant, implying that an increase in market liquidity will result in an increase in stock market performance in Nigeria.

Hypothesis Three

Stock market efficiency has no significant impact on stock market performance in Nigeria.

In the short run results (table 5), the probability value of stock market efficiency (0.0792) is greater than 0.05 at 5% level of significance, concluding that stock market efficiency has insignificant impact on stock market performance in the short run.

In the long run (table 4), the probability value of stock market efficiency (.0.8642) is greater than 0.05 at 5% level of significance, concluding that stock market efficiency has insignificant impact on stock market performance in the long run. The positive coefficients of the variable in both the short and long run implies that an increase in market profitability will result in an increase in stock market performance.

DISCUSSION OF FINDINGS

The error correction mechanism (ECM) within the framework of Autoregressive Distributive Lag (ARDL) technique shows that the model has the ability to adjust to short term equilibrium. From the results, the coefficient of error correction term is -0.929. This reveals that 93 percent of the errors in the short run are corrected each year. The error correction coefficient in the estimated model met the three criteria for its acceptability given that it is negative, fractional and statistically significant. Consequently, the estimated result confirms the presence of long run relationship among the variables in the model. Woolbridge (2013) noted that a model with long run existence is assumed to have a causal relationship either a one-way causation or two-way causation (bidirectional relationship) to validate the assumption. The researcher not minding the fact that long run relationship has been found to exist among the variables proceeded to conduct a granger

causality test as shown in table 5. It was revealed that bidirectional causality was found between all-share index and profitability, liquidity, efficiency, exchange rate, inflation rate in the estimated model.

The value of the adjusted R-squared imply that the model has good fit as the independent variables have high explanatory powers. The Durbin-Watson Statistic connotes absence of autocorrelation in the estimated equation. The study, therefore, accepts the null hypotheses of no serial correlation in the model. This further implies that the error terms of different periods are not serially correlated.

From the tested hypothesis one, a positive and statistically significant relationship exists between market profitability and stock market performance. The outcome of the results is in consonance with the views of Al-Nimer and Alslihat (2015) who asserts that a positive effect between profitability measured by return on asset and market capitalization. From the second hypothesis tested, it was revealed that there is a positive and significant relationship between market liquidity and stock market performance. This finding is in tandem with the views of Boloupremo (2020) who opined that market liquidity has significant effects on stock returns in Nigeria. The nexus between market efficiency and stock market performance was positive but statistically insignificant. These findings corroborate the views of Mohammad and Rounagh (2022) who found a positive correlation between the stock price indexes over time and NASDAQ stock exchange. This implies that financial indicators impact on stock market performance in the long run. It is therefore important to note that in long run, market profitability, market liquidity, market efficiency, exchange rate and inflation rate and market capitalization to GDP ratio have affected stock market performance positively and significantly. In the short run, however, market liquidity and inflation rate have negative effects. Of course, the relationship is not surprising giving the fact that market profitability, liquidity and efficiency are the main drivers of stock market performance in the country over the years.

CONCLUSION AND RECOMMENDATIONS

The main objective of this study is to investigate the impact of financial indicators on stock market performance in Nigeria, while the specific objectives are to; examine the extent of the impact of stock market profitability on stock market performance in Nigeria, assess the extent of the effect of stock market liquidity on stock market performance in Nigeria, and lastly to investigate the extent of the relationship between stock market efficiency and stock market performance in Nigeria. The study employed ex-post facto research design using Nigeria's data obtained from the Central Bank of Nigeria and Nigerian Stock Exchange (1985-2021).\

In the light of the findings, the following recommendations are made: The positive effect of market profitability on all-share index revealed that there is need for implementing policies that maximize profit for investors in the market. This is because the drive for profit will make the market attractive

to investors and hence deepen the Nigerian stock exchange market. The positive effect of stock market liquidity on all-share index in Nigeria also suggests the provision of windows for firms to raise cash when needed. This will enhance the ability of the firms to convert assets to cash to pay its current liabilities and its debt capacity. The direct relationship between market efficiency and all-share index implies that the ratio of stock volume to market capitalization has improved over the years. A high trading volume should be maintained to enhance efficiency of the market.

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