

Stock Price Volatility And The Performance In The Nigerian Exchange Group (NGX)

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Abstract: *The study investigated the impact of stock price volatility and the performance in the Nigerian exchange group (NGX). The researcher adopted the ex-post facto research design with a population of the Nigerian Exchange Group with corresponding variables data sourced secondarily from 1986 to 2022. The study used interest rate, exchange rate and inflation rate as explanatory variables while market capitalization as dependent variable. The analytical methodologies used to assess the empirical hypotheses were descriptive statistics and ordinary least square regression. Market capitalization is negatively and insignificantly impacted by lending rates, whereas performance is significantly and positively impacted by exchange rates, according to the study. Furthermore, the Nigerian Exchange Group's market capitalization is positively affected by inflation, although to a negligible extent. The study concluded that investors, stock brokers, etc trading in the exchange market should be skeptical with the season of high exchange and inflation rate in investing and also advising potential client same on market volatility. Finally, the study recommended that individuals, companies and government trading in the Nigerian Exchange market should not make use of lending rate as part of the assumption to predict stock price movement either upward or downward.*

Keywords: *Stock Price Volatility, Performance, Nigerian Exchange Group.*

I. INTRODUCTION

The risk associated with the stock market is known as stock price volatility, and it includes all fluctuations in stock prices (Mgbame & Ikhatua, 2013). Based on the fundamentals, knowledge, and historical market practices, this suggests that stock price volatility is an unavoidable part of the market. The stability of the stock market is affected by fluctuations in stock values, which reflect broader market movements. If share price volatility continues beyond a particular threshold, it might lead to greater losses for shareholders and cast doubt on the overall health of the economy (Rudd, 2009). Among companies listed on the Nigerian Securities Exchange Market, stock prices might be explained by corporate performance. Stock prices rise as earnings rise because more investors are willing to put their money into the company (Al-Shubiri, 2010).

Furthermore, high stock price volatility can also result in increased risk for investors. Investors may perceive higher volatility as a sign of increased uncertainty and potential losses. Consequently, they could be less willing to invest funds into Nigerian equities, which might cause demand to fall and prices to tumble. Volatility, on the other hand, maybe a boon to traders and investors who can profit from little price fluctuations. Periods of extreme volatility may provide an opportunity for active traders with the skills to profit from the market's volatility. A rise in trade volumes and liquidity could boost the exchange group's performance (Nneji & Okafor, 2019).

An article from January 2021 in The Guardian Nigeria examined how the performance of the Nigerian Exchange Group was affected by stock price volatility. The report emphasised how the exchange group's performance was significantly affected by the increased volatility of the Nigerian stock market during the COVID-19 epidemic. It

stated that the market had experienced significant swings in stock prices, leading to decreased trading activity and reduced market capitalization. In order to encourage investment and market expansion, the article stressed the significance of stability and less volatility. The Nigerian Exchange Group's performance is very susceptible to stock price fluctuation. There may be changes in investor state of mind, trade volume, market liquidity, and risk perception as a result. While there are advantages and disadvantages to excessive volatility, the exchange group often does better when conditions are stable and volatility is decreased.

The success or failure of the Nigerian Exchange Group is highly dependent on the volatility of stock prices. The study focuses on the impact of lending rate (LEDR), exchange rate (EXHR) and inflation (INFR) as proxies of stock prices volatility (the independent variable) and market capitalization (MCAP) as measure of firm performances (dependent variable) of Nigerian Exchange Group. The degree of volatility can affect the investor's confidence, trading volumes, and overall market performance. For investors and policymakers to make educated choices, they must understand the causes that cause stock prices in the Nigerian stock market to fluctuate.

STATEMENT OF THE PROBLEM

Stock price volatility and the NGX's performance are the primary foci of the problem statement. To comprehend the dynamics of the Nigerian stock market and make informed decisions, this study is crucial for market participants, analysts, and investors. The stock market in Nigeria has been quite unstable recently, with stock values fluctuating rapidly. A number of variables, including general economic and political uncertainty, sector-specific news and events, global market trends, and investor attitude, contribute to this volatility. However, it is crucial to evaluate the extent and impact of stock price volatility on NGX's overall performance.

The principal stock exchange in Nigeria, where securities are listed and traded, is the Nigerian Exchange Group (NGX). The vitality and allure of Nigeria's capital market may be gauged by the performance of the exchange group. Among these measures are the number of listed firms, trade volume, liquidity, market capitalization, and the participation of investors. Examining the role of NGX performance and stock price volatility could provide light on the growth potential and stability of the Nigerian stock market.

Consequently, this study is vital because Nigerian stock market stakeholders need to know how the Nigerian Exchange Group is doing and how stock price volatility affects them. Investors, analysts, and regulators may all benefit from a better understanding of how it affects making informed decisions, creating more efficient risk management plans, and boosting market stability and efficiency.

RESEARCH QUESTION

The following research questions were evaluated for the study;

- ✓ What is the impact of lending rate on market capitalization in the Nigerian Exchange Group?

- ✓ How does the exchange rate impact the market capitalization of the Nigerian Exchange Group?
- ✓ Is there a convergence of the inflation rate and market capitalization in the Nigerian Exchange Group?

RESEARCH HYPOTHESES

The hypotheses of the study were formulated from the above research questions as follows;

HO₁; There is no impact lending rate has on market capitalization in the Nigerian Exchange Group.

HO₂; Exchange rate has on significant brunt on market capitalization in the Nigerian Exchange Group.

HO₃; There is no influence inflation rate has on market capitalization in the Nigerian Exchange Group.

OBJECTIVES OF THE STUDY

The aim of the research is to analyze the impact of stock price volatility on the performance of the Nigerian Exchange Group. While the specific objectives are as follows;

- ✓ To determine the impact of lending rates on the market capitalization of the Nigerian Exchange Group.
- ✓ Examine the brunt of exchange rate on market capitalization in the Nigerian Exchange Group.
- ✓ To study the impact of inflation on the Nigerian Exchange Group's market capitalization.

SIGNIFICANCE OF THE STUDY

This study examines how the Nigerian Exchange Group (NGX) is affected by stock price volatility and performance. The study will show how key policies for the financing of working capital improve the financial performance of commercial organisations. At the end of the study, various preferences in funding (formal and non-formal) will be suggested, such as the current ratio, to measure the company's profitability, the account payables after delay, the investment funds payment and deferred tax liability over the next accounting period to permitted the corporation to make available the investment fund.

This study or research will, therefore, lead, motivate and excite entrepreneurial companies to comprehend working capital financing and its performance and continue research into solutions to the difficulties and problems of working capital finance preferences and corporate performance. In fact it will be extremely essential and a precursor to study for students, institutions, academics and research colleagues who want to pursue a connected subject.

This research will contribute significantly and provide even more valuable information to other current studies on the stock price volatility and performance in the Nigerian Exchange Group (NGX). However, practitioners and academics will find the study useful as it shall be of considerable assistance and interest in their future studies. The researcher also believes that this study will probably fill a gap in the already existing relevant literature in the field. This is because no other researcher in Nigeria or elsewhere has examined or discussed the subject in this manner.

SCOPE OF THE STUDY

The purpose of the research is to ascertain the effect of NGX stock price volatility on performance. The study's independent variables are the lending rate, exchange rate, and inflation rate; the dependent variables are the market capitalization and volatility of stock prices. Using the time frame of 1986–2022, as the unit and time scope, the statistical data for the variables were collected from the National Bureau of Statistics bulletin of 2023.

II. LITERATURE REVIEW

FIRM PERFORMANCE

The term "firm performance" describes the sum of a company's monetary and operational gains or losses. Profitability, efficiency, productivity, competitive advantage, market share, and shareholder value are all parts of it. Managers, investors, and other stakeholders must comprehend and analyse business performance to evaluate a company's viability and success. This discussion will provide an exhaustive overview of different aspects of firm performance, as follows;

- ✓ Profitability: One measure of a company's financial health is its profitability. Return on equity (ROE) and return on assets (ROA) are two ways to measure it. Profitability and business performance were shown to be positively correlated in the South African manufacturing sector by Beukes and Roe (2016). Similarly, Vasiliou et al. (2019) demonstrated a significant association between profitability and firm performance among listed Greek companies.
- ✓ Productivity: Productivity measures a firm's ability to generate output relative to its input. It can be gauged through metrics such as labor productivity and total factor productivity (TFP). Hitt and Brynjolfsson (2017) emphasized the importance of productivity as a driver of firm performance, highlighting its role in enhancing competitive advantage and profitability.
- ✓ Efficiency: Efficiency refers to how well a firm utilizes its resources to achieve desired outcomes. It encompasses aspects such as cost efficiency, operational efficiency, and resource allocation efficiency. Specifically investigating SMEs in Italy, Bonesso et al. (2020) found that efficiency has a positive impact on company performance.
- ✓ Competitive Advantage: Maintaining a competitive advantage enables a firm to outperform its rivals in the industry. It can be achieved through factors like product differentiation, cost leadership, and technological innovation. Barney (1991) proposed the Resource-Based View (RBV) theory, which suggests that firm-specific resources and capabilities contribute to sustainable competitive advantage, leading to superior firm performance.
- ✓ Market Share: Market share represents the portion of market sales captured by a company. Since it shows how well the business is doing at attracting and retaining customers, it is typically thought of as a crucial

performance indicator. Regarding Chinese manufacturing companies, Yan and Liang (2020) discovered a positive correlation between market share and company performance.

- ✓ Shareholder Value: Shareholder value refers to the financial returns received by shareholders through dividends and capital appreciation. It serves as a fundamental criterion for evaluating firm performance from an investor's perspective. Warner (2014) found a positive correlation between shareholder value and firm performance, emphasizing the importance of generating wealth for shareholders.

Firm performance is a multidimensional concept that encompasses various aspects such as profitability, productivity, efficiency, competitive advantage, market share, and shareholder value as explained above. These dimensions are interconnected and collectively contribute to assessing the success and sustainability of a company in the market. Understanding firm performance allows managers, investors, and stakeholders to make informed decisions and develop strategies to enhance the overall performance of the firm (Beukes and Roe, 2016).

MARKET CAPITALIZATION

The market capitalization of a company is defined by Anyanwu (2012) as the sum of all the market value of its outstanding shares of stock. This is the result of multiplying the current market price per share by the number of outstanding shares. Analysts and investors use market capitalization as a key measure to assess the size, value, and relative worth of a firm. According to the article "Tech giant ABC's market capitalization surpasses \$1 trillion," for instance, the sum of all marketable shares in ABC has surpassed \$1 trillion, positioning it as one of the world's most valuable and biggest companies.

To illustrate the point, a financial expert may write, "Investors should consider buying stocks with mid-cap market capitalization for potential growth opportunities." In this context, "mid-cap" means a market valuation of \$2 billion to \$10 billion. These firms are more risky than large-cap ones, but they are also more likely to have strong growth prospects. When comparing businesses in the same sector or market, or just looking at how big a firm is in general, market capitalization is a great metric to employ (Adelopo & Entebang, 2020).

CONCEPT OF STOCK PRICE VOLATILITY

Umaru (2020) refers Stock price volatility to the rapid and significant price fluctuations experienced by stocks and other financial instruments in a particular market. It is a measure of the degree of uncertainty or risk associated with an investment. In order to weigh the benefits and drawbacks of investing in a certain stock or market, investors must have a firm grasp of the factors that affect stock price volatility.

Using monthly data from 2002–2012, Ariyo, Timi, and Odusami (2016) investigated how stock price volatility affected the performance of the Nigerian stock market.

According to their findings, market performance was severely impacted by stock price volatility.

Furthermore, Ojo (2012) sought to determine the factors that influence the volatility of stock prices on the Nigerian stock exchange. The study identified several factors such as macroeconomic variables, liquidity, and market structure that influenced stock price volatility in Nigeria.

LENDING RATE

This is the real amount of interest payable for a period which is a fraction of the amount bought by the lender. The total interest on the amount borrowed depends on the quantity borrowed. The lending rate is, thus, the entire amount charged by financial institutions on the quantity of the loans. Manufacturers are the drivers of global economic development. Its success relies mostly on the monetary policy, particularly the interest rate on the benchmark. To be exact, the appropriate interest rates are essential to improving economic growth and development in a country's production and promotion. High interest rates thus resulted in higher borrowing costs which negatively affected domestic investment. It also lowers aggregate demand; unemployment is increasing and economic growth is decreasing. This affects investment, finance alternatives and economic growth policymakers. Likewise, low interest rates exacerbate aggregate investment, demand, production, business trust, jobs and competitiveness in exports.

The authors stated that the poor performance of manufacturing firms was due to the high loan rates (Adebiyi and Babatope-Obasa, 2004; Obamuyi, Edune & Kayode, 2012; Gideon, Gabriel & Oladipo, 2015). The high loan rates, which affect DMB contributions and overhead costs, the CRR ratio, which affects banks' incomes and funding costs, and the liquidity ratio, which affects the settlement of the Nigerian Deposit Insurance Corporation (NdIC) premium, are just a few of the challenges that financial institutions face. Partially due to these additional costs, high-interest loans in the double digits would accumulate over time (Jibrin et. al., 2015). Jhingan (2003), stated that if the rate is high, the investment would be low, and if the rate falls, investment will increase and vice versa. Therefore, there is a need to support an interest rate regime which ensures cheap investment expenditure and ultimately boost economic development at extremely low financial cost.

EXCHANGE RATE

The rate at which one currency is exchanged for another is known as the exchange rate. It is a highly important macroeconomic variable that influences the economic activities of countries, and has important implications for international trade, inflation, interest rates, and capital flows (Bahmani-Oskooee, 2020). For many years, researchers in the fields of international finance and economics have sought to understand the factors that influence exchange rates. The causes of currency exchange rates have been the subject of a great deal of research. Alfarhan and Al-Rasheed (2020) showed that economic growth, inflation, and interest rates are the major determinants of exchange rates in Saudi Arabia.

Similarly, Akram and Moran (2019) found that changes in oil prices significantly affect exchange rates in the United States, Canada, and Australia.

Research on the effects of fluctuations in exchange rates on trade is also quite popular. Lorde and Jackman (2019) examine the influence of fluctuating exchange rates on export volumes from the Caribbean and find that it significantly reduces export volumes. Depreciation of the Pakistani rupee has a positive impact on the trade balance in the short-run, according to Mohsin and Muhammad's (2019) analysis of the effects of exchange rate variations on Pakistan's trade balance.

Central banks around the world have employed various policies to control exchange rate movements. Based on research, Hossain and Al-Amin (2020) concluded that the Central Bank of Bangladesh significantly affects exchange rate volatility when it intervenes in the foreign exchange market. The short-run effects of the Reserve Bank of Australia's monetary policy on the Australian dollar exchange rate are examined in distinct research by Mohd and Sathye (2019), which examines the role of interest rate differentials in this relationship.

INFLATION RATE

According to Egbita and Osisioma (2021), the inflation rate is the annual percentage change in the general level of prices for goods and services. It is an important economic indicator that directly impacts individuals, businesses, and governments. Various studies have examined the factors influencing inflation and its consequences on different aspects of the economy. Below are some notable literature reviews on inflation rate:

Davig and Leeper (2007) reviewed literature on the fiscal theory of the price level. The study discussed how fiscal policy decisions, such as changes in government spending and taxation, can have long-term effects on inflation. It emphasized the role of fiscal policy in shaping inflation dynamics. These are just a few examples of literature reviews on inflation rate compared to other concepts, each examining a different aspect and providing insights into the relationship between inflation and various economic factors. These studies contribute to our understanding of inflation and its implications for economic stability and growth.

The correlation between inflation and the performance of Nigeria's stock market has been the subject of several investigations. According to Olowe (2014), high inflation rates adversely affect stock market performance in the short run since inflation reduces stock market returns. The effect of inflation on the Nigerian stock market was investigated by Agbeyegbe et al. (2017) through the use of a dynamic panel data model. According to the findings, stock market returns are negatively and significantly affected by inflation, suggesting that low stock market performance is the outcome of higher inflation rates.

THEORETICAL FRAMEWORK

THE MONETARY APPROACH

The exchange rate thus takes a perspective on the significance of money as a currency exchange unit as a consequence of a relative currency transition, inflation, domestic production in a nation, and a corporate party economy. Frankel (2017) argues that this exchange rate determination model strikes the equilibrium when current monetary stocks are retained willingly in both nations. The monetary or asset-market approach, two names for the flexible monetary approach to the exchange rate, both emphasize the role of money and other assets in affecting the exchange.

The shift in exchange rates is mostly due to income and expected returns and other factors affecting suppliers and national-currency demands, Ogbokor and Meyer (2017) believes the monetary model therefore assumes three fundamental determinants of the currency: relative cash provision, relative income and the difference in interest rate. Due to the fact that money supply and demand is depending on revenue level.

EMPIRICAL LITERATURES

In 2021, Aruna and Adyanj examined the impact of stock price volatility on the performance of the Nigerian Exchange Group market. Volatility management should be taken seriously by market participants and investors since there is a significant negative relationship between stock price volatility and market performance, according to the statistics. The Nigerian Exchange Group's performance is significantly impacted by stock price volatility. The volatility of a stock market is defined as the degree to which its price changes over a certain time frame. The exchange group's performance in Nigeria's stock market may be positively or negatively affected by significant stock price volatility.

Ravi and Wang (2001): The paper examined the relationship between historical volatility and stock returns using a large sample of US stocks. The authors find that stocks with higher historical volatility tend to have lower average returns, suggesting that historical volatility can be a predictor of future returns. Uwuigbe and Abdulkadir (2020). This research looks at how stock market volatility affects the performance of the Nigerian stock exchange. The authors examine the correlation between volatility and market performance using daily data from 2009 to 2018 using a variety of statistical methods. This research aims to investigate the link between corporate governance practices, market performance, stock price volatility, and the Nigerian stock market (Adelopo and Entebang, 2020). The authors examine data from 2010 to 2017 and find that stock price volatility correlates negatively with market performance, underscoring the need for strong corporate governance.

Adelegan (2020) the study explored the effect of stock market volatility on the performance of listed companies in Nigeria. Based on the findings, companies should devise plans to deal with market volatility as it has a significant negative impact on company performance. This research aims to investigate the connection between Nigerian stock market

volatility and company performance (Yusuf and Ahmad, 2020). Firm performance is negatively affected by increasing stock market volatility, according to the research. This highlights the need for strong risk management strategies among Nigerian companies. Omolehinwa and Ajayi (2020) investigated the impact of stock market volatility on the financial performance of Nigerian banks. Higher stock price volatility has a detrimental impact on banks' financial performance, according to the report.

The study by Onakoya and Adetiloye (2019) looked at how the Nigerian Stock Exchange's market performance was affected by stock price volatility. The results show that stock price volatility is negatively correlated with market performance, which highlights the importance of investors using effective risk management techniques. The research by Adelegan and Osman (2019) looked at how economic growth in Nigeria relates to stock price volatility. It finds that growth in the economy is hindered when stock price volatility increases. Eleodimuo and Okorafor (2019) the study examined how historical volatility affects the performance of mutual funds. It explores the relationship between the historical volatility of both stock and bond markets and the risk-adjusted returns of mutual funds.

Adelegan, Sakiruand and Olokoyo (2018) the research investigated the impact of stock market volatility on the performance of listed companies in Nigeria. The study uses quarterly data from 2001 to 2016 and employs the GARCH (1,1) model to estimate volatility. The results imply that companies listed on the Nigerian stock exchange have been negatively impacted by stock market volatility. The research by Adebisiaa and Mudashiru (2018) explored the correlation between the ownership structure of a company and the volatility of its stock price on the Nigerian stock exchange. It finds that ownership structure significantly affects stock price volatility.

The effect of stock price volatility on the performance of Nigerian listed banks was examined in the research by Dibia and Ezeoha (2018). It finds that stock price volatility negatively affects bank performance. Olowe (2018) the study examined the relationship between stock market volatility and performance in the Nigerian Stock Exchange. The results suggest that increased volatility negatively affects stock market performance, indicating that investors should take into account volatility when making investment decisions.

According to Zubair and Aladejare (2017), this research looked at the period between 1986 and 2015 to determine how the naira's volatility affected the performance of the Nigerian stock market. They used the method of Generalised Auto-Regressive Conditional Heteroscedasticity. According to the study's findings, the correlation between stock market performance and exchange rate volatility is rather minimal. This finding disproves the hypothesis that the stock market's appropriate allocation of capital would be impacted by the normal abundance of uncertainty in the exchange rate market. Fluctuations in exchange rates are unlikely to have much of an effect. It was discovered that the stock market is affected by other macroeconomic indices like GDP and inflation. The results of the stock market, however, were shown to be unaffected by the interest rate. Companies trading on the Nigerian Stock Exchange (NSE) may be using hedging

products more often, which might explain why the naira's volatility isn't translating into stronger stock market performance. This finding has policy implications. To eliminate the negative consequences of Naira volatility, more hedging mechanisms are needed. The NSE's regular operation must be unaffected by these hedging mechanisms, and they must be efficient.

III. METHODOLOGY

To guide the investigation, the researcher used an ex-post facto research strategy. Time series data used in the research was obtained from yearly statistics collected by the National Bureau of Statistics from 1985 to 2021. The ex-post facto design was used because the study made use of secondary data which are beyond the manipulation of the researcher. The targeted population of the study is the whole Nigerian Exchange Group (NGX) which take effect from 1986 – 2022.

The investigation critically made use of market capitalization as measure of dependent variable (performance of the Nigerian Exchange Group) while lending rate (LED R), exchange rate (EXHR) and inflation rate (INFR) as proxies of the independent variable stock price volatility. Then, the choice sampling techniques adopted is the purposive sampling techniques based on the researcher understandability. The time series panel data which were sourced secondarily to suit the purpose of the study on the impact of stock price volatility and performance in the Nigerian Exchange Group (NGX) for the period under review.

The study sourced data were analyzed with the econometrics statistical package of E-view 0.9 version to ascertained effects of the formulated hypotheses. Basically, the researcher employed descriptive statistics, OLS (pooled least square regression method, unit root test to ascertained the stationarity, and the fixed effects panel regression.

MODEL SPECIFICATION

The model specification is built upon to analyze the data generated for the study. Therefore, the model of the study is;

$$Y = a + b(x) \dots \dots \dots \text{Eq1}$$

$$\text{MCAP} = f [\text{LED R}, \text{EXHR}, \text{INFR}]$$

From the model specification built above resulted to the following study equation;

$$\text{MCAP} = \beta_0 + \beta_1 \text{LED R}_t + \beta_2 \text{EXHR}_t + \beta_3 \text{INFR}_t + \mu \dots \text{Eq2}$$

Where;

MCAP= Market capitalization

LED R= Lending rate

EXHR= Exchange rate

INFR= Inflation rate

β_0 = the constant value

$\beta_1 - \beta_3$ = the coefficient of the variables

μ = the error term

t_i = the time interval

IV. RESULTS AND DISCUSSION

	MCAP	C	LED R	EXHR	INFR
Mean	8065.158	1.000000	2.506757	127.9415	19.11919
Median	1359.300	1.000000	4.520000	120.0000	12.54000
Maximum	42054.50	1.000000	18.18000	445.4700	72.84000
Minimum	6.600000	1.000000	-31.45000	0.894000	5.390000
Std. Dev.	11089.97	0.000000	9.814542	126.2981	17.44122
Skewness	1.496767	NA	-1.211996	0.904400	1.775610
Kurtosis	4.675980	NA	5.336315	2.791931	4.846436
Jarque-Bera	18.14565	NA	17.47341	5.110705	24.69826
Probability	0.000115	NA	0.000161	0.077665	0.000004
Sum	298410.8	37.00000	92.75000	4733.834	707.4100
Sum Sq. Dev.	4.43E+09	0.000000	3467.709	574243.9	10951.07
Observations	37	37	37	37	37

Source: E-view output, 2023

Table 4.1: Descriptive Statistics

Table 4.1, the descriptive statistics shown the average value of the series as MCAP (8065.15 in billion), the dependent variable while LED R, EXHR and INFR (independent varies) have its averages values as 20.02507, 1.28 and 0.1912 respectively. The market capitalization has its maximum and minimum values in the series as N42 billion, 054.50 and N6.60 respectively. Then LED R, EXHR and INFR have their maximum and minimum values as 0.1819, 4.45 and 0.73 accordingly and -0.32, 0.0089 and 0.054 respectively.

The skewness of a normal series is zero. Summarily, none of the series in the distribution is normal. Consequent upon the above, MCAP, EXHR and INFR of skewness positive figures N1.497 billion, 0.009 and 0.0178 respectively simply means these variables have a long right tail while the LED R with a negative value of -0.012 shown a long left tail of the variable in the distribution. However, the kurtosis also has a similar situation that shown that only EXHR of 3 is normally distributed. While MCAP, LED R and INFR values of N4.675, 5.336 and 4.846 respectively are above the value, implies that the distributions are assumed to be peaked relative to the normal.

Among the variables, MCAP and LED R have a higher spread from the mean as their standard deviation values reads 11089.97 and 9.815 respectively. While EXHR and INFR have a lower deviations from the mean as 1.26 and 0.17 accordingly. Collectively, the Jarque-Bera and probability values of MCAP, LEDAR, EXHR and INFR are 0.18 (0.000115), 0.17 (0.000161), 0.051 (0.0-777) and 0.25 (0.000004) are not statistically significant at 0,05%. This implies that at the level of statistical significant, the null hypotheses are not rejected.

Dependent Variable: MCAP
Method: Pooled Least Squares
Date: 10/09/23 Time: 15:10
Sample: 1 37
Included observations: 37
Cross-sections included: 5
Total pool (balanced) observations: 185

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2287.655	882.0178	-2.593661	0.0103
LEDR	-19.94231	54.99252	-0.362637	0.7173
EXHR	80.75307	2.850052	28.33389	0.0000
INFR	3.720720	30.96747	0.120149	0.9045
R-squared	0.832186	Mean dependent var		8065.158
Adjusted R-squared	0.829405	S.D. dependent var		10968.77
S.E. of regression	4530.446	Akaike info criterion		19.69641
Sum squared resid	3.72E+09	Schwarz criterion		19.76604
Log likelihood	-1817.918	Hannan-Quinn criter.		19.72463
F-statistic	299.1928	Durbin-Watson stat		0.653808
Prob(F-statistic)	0.000000			

Source: E-view output, 2023

Table 4.2: Pooled Least Squares

From Table 4.2 shown that the coefficient and probability of - 19.943 and 0.717 (LEDR) respectively which implies a negative relationship and insignificant statistically. However, EXHR has a positive and statistically significant impact on market capitalization, as shown by its coefficient value of 80.753 and probability value of 0.000. While INFR values of 3.721 and 0.904 are for coefficient and probability respectively, which implies a positive relationship but not significant. The above implies that MCAP increases with higher EXHR and INFR while decreases with LEDR.

The R.square statistic value explanatory variables (LEDR, EXAR and INFR) in the study which accounts for 83.2 percent the variation in MCAP. While the remaining 16.8 percent usually accounts for the other variables unexplained. Consequently, the adjusted R-squared value of 82.9 percent means that there is fewer penalties for irrelevant variables in the model for the study.

Generally, F-statistic and probability values of 299.19 and 0.000 respectively show that the overall goodness of fit of the model or study is satisfactory.

TEST OF HYPOTHESES

HO₁; There is no impact lending rate has on market capitalization in the Nigerian Exchange Group.

The Table 4.2, output of the pooled least square regression analysis gives a coefficient of -19.942 and probability of 0.7173 which indicates that lending rate has a negative and insignificant impact on market capitalization in Nigerian Exchange Group. This implies that the null hypothesis is accepted.

HO₂; Exchange rate has on significant brunt on market capitalization in the Nigerian Exchange Group.

Table 4.2 on the variable exchange rate demonstrated a coefficient value of 80.753 which indicates a positive impact existence on market capitalization. A positive and statistically significant impact of the study on the Nigerian Exchange Group's performance is observed (p=0.000). This leads us to accept the alternative hypothesis, which states that the Nigerian Exchange Group (NGX) market capitalization is significantly affected by exchange rate, and reject the null hypothesis.

HO₃; There is no influence inflation rate has on market capitalization in the Nigerian Exchange Group.

From Table 4.2, the coefficient and probability values in the empirical analysis are 3.721 and 0.905 respectively. The output clearly depicts that, inflation rate has a positive but not significant impact on market capitalization in the Nigerian Exchange Group. Thus, this mean that the null hypothesis formulated by the researcher is not ejected to the 5 percent level of significant as decision rule in the study.

DISCUSSION

The outputs of regression analysis conducted on the various hypotheses in the study clearly showed that, the variable lending rate impair a negative and statistical insignificant influence on market capitalization. However, exchange rate and inflation rate have a positive impact on market capitalization. Though, the former has a statistical significant effect while the latter has an insignificant effect on the performance in the Nigerian Exchange Group. Therefore, these indications corroborate and also contradict with some reviewed related empirical literatures as lucid below;

Adelopo and Entebang (2020), Adelegan, Sakiru and Olokoyo (2018), Yusuf and Ahmad (2020), Dibia and Ezeoha (2018) and Olowe (2018) are all reviewed related empirical studies that showed a negative and not significant effect on stock price volatility on performance in the Nigerian Exchange Group which is in conformity with the study on stock price volatility (lending rate, LEDR) on market capitalization. Therefore, the above implies that increase in lending rate has no much effect on stock price volatility and consequently the overall stock market performance in Nigerian context. In effect, investors and stock broker should not place much emphasis on the economy lending rate when trading on stock(s) in the market. Stock price volatility as a result of lending rate is not a worthwhile assumption to determine effectiveness of the Nigerian Exchange Group (NGX).

On the other hand, research by Adebisi and Mudashiru (2018) and Adyanju and Aruna (2021) indicated that stock price volatility positively and significantly improved stock exchange performance. The results of these investigations support the hypothesis that "market capitalization in the Nigerian Exchange Group is significantly impacted by exchange rate." That showed a rejection of the null hypothesis. This implies that exchange rate has influence on the performance in the exchange market in Nigeria. Therefore, the constant fluctuation of exchange rate in Nigerian economy usually impact negatively on the stock price volatility. The above is situation is still applicable to the inflation rate assumption.

V. SUMMARY, CONCLUSION AND RECOMMENDATIONS

SUMMARY OF FINDINGS

The study examined the impact of stock price volatility on performance in the Nigerian Exchange Group with the employment of secondarily source data from the Stock

Exchange Market for a period from 1985 – 2021. The analysis out of the study found that;

- ✓ The market capitalization of Nigerian Exchange Group is negatively affected by lending rates; however, this effect is insignificant.
- ✓ The performance of the Nigerian Exchange Group is positively and significantly affected by the exchange rate.
- ✓ The market capitalization of the Nigerian Exchange Group is positively impacted by inflation; however, the impact is not statistically significant.

CONCLUSION

The study scrutinized the impact of stock price volatility on performance in the Nigerian Exchange Group. The analytical outcomes of the investigation conclude that stock price volatility is not impeded by rapidly increasing lending rate in the economy. Therefore, it is not a good idea to use lending rate as a measure of stock market volatility. On the contrary, the study wrap up that the positive and significant link demonstrated in the case of exchange rate on market capitalization is a firm indication on the influence of stock price volatility in Nigerian Exchange Group. Therefore, a higher exchange rate will lead to a higher volatility in stock price and vice versa. Finally, the positive association of inflation rate on market capitalization clearly showed that it has a similar consequence with the former (exchange rate) in the market but with a slight difference. The impact of inflation rate on the volatility of stock price is less compare to that of exchange rate in the study. Therefore, investors, stock brokers, etc trading in the exchange market should be skeptical with the season of high exchange and inflation rate in investing and also advising potential client.

RECOMMENDATIONS

Upon the findings from the analysis in the studies, the researcher kinly proposed the following recommendations that;

- ✓ Individuals, companies and government trading in the Nigerian Exchange market should not make use of lending rate as part of the assumption to predict stock price movement either upward or downward.
- ✓ Exchange rate is an essential feature determining volatility of stock price in the Nigerian Exchange Group (NGX). Investors should be considering exchange rate as a major determinant of particularly upward stock price volatility which is a good time trade off stock.
- ✓ Investors and stock brokers should use high inflation rate to examine Nigerian Exchange Market performance. Likewise operators of the market should focus when there is inflation to take selling decision and vice versa.

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