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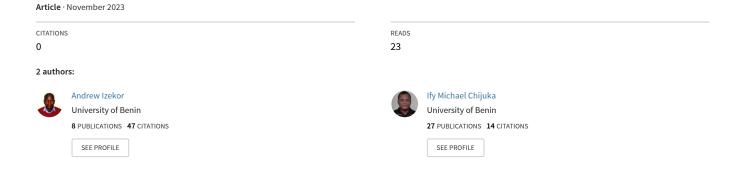
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Abstract

This study empirically tests for short-run and long-run connection between exchange rate, inflation rate and market capitalisation. Data for the study were collected from the Nigerian central bank data base. The ex-post facto research design was employed using the time series econometric techniques, to perform the diagnostic tests and inferential analyses of the data. Based on the data analyses, the study revealed positive and insignificant connection between exchange rate and market capitalisation, which implied that the continuous depreciation of the naira to the dollar have positive and inconsequential influence on the Nigerian capital market at both the short run and the long run. The result as well revealed negative and insignificant connection between inflation rate and market capitalisation, which implied that the continuous increase in the rate of inflation would adversely but with inconsequential influence on the Nigerian capital market at both the short run and long run. The study strongly recommends for government to ensure that all relevant policy institutions should be active and effective in making regular systemic inflation checks and appropriate inflation policy innovations, to ensure that financial market induced performance are built around effective capital market system.

Keywords: capital market, indicators, inferential, macroeconomic, Nigerian.

1.0 Introduction

Macroeconomic indicators and capital market performance have been the foremost consideration by financial analyst and economist in both developed and developing economies. In the Nigerian setting, the participants in capital markets are the Nigerian Securities and Exchange Commission, the Nigerian Stock Exchange, Development Banks, Investment Banks, Discount Houses, Stock broking firms, Insurance and Pension Organizations, Building Societies, Quoted Companies, as well as the Government and individuals (Eneisik, Ogbonnaya & Onuoha, 2021). However, most market indicators such as market capitalization, total new issues, total value of transaction traded, total listed equity volume of transactions, all share index, turnover ratio, number of deals, total listed securities are determinants that increases the activities of the capital market performance, which enhances economic growth and development of a nation (Eneisik, Ogbonnaya & Onuoha, 2021). Capital Market as a driver of an economy, is a relevant area of the financial market, which deals in financial assets with long or indefinite maturity. It is segmented into the primary and the secondary markets, which deals with new and old securities respectively. Moreover, all dealings in financial tools such as insurance claims, debentures, bank deposits bills, loans, corporate shares, stock exchanges, etc are accommodated by the capital marke (Adewole, 2010; Osaze 2000; Obinna & Nkiru, 2014; Mustapha & Yusuf, 2013). The financial sector development is a growth enhancement of the capital market performance, which enhances real economic growth, in such that the performance of the capital market has overtime supported the government and corporate entities to raise long term capital in view to finance economic industrialisation. As a consequence, the majority of long term finance are raised through the issuance of bonds and equities in the capital market (Agarwal, 2001; Odetayo & Sajuyigbe, 2012; Acha, Akpan & Ekpo, 2017). The search for literature as considered by this study on macroeconomic indicators and the performance of the Nigerian capital market were extremely few in the direction of the capital market performance such as Kolapo, Oke and Olaniyan (2018), which examined macroeconomic fundamentals and stock market performance in Nigeria; Okoro (2017), which considered macroeconomic factors and stock market performance in Nigeria. However, very few related studies focused on stock prices and not basically on the performance of the capital market such as Akani and Lucky (2014), investigated money supply and aggregate stock prices in Nigeria; Malaolu, Ogbuabor and Orji (2013), looked at macroeconomic determinants of stock price movements in Nigeria; Ogbulu and Uruakpa (2011), examined monetary policy and stock prices in the Nigerian capital market. Furthermore, few related literature focused in the direction of capital market indicators and the Nigerian economic growth and development such as Eneisik, Ogbonnaya and Onuoha (2021), considered capital market indicators and economic growth in Nigeria; Mustaplia and Yusuf (2013) looked at capital market indicators and the Nigerian economy;

Nathanael (2014), examined stock price and the Nigerian economic development; Victor, Kenechukwu and Eze (2013) studied capital market and Nigerian industrial sector development; Acha, Akpan and Ekpo (2017), examined capital market development and the Nigerian economic growth; Adeusi, Sulaiman and Azeez (2013), studied capital market development and economic growth in Nigeria; Bashorun and Bakare-Aremu (2013), considered capital market development and economic growth in Nigeria; and Okwu and Obiakor (2011) examined capital market development and economy growth in Nigeria; In view of the foregoing, a gap was instigated for the purpose of this study, to empirically contribute to the extremely few literature on the bases of macroeconomic indicators and the Nigerian capital market performance.

Research Objectives

Specifically the study aimed at achieving the following objectives:

i. To determine the short run and long run equilibrium connection between exchange rate and market capitalisation

ii. To examine the short run and long run equilibrium connection between inflation rate and market capitalisation

2.0 Review of Related Literature

Capital Market as a Concept

The capital market is a significant part of the financial market, which transactions are in financial assets with long term or indefinite maturity. The capital market accommodates all transactions in financial tools such as debentures, bank deposits bills, insurance claims, loans, stock exchanges, corporate shares, etc. Capital market is divided into the primary market, which deals in new securities and the secondary market, that trades on old securities (Adewole, 2010; Obinna & Nkiru, 2014; Mustapha & Yusuf, 2013). Traditionally, the capital market is predetermined as both the stock market and the commodity market, such that the stock market refers to the segment where financial or monetary assets such as shares, bond funds (mortgage/loans project loans), etc, are raised and traded, while the commodity market is a section of the market, where agricultural produce in raw materials are traded. A commodity exchange market, operates a trading floor where the market operators carry out their businesses (Eneisik, Ogbonnaya & Onuoha, 2021). Osaze (2000) refers to the capital market as the force, which stimulates the economy towards essential growth and development, for long term capital expansion which is a crucial avenue for mobilising and allocating savings for productive investment. It is known that the capital market facilitates savings through the provisions of additional financial instruments for individuals, that may better meet their risk preference and liquidity requirements.

The capital market provides the means for infant companies to raise, mobilise and utilise long term funds at lower cost for development, which refers to as the long term end of the financial system (Emeh & Chigbu, 2014). Adewole (2010) emphasized that, the capital market encompasses all establishments and facilities, which are meant to mobilize and allocate long term finances for final users. Al-fakhi (2006) refers to the capital market as a specialized system of financial institutions, series of mechanisms, processes and infrastructures that, in diverse ways link suppliers and users of medium to long-term capital for investment in economic development projects. However, Ikenna (2013) opines that the capital market is referred to as a group of financial institutions, which interrelate for the purpose of mobilizing and allocating long term funds for productive investment.

Capital Market Performance

The growth of the financial sector smoothes the progress of the capital market performance, which enhances real economic growth as it raises capital and output, ensuring the use of proper capital for production, in turn supports government and corporate entities in raising long term capital through the issuance of bonds and equities in the capital market to finance economic industrialisation (Agarwal, 2001; Pedro & Erwan (2004); Odetayo & Sajuyigbe, 2012; Acha, Akpan, & Ekpo, 2017). The performance of the capital market of any country, is based on the increase in physical capital, human capital and the advancement in information technology. The advancement of these factors requires savings and investments, which the capital market showcases as a major role in adequate formulation of capital. Capital market advancement provides a standard for corporate organizations to raise developmental funds to improve productivity for sustainable production, investment and for the improvement of goods and services (Kenneth, Moyotole, & Onyemaechi, 2019). The improved performance of the capital market is the mechanism which drives economic growth and development. In time past to the present day, the performance of the Nigerian capital market, as well as other global capital markets economies have been faced with some endogenous and exogenous challenges that have hampered the performance of the capital markets. The Nigerian capital market have so far been assessed to had performed fairly, due to several challenges, which have bedevilled the smooth activities in the markets such as the market size constraint; market illiquidity; slow growth of securities market; delay in delivery of share certificates; manual call-over problems; double taxation; lack of effective underwriting; microeconomic and macroeconomic instability due to ineffective economic policies; political instability; ignorance and illiteracy amongst Nigerian populace; and ineffective operation of recent developments such as the automated trading system, on-line and remote trading, central securities clearing system, trade alerts and capital trade points of the Nigerian stock exchange (Abdullahi, 2005; Emeh & Chigbu, 2014).

Concept of Macroeconomic Indicators

The interactions between macroeconomic indicators and the capital market have been of interest amongst financial economists and practitioners. Macroeconomic indicators such as exchange rate, interest rate, inflation rate, money supply, real output, etc are variables or main signposts signalling the trends in the capital market, which are components that measures the expansion to determine the activities of the capital market for economic growth and development. However, stock prices are determined by some basic macroeconomic variables such as interest rate, gross domestic product, exchange rate, inflation rate, real output and money supply (Maku & Atanda, 2009; Eneisik, Ogbonnaya & Onuoha, 2021). Maku and Atanda (2009) believe that monetary policy and macroeconomic events have consequential influence on the instability of stock price, which implies that macroeconomic indicators could exert shocks on share returns, thereby influencing investors' decisions.

Theoretical Review

This study is based on the financial instability hypothesis, which was developed by Hyman Minsky in the 1980s after the second world war. Minsky hypothesis is an explicit model which considered an economy with stable financing regimes and unstable financing regimes. Minsky's apparently stipulates that an economy through the capital market could move from stability to instability when there is adverse reaction of macroeconomic indicators, which tend to have deteriorating effect on the capital market, resulting to a reprisal influence on the economy.

Empirical review

Eneisik, Ogbonnaya and Onuoha (2021) investigated the period of the years 1989 to 2019, on the impact of capital market indicators on economic growth in Nigeria. The proxies for capital market indicators were market capitalization, all share index and total value of transactions traded and economic growth was proxied by gross domestic product. The econometric tools adopted for analyses were descriptive statistics, ordinary least square, Johansen cointegration and the pairwise granger causality tests. The findings revealed evidence of a long-run relationship between capital market indicators and economic growth in Nigeria, as well an evidence of a bi-directional relationship between capital market indicators and economic growth with market capitalization having a positive and significant impact on real gross domestic product. Furthermore, there were empirical evidences indicating that all share index and total value of transactions traded had positive and insignificant impact on real gross domestic product. The study concludes that capital market indicators stimulate economic growth in Nigeria. Okoro (2017) examined the period of the years 1986 to 2015, on the effect of macroeconomic factors on stock market performance in

Nigeria. The results after employing regression techniques revealed evidence that macroeconomic variables have no effect on stock market performance. Malaolu, Ogbuabor and Orji (2013) regression analyses were based on the application of the Engle and Granger two-step cointegration test for macroeconomic determinants of stock price movements in Nigeria for the period of the years 1985 to 2010. The results of the findings could not established any co-integrating vector, consequently, there was no long run equilibrium relationship between macroeconomic determinants and stock price movements in Nigeria. Ogbulu and Uruakpa (2011) conducted a test on the subsisting links between monetary policy and stock prices in the Nigerian capital market. The econometric techniques adopted for the analyses were the Johansen co-integration test, the generalised least square methodology and the granger causality techniques. The results showed long-run equilibrium relationship between stock prices and some monetary policy variables, while a unidirectional causality were established from stock prices to money supply, and from foreign exchange rate to stock prices. Acha, Akpan and Ekpo (2017) considered the effects of capital market development on the Nigerian economic growth for the period of the years 1981 to 2016. Capital market development was proxied by capital market performance indicators; and economic growth was proxied by gross domestic product. Acha, Akpan and Ekpo (2017) adopted for analyses the Johansen cointegration test, parsimonious vector error correction model and the pair-wise causality tests. The results revealed long run dynamic relationship between the indicators of capital market and economic growth. The parsimonious model showed that capital market indicators had a strong and positive significant relationship with a long run impact on the Nigerian economic growth. Kolapo, Oke and Olaniyan (2018) considered the effect of macroeconomic fundamentals on stock market performance in Nigeria for the period of the years 1986 to 2015. The study adopted the auto-regressive distribution lag bounds testing technique for all-share index, gross domestic product, money supply, interest rate, inflation rate and exchange rate. It was observed from the results that gross domestic product and money supply had significant effects on stock market performance in Nigeria. Furthermore, money supply and interest rate were positively related to stock market performance with long run relationship between macroeconomic fundamentals and stock market performance. Akani and Lucky (2014) evaluated the long run equilibrium relationship between the activities of money supply and aggregate stock prices in Nigeria for the period of the years 1980 to 2012, using the Johansen Juselius test of co-integration. The result showed a long-run equilibrium relationship between the surrogates of money supply and aggregate stock prices. Nathanael (2014) considered the influence of stock price and capital market development on the Nigerian economic development for the period of the years 1980 to 2012.

The Johansen co-integration and the error correction model were employed to estimate the capital market indicators such as market capitalization, government stock rate, value of equities and new issues in stock market. The results showed positive and significant linear correlation with economic growth in Nigeria. Mustapha and Yusuf (2013) employed the co-integration and the error correction technique to determine the existence of a long-run equilibrium correlation between capital market indicators and the Nigerian economy. The results revealed long-run correlation between capital market indicators and the Nigerian economy. Adaramola and Obisesan (2015) conducted a test on the impact of foreign direct investment on the Nigerian capital market development as it stimulates a country's economic development, using the Augmented Dickey Fuller test (ADF) unit root test, the Johansen co-integration test and the ordinary least square method for the period of the years 1970 to 2010. The results revealed no co-integrating relationship between foreign direct investment and market capitalisation. However, there was a positive and significant impact of foreign direct investment on market capitalisation, which enhances the Nigerian economic development. Adeusi, Sulaiman and Azeez (2013) undertook a study on the impact of capital market development on economic growth and development in Nigeria since the liberalization policy for the period of the years 1986 to 2010. The econometric techniques employed were the ordinary least square and the Johnson co-integration tests. Economic growth was proxy by gross domestic product, while all-share index, market capitalization, total new issues, total value of transaction and total listing were variables for capital market development. It was observed in the results that capital market development had no positive influence on economic growth and development, due to the relative limited size of the market irrespective of its development based on the liberalization policy. Idowu and Babatunde (2012), examined the effect of financial reform on capital market development in Nigeria for the period of the years 1986 to 2010, using ordinary least square technique. The chew breaking-point test was used for testing the effect of the capital market reform as introduced in 1995 on capital market development. Idowu and Babatunde results showed that the financial reform of 1995 had a significant effect on the capital market development in Nigeria. However, the proxy variables for the development of the banking sector, the activities of the central bank and other financial institutions negatively interacted with market capitalization, which showed that the activities of financial institutions hinders the development of capital market. Okwu and Obiakor (2011) adopted the ordinary least square method to examined the influence of capital market development on economy growth in Nigeria for the period of the years 1981 to 2008. Okwu & Obiakor (2011) observed that market capitalization and gross capital formations of foreign private investment were significant determinants of economic growth in Nigeria, while the volume of share traded had a positive

relationship with insignificant influence on economic growth. Victor, Kenechukwu and Eze (2013) undertook the effect of capital market on the Nigerian industrial sector development, using the descriptive statistics and the ordinary least square method on data for the period of the years 1980 to 2008. The results of the analyses revealed that capital market had a positive correlation with the development of the Nigerian industrial sector. Bashorun and Bakare-Aremu (2013) considered the correlation between capital market development and economic growth in Nigeria, using data for the period of the years, 1981 to 2011. The vector autoregressive model and the granger causality technique were applied on capital market variables such as all-share index, market capitalization and numbers of market deals. It was revealed that All-shares index, number of market deals and market capitalization had significant and positive relationship with economic growth in Nigeria. Consequently, the pairwise Granger causality was unidirectional, which showed causality between market capitalization and economic growth.

3.0 Methodology of the Research

The *ex-post facto* research design using the multiple time series econometric technique was adopted in this study through the use of e-views to carry out the diagnostic and inferential tests analyses. The tests performed were the descriptive statistics, the augmented Dickey-Fuller unit root test, the Johansen co-integration test, the error correction model and the ordinary least square test. The descriptive statistic explains the basic features of the data, which is a test for data normality; The augmented Dickey Fuller unit root, is a test for the stationarity of the variables; The Johansen co-integration, is a test for long run equilibrium correlation; While the error correction model is a test, which examines the short run relationship. Data were obtained from the Central Bank of Nigeria statistical bulletin, covering a period of 22 years from the period of 2000 - 2021. This study considered the year 2000 as its base year, because the Nigerian economy appeared then to have improved, as real GDP growth rate increased. The period of 22 years in the history of the activities in the financial market noticed significant changes in the Nigerian capital market. During this period, the Nigerian capital market witnessed policies in attempt to regulate the financial market. The test hypotheses were at 5% level of significance using p-value statistic, which denotes to reject the null hypothesis and accept the alternative hypothesis if $p < 0.05$, otherwise accept the null hypothesis if $p > 0.05$.

Specification of the Empirical Model

Model specification shows the mathematical and economic relationship that exists between the dependent (MCAP) and the independent variables (EXRATE and INFRATE). This study followed the model of Malaolu, Ogbuabor and Orji (2013), which applied the multiple regression technique

as specified thus; SPR = $_{r}0$ + $_{r}1$EXCR + $_{r}2$PIS + $_{r}3$MS + $_4$INTR + $_5$INF + . Our study is specified as:

$$MCAP_t = F(EXRATE, INFRATE)_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 1$$

The variables were transformed into logarithm to eliminate any form of abnormalities in the data generated. Log transformation is necessary to minimize Heteroskedasticity problem, which compresses the scale for which the variables are measured, thereby condensing a ten times difference between two values to twofold difference (Gujarati, 2003).

The specified econometric model in the log linear form is shown in equation 2 as:

$$MCAP_t = \beta_0 + \beta_1 LEXRATE_t + \beta_2 LINFRATE_t + \cup_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 2$$

Where:

β_0= constant coefficient

β_1 and β_2= coefficients of the independent variables.

$LMCAP_t$ = log of market capitalisation as a proxy to the Nigerian capital market

$LEXRATE_t$ = log of exchange rate

$LINFRATE_t$ = log of inflation rate in Nigeria

$\cup_t$= error term with a zero mean showing the adjustment on LMCAP$_t$.

The *a-priori* anticipation: β_1 , $\beta_2 < 0$

4.0 Presentation of Data

Table 1: Data for market capitalisation, exchange rate and inflation rate

Year	MCAP (₦'Billion)	EXRATE (₦/$)	INFRATE (%)
2000	472.30	102.1052	6.93
2001	662.50	111.9433	18.87
2002	764.90	120.9702	12.88
2003	1,359.30	129.3565	14.03
2004	2,112.50	133.5004	15
2005	2,900.06	132.1470	17.86
2006	5,120.90	128.6516	8.23
2007	13,181.69	125.8331	5.39
2008	9,562.97	118.5669	11.58
2009	7,030.84	148.8802	12.56
2010	9,918.21	150.2980	13.72
2011	10,275.35	153.8616	10.84
2012	14,800.94	157.4994	12.22
2013	19,077.41	157.3112	8.48
2014	16,875.10	158.5527	8.06
2015	17,003.39	193.2792	9.01
2016	16,185.73	253.4900	15.68

2017	21,128.90	305.79	16.52
2018	21,904.04	306.08	12.1
2019	25,890.22	306.92	11.4
2020	38,589.58	358.81	13.25
2021	42,054.50	399.92	16.95

Source: Central Bank of Nigeria statistical bulletin

Interpretation of Results

Table 2: Descriptive Statistics for market capitalisation, exchange rate and inflation rate

	MCAP	C	EXRATE	INFRATE
Mean	13494.15	1.000000	188.8076	12.34364
Median	11728.52	1.000000	152.0798	12.39000
Maximum	42054.50	1.000000	399.9200	18.87000
Minimum	472.3000	1.000000	102.1052	5.390000
Std. Dev.	11604.38	0.000000	89.06837	3.642004
Skewness	0.951070	NA	1.131794	-0.062456
Kurtosis	3.399324	NA	2.867129	2.226787
Jarque-Bera	3.462800	NA	4.713031	0.562339
Probability	0.177036	NA	0.094750	0.754900
Sum	296871.3	22.00000	4153.767	271.5600
Sum Sq. Dev.	2.83E+09	0.000000	166596.7	278.5481
Observations	22	22	22	22

Source: Researchers' computation (2023), using E-views7.0

The results in Table 2 showed the probability values of 0.177036, 0.094750 and 0.754900, which are not significant at 5% level for LMCAP, LEXRATE and LINFRATE respectively, with corresponding Jarque-Bera statistic of 3.462800, 4.713031 and 0.562339 respectively. Consequently, the results for the p-values of the Jarque-Bera statistic established normality in the data distribution.

Table 3: Stationarity Test Result Using the Augmented Dickey Fuller Unit Root Test

Variables	At Level	Prob.	At First Difference	Prob.	Order of Integration	Remark
LMCAP	-2.085139	0.2519	-3.779630	0.0106	I(1)	stationary
LEXRATE	-0.870120	0.9410	-3.142161	0.0394	I(1)	stationary
LINFRATE	-3.032968	0.1482	-4.077630	0.0060	I(1)	stationary

Source: Researchers' computation (2023), using E-views7.0

Table 3 indicates that the variables are stationary at first difference with probability values less than 0.05, which showed order of integration at first difference, I(1). Furthermore, the variables do not have unit root problem at 5% level of significance. Therefore, the Johansen co-integration test can

be carried out to determine the long run relationship between LEXRATE, LINFRATE and LMCAP.

Table 4: Johansen Co-integration Test Results for LMCAP and LEXRATE, LINFRATE.

Hypothesized No. of CE(s)	Eigenvalue	Trace/ Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.380937	9.590969	3.841466	0.0020

Trace and Max-eigenvalue tests indicate 1 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
Source: Researchers' computation (2023), using E-views 7.0

The Trace and Max-Eigen statistic test indicate one co-integrating equation, with probability values less than 5% in Table 4. This result showed that there is co-integration between LEXRATE, LINFRATE and LMCAP, which indicates a long-run equilibrium connection among the variables.

Table 5: Result of the Error Correction Model (ECM)
Dependent Variable: DLMCAP

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.256423	0.062792	4.083673	0.0008
DLEXRATE	-0.357740	0.597110	-0.599120	0.5570
DLINFRATE	-0.416043	0.149067	-2.790976	0.0125
ECM(-1)	-0.248625	0.074246	-3.348647	0.0038

R-squared	0.494617	Mean dependent var	0.213767
Adjusted R-squared	0.405432	S.D. dependent var	0.301461
S.E. of regression	0.232451	Akaike info criterion	0.089368
Sum squared resid	0.918568	Schwarz criterion	0.288324
Log likelihood	3.061639	Hannan-Quinn criter.	0.132546
F-statistic	5.545960	Durbin-Watson stat	2.283948
Prob(F-statistic)	0.007679		

Source: Researchers' computation (2023), using E-views 7.0

The ECM results in Table 5, meet the required criteria with a coefficient of less than -1, which is -0.248625 and a significant probability value of 0.0038 less than 5% level of significance. However, the coefficient of -0.248625 implies that the contemporaneous adjustment to long run equilibrium after a temporary disequilibrium is about 24%, which indicates that a short-run disequilibrium procedure can be adjusted to a long-run equilibrium. Consequently, there is short run equilibrium relationship between LEXRATE, LINFRATE and LMCAP.

Table 6: Ordinary Least Square Result for LEXRATE, LINFRATE and LMCAP with Autocorrelation

Dependent Variable: LMCAP

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LEXRATE	2.806537	0.435142	6.449708	0.0000
LINFRATE	-1.384572	0.554767	-2.495772	0.0219
C	-2.107488	2.240639	-0.940574	0.3587
R-squared	0.687850	Mean dependent var		8.935204
Adjusted R-squared	0.654992	S.D. dependent var		1.336961
S.E. of regression	0.785295	Akaike info criterion		2.480610
Sum squared resid	11.71708	Schwarz criterion		2.629388
Log likelihood	-24.28671	Hannan-Quinn criter.		2.515658
F-statistic	20.93411	Durbin-Watson stat		0.532138
Prob(F-statistic)	0.000016			

Source: Researchers' computation (2023), using E-views 7.0

The ordinary least square result in Table 6 shows evidence of autocorrelation, such that the Durbin Watson statistic of 0.532138 is less than 2. This indicates that the ordinary least square result is spurious and it is not adequate for inferential analysis. Furthermore, correction for autocorrelation was carried out using the Cochrane-Orcutt Iterative procedure.

Table 7: Ordinary Least Square (OLS) Result for LEXRATE, LINFRATE and LMCAP after Cochrane-Orcutt Iterative Estimation without Autocorrelation

Dependent Variable: LMCAP

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	11.73340	4.271143	2.747134	0.0138
LEXRATE	0.000455	0.657873	0.000692	0.9995
LINFRATE	-0.300976	0.169224	-1.778564	0.0932
AR(1)	0.894376	0.052923	16.89955	0.0000
R-squared	0.958675	Mean dependent var		9.067470
Adjusted R-squared	0.951382	S.D. dependent var		1.213556
S.E. of regression	0.267583	Akaike info criterion		0.370871
Sum squared resid	1.217214	Schwarz criterion		0.569828
Log likelihood	0.105852	Hannan-Quinn criter.		0.414050
F-statistic	131.4563	Durbin-Watson stat		2.302248
Prob(F-statistic)	0.000000			
Inverted AR Roots	.89			

Source: Researchers' computation (2023), using E-views 7.0

The ordinary least square Cochrane-orcutt iterative estimation in Table 7 is valid for analyses, due to the absence of autocorrelation with Durbin Watson statistic of 2.302248, which is approximately equal to 2.

The dependent variable showed high systematic fluctuation, given that R-squared and the adjusted R-squared are 95.8% and 95.1% respectively, which showed confirmative high variations between the variables, with high explanatory power. The result of LEXRATE showed a positive coefficient of 0.000455 and a positive t-statistic of 0.000692 with a probability value of 0.9995   0.05, which is not in line with our *a-priori* anticipation. While LINFRATE showed a negative coefficient of -0.300976 and a negative t-statistic of -1.778564 with a probability value of 0.0932   0.05, which conforms to our *a-priori* anticipation.

Test of Hypotheses

The hypotheses of this study is that exchange rate and inflation rate have no short run and long run connection with market capitalisation. Table 8 showed the test of hypotheses using the coefficient, t-statistic and p-value at 5% level of significance. However, with the probability values of 0.9995 0.05 and 0.0932   0.05 respectively. We accept the null hypotheses and therefore reject the alternative hypotheses.

Table 8: Summary result of the hypotheses

Variables	Coefficients	t- statistic	Prob.	Remarks
LEXRATE	0.000455	0.000692	0.9995	Accept H_0
LINFRATE	-0.300976	-1.778564	0.0932	Accept H_0

Source: Extracted from Table 7

Exchange rate and inflation rate have insignificant connection with market capitalisation.

Discussion of Findings

The study examined the short run and long run connection of exchange rate, inflation rate and market capitalisation. The findings of the Johansen co-integration and the error correction model revealed short run and long run equilibrium connections between exchange rate and market capitalisation. Furthermore, the ordinary least square Cochrane-orcutt iterative result showed positive and insignificant connection between exchange rate and market capitalisation, which implies that the continuous depreciation of the naira to the dollar would have positive and inconsequential influence on the Nigerian capital market at both the short and long run. However, this result does not conform to our *a-priori* anticipation of a negative influence on market capitalisation, which is not in line with the Minsky's financial instability hypothesis, which stipulates that the capital market could move from stability to instability when there is continuous depreciation in exchange rate, which tends to have adverse influence on the Nigerian capital market. The result is consistent with the findings of Eneisik, Ogbonnaya and Onuoha (2021);

Okwu and Obiakor (2011) with positive and insignificant relationship in empirical findings. However, the findings contradicts the results of Osigwe, Okechukwu and Onoja (2015) with a negative and significant relationship in empirical findings. Furthermore, the findings of the Johansen co-integration and the error correction model revealed short run and long run equilibrium connection between inflation rate and market capitalisation. However, the ordinary least square Cochrane-orcutt iterative result revealed negative and insignificant connection between inflation rate and market capitalisation, which implies that the continuous increase in the rate of inflation would adversely but insignificantly influence the Nigerian capital market at both the short and long run, which conforms to our *a-priori* anticipation of a negative influence on market capitalisation. Consequently, the findings is in line with the Minsky's financial instability hypothesis, which stipulates that the capital market could move from stability to instability when there is continuous increase in inflation rate, which tends to have adverse influence on the Nigerian capital market. The result is consistent with the findings of Irefin and Yaaba (2012); Akinwunmi and Adekoya (2016); Onoja (2015) with negative and insignificant relationship in empirical findings. However, the findings contradicts the results of Usman and Adejare (2012); Umeora (2013) which showed positive and significant results in the empirical findings.

Policy Implications

This study found out that the continuous increase in the rate of inflation has been detrimental to sustainable performance of the capital market in Nigeria. The result has important policy implications for policy institutions, implying that controlling inflation is a necessary condition for promoting capital market performance. However, institutions of policy makers should focus on maintaining inflation at a low rate (single digit). Stability in inflation rate is an important factor as the results from the findings indicated that about 95 percent of the variations in market capitalisation have been explained by inflation. This implies that the adverse instability in inflation rate would have significant impact on the performance of the capital market.

5.0 Conclusion

The result of the study revealed short run and long run connection between exchange rate and market capitalisation. In addition, exchange rate showed positive and insignificant connection to market capitalisation, which implies that the continuous depreciation of the naira to the dollar would positively have inconsequential influence on the Nigerian capital market at both the short run and long run situation. This result infers that the performance of the Nigeria capital market have not been due to exchange rate depreciation. Furthermore, the result also revealed short run and long run connection between inflation rate and market capitalisation.

However, a negative and insignificant connection was observed between inflation rate and market capitalisation, which implies that the continuous increase in the rate of inflation would adversely but insignificantly influence the Nigerian capital market at both the short run and long run bases. This result concludes that the adverse performance of the Nigeria capital market have been due to the continuous increase in inflation rate.

Recommendations

Based on the conclusion, we recommend:

i. For government to ensure that all relevant policy institutions should be active and effective in making regular systemic inflation checks and appropriate inflation policy innovations, to ensure that financial market induced performance are built around effective capital market system.

ii. That all factors which causes an increase in inflation such as exchange rates volatility, increase in money supply and poor agricultural production should be addressed with the appropriate policies so as to encourage performance of the capital market.

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