

THE INTERNATIONAL JOURNAL OF BUSINESS & MANAGEMENT

Stock Market-Growth Relations in Nigeria (1984-2016)

Dr. Ayodeji, Emmanuel A

Senior Lecturer, Department of Banking and Finance, Afe Babalola University, Nigeria

Awoniyi, C. Laoye

Ph.D. Student, Department of Banking and Finance, Afe Babalola University, Nigeria

Abstract:

The study investigated the dynamic and direction of causal relationship between stock market variables and economic growth in Nigeria within a temporal scope 1984-2016. As such, two research hypotheses were tested, these are: no form of dynamic relationship exists between stock market variables and economic growth in Nigeria; and, there is no direction of causal relationship between stock market variables and economic growth in Nigeria. On the theoretical framework of McKinnon-Shaw hypothesis, which led to the finance-growth theory, the study adopted the model in line with that of Ayodeji and Ajala (2010); and as such, proxied economic growth by gross domestic product, and the stock market by its seven key variables, which are market capitalization, all-share index, number of listed equities, number of deals, value of deals, volume of transactions and stock market turnover. Accordingly, time-series data were sourced from the capital market bulletins of the Nigerian Securities and Exchange Commission and annual reports and accounts of the Nigerian Stock Exchange. These were estimated using both Johansen co-integration test and auto regressive distributed lag model to test for long-run relationship, and error correction model to test for short-run relationship in the context of the first research hypothesis. Meanwhile, Pair-wise Granger causality test was employed to test the second research hypothesis. The study found a significant long-run relationship and an insignificant short-run relationship between stock market variables and economic growth in Nigeria. It also found a unidirectional causal relationship between stock market and economic growth in Nigeria. It was, therefore, concluded that, stock market development has perceptible influence on economic growth in the long-run as the engine of long-term growth; and as such, the study confirmed the McKinnon-Shaw hypothesis, thus supporting the finance-growth theory. The study, therefore, recommended that, government should prevent capital flight so that the needed capital funds for long-term productive investments can be retained in the economy. Not only that, the listing requirements of the Nigerian Stock Exchange should be reviewed downward to encourage more companies to get listed, so that more companies can tap into the available public capital that are required for long-term investments that can boost the country's gross domestic product. Also, fund mismatch should be avoided by listed companies so that capital funds required for long-term investments are not committed into short-term projects, thus achieving efficiency in the utilization of available public capital for long-term investments that would maximize long-term profits and/ or returns, and thus increase the country's national income. Finally, government should intensify its efforts on anti-corruption struggle so that capital funds which could have engendered growth are not siphoned.

Keywords: Stock market, economic growth, listed companies, finance-growth theory

1. Introduction

Stock market is one of the two divisions of a capital market, which comprises stock market and bond market. The former is a market where equities of listed companies are bought and sold, whether as new issues or existing stocks. The latter, however, is a market where debt instruments of listed companies and governments are traded, whether as new or existing securities; such instruments include debentures, corporate bonds, government bonds, and government development loan stock. While equities confer ownership and/ or membership rights on their holders, debts confer creditors' rights on their holders. Accordingly, equity holders are members of the company, and as such, they possess voting rights (i.e. the right to vote at general meetings of the company); they also possess economic right of participation in the surplus profits of the company; and the return on their investments is dividend or capital appreciation. Nevertheless, debt-holders are creditors of the company, not members; and as such, they do not possess the economic right to participate in the surplus profits of the company; and the return on their investments is interest.

As a direct consequence of the ownership rights and status which equities confer on their holders, more emphasis is placed on them than debt instruments; thus, capital market is more of equities than of bonds. Even, in Nigeria, this is evidenced by the market capitalization of equities (i.e. stock market capitalisation) that is always more than the market capitalisation of bonds (i.e. bond market capitalisation). Accordingly, the stock market provides more of the capital needs of firms. It provides the long-term funds, raised through equities, for development purposes. Thus, the stock market provides a means by which the capital needed for efficient and effective growth in the economy is made available. This is why it is regarded as an essential tool for economic growth and development.

The platform, which the stock market provides listed companies for mobilizing the much-needed capital for their long-term investment needs, encourages the surplus spending units to save and earn returns, thereby creating more wealth for them (Okodua & Ewetan, 2013). This is the financial intermediation function of the stock market by which it moves both the savers (surplus spending units) and the borrowers (deficit spending units) from their current endowment position close to utility maximization, thereby increasing their wealth. By this, the surplus spending units earn return on their investments in the form of dividends or capital gain, and the long-term funds mobilized by the deficit spending units are committed into productive investments, which would yield returns; and as such, the national income of the economy (from the standpoint of income) is increased, leading to economic growth (Ayodeji, 2011).

The productive capacity of a nation is enhanced by the capital funds mobilized from the stock market, thus increasing its gross domestic product, i.e. national income (from the standpoint of output). Also, the earnings strength of the nation is boosted by the wealth creation opportunity that the stock market offers both the surplus and deficit spending units, thus increasing the national income (from the standpoint of income). Accordingly, Okodua and Ewetan (2013) noted that, the performance of the stock market is often considered an essential barometer for measuring a country's economic strength and development. Thus, the active stock market provides the parameters or indices for measuring the performance of an economy with respect to changes in the general level of economic activities.

The nexus between stock market and economic growth is enshrined in the McKinnon-Shaw hypothesis, which states, among other things, that, stock market development promotes economic growth through the growth rate of savings and investments. This hypothesis has been transformed into the finance-growth theory. Drawing inference from this, Sule and Ocheja, (2009) asserted that, the stock market has been identified as an institution that contributes to the economic growth of emerging economies; it is also considered as a variable in explaining the economic growth in the most-developed ones. This assertion portends that, the performance of the stock market goes a long way in determining the performance of the economy, much more in emerging economies than in developed ones. This is due to the fact that, developed economies have already attained economic growth and development, and their problem is that of sustainable development (i.e. how to sustain their development. To validate this theoretical postulation, several authors conducted empirical investigations, and found a nexus between stock market and economic growth in various jurisdictions. However, some found a positive stock market-growth nexus, while others found negative stock market-growth relations.

Owolabi and Ajayi (2013) noted that, the proponents of positive stock market-growth nexus argued that, stock market aids economic growth through the mobilization and allocation of saving, risk diversification, liquidity creating ability and corporate governance improvement. However, little research attention has been given to the dynamic relationship between stock market and economic growth as well as the direction of causal relationship between the two variables. Dynamic relationship, in this sense, refers to long-run as well as short-run relationships between two variables. Studies which considered stock market-growth dynamic relationship include those of Ibrahim and Aziz (2003), Sule and Ocheja (2009), Maku and Atanda (2010), Bayar, Kaya & Yildirim (2014), and Osakwe and Ananwude (2017).

Also, there is dearth of literature on the direction of causal relationship between stock market variables and economic growth. Studies available, in this light, are few; but available in literature are the works of Fase and Abma (2003) and Boubakari and Jin (2010). These found a unidirectional causality between stock market and economic growth, running from the former to the latter. It was in these contexts that, this study was conducted to investigate the dynamic and direction of causal relationships between stock market variables and economic growth in Nigeria within a temporal scope 1984-2016. As such, two research hypotheses were tested, these are: no form of dynamic relationship exists between stock market variables and economic growth in Nigeria; and, there is no direction of causal relationship between stock market variables and economic growth in Nigeria.

2. Literature Review

2.1. Conceptual Clarification

Nyong, (1997) viewed stock market as a complex institution imbued with inherent mechanism through which long-term funds of the major sectors of the economy comprising households, firms, and government are mobilized, harnessed and made available to various sectors of the economy. An analysis of this definition suggests the following: The stock market is an institution within a domestic economy. This institution has an inherent mechanism for fund mobilization; such mechanism includes financial institutions, which are issuing houses, registrars, stockbrokers and stock exchanges. The funds mobilized are long-term in nature, as equities, which are traded in this market are irredeemable, having no maturity period, but can be transferred from one person to another in the secondary market (i.e. the stock exchange). Funds are mobilized from the surplus spending units, which comprise households, firms and governments; and the mobilized capital funds are made available for productive use of various sectors of the economy, which include commerce, industry, mines and agriculture. Implicitly, such productive investments are capable of increasing the Gross Domestic Product (GDP) of the country; and when the rate of increase in GDP rises, it results in economic growth.

However, Adigwe, Nwanna and Ananwude (2015) defined stock market as a market which deals in long-term loans. It supplies firms with fixed and working capital, and finances medium-term and long-term borrowings of the federal, states and local governments. A critical review of this definition shows that, it confuses stock market with stock exchange and bond market. Whereas the stock exchange is an institutional framework where existing equities and debt instruments are traded, the stock market is a medium, a means or a market where new and existing equities are traded; but the bond market is the market or forum where debt instruments are bought and sold.

The definition under review, however, portends the following: First, the stock market deals in long-term loans. This is suggestive of trading in debts or debt instruments, whereas the stock market deals in equities and its derivatives. Second, firms raise both fixed and working capital from the stock market; however, it should be noted that, as long-term capital (i.e. fixed capital) is raised from the stock market, working capital is raised from the money market. Not only that, any attempt to use long-term funds to meet working capital requirements would be tantamount to funds mismatch, which betrays sound financial management practice. Third, the three tiers of government (i.e. federal, state and local governments) can raise medium and long-term funds from the stock market; however, it should be noted that, governments cannot raise funds from the stock market, as government bonds and development loan stocks are not traded in the stock market but in the bond market, though the stock exchange provides platform for trading in existing bonds and equities. Not only that, medium-term funds are not raised from the stock market, as securities traded in this market do not have maturity period; but the ones traded in the bond market are tenured if they are redeemable; generally, government bonds are redeemable, but corporate bonds and debentures could be redeemable or irredeemable. However, the stock market is said to contribute to economic growth through efficient and effective performance of its financial intermediation functions. These are long-term capital funds mobilization, creation of liquidity of equity instruments, and wealth creation for both investors and borrowers: for, borrowers are expected to commit the borrowed funds into productive investments that would generate returns to increase shareholders' wealth. This accounts for why Levine (1991) asserted that, stock market provides liquidity, contributes to capital formation and investment risk reduction by offering opportunities for portfolio diversification. To buttress this point, Bencivenga, Smith and Starr (1996) stated that, without liquid capital market, there would be no industrial revolution. This is because savers would be less willing to invest in large, long-term projects that characterized the early phase of industrial revolution.

Economic growth, however, is defined as the expansion in a nation's real output. Some economists, however, prefer to define economic growth as the expansion in a nation's capability to produce the goods and services its people want. Economic growth refers to an increase in real aggregate output (real GDP) reflected in increased real per capita income. A country is said to experience economic growth if, overtime, its real output (real GDP) increases as well as its real per capita income. The rate of economic growth is measured as the percentage increase in real GDP overtime. We need to distinguish between growth in real GDP and economic growth. Growth in real GDP refers to increase in real GDP on yearly basis. Economic growth, on the other hand, shows sustained increase in real GDP over a period (Accounting Technician Scheme West Africa {ATSWA}, 2009). In like manner, Lipsey and Chrystal (2011) defined economic growth as the positive trend in the nation's total real output or GDP over the long-term. They further asserted that, economic growth is the country's most powerful engine for generating long-term increase in living standards. Throughout most of the nineteenth and twentieth century's, per capita GDP rose steadily, while its distribution became somewhat less unequal. As a result, the citizens of the countries in the European Union, USA, and Japan became materially better off, decade by decade, and children typically were substantially better off, on average, than their parents were at the same age.

2.2. Theoretical Framework

The theoretical bone of this research work is the finance-growth theory, which started out as McKinnon-Shaw hypothesis. The theory states that, financial liberalisation and stock market development would promote economic growth through their effects on the growth rate of savings, investment, and thus economic growth. McKinnon (1973) and Shaw (1973) argued that, the repressed financial markets (low and administered interest rates, domestic credit controls, high reserve requirements and concessional credit practices) discourage savings, retards the efficient allocation of resources, increases the segmentation of financial markets, constrains investments and lowers the economic growth rate.

According to Okodua and Ewetan (2013), Shaw in 1973 and McKinnon in 1973, both of the financial repressionist school, developed a hypothesis called the McKinnon-Shaw hypothesis. The hypothesis provided that, financial liberalisation is a vehicle for promoting economic growth as long as it allows for an appropriate rate of return on real cash balances. The implication of this is that, a negative or low real interest rate discourages savings. If this hypothesis turns out true, available loanable funds for investment will be significantly reduced and this will lead to lower economic growth. Tracing the historical development of this hypothesis, Yadirichukwu and Chigbu (2014) stated that, the finance-growth theory of the relationship between capital/ stock market and economic growth dates back to the work of Schumpeter in 1911, which explained that, a well-developed financial system can facilitate technological innovation and economic growth through the provision of financial services and resources to investors. This postulation was independently advanced by McKinnon (1973) and Shaw (1973), and thus became McKinnon-Shaw hypothesis. This hypothesis or, better still, theory is a policy analysis tool for developing countries, which aim at achieving economic growth, with strong recommendation to place high priority on the efficiency of financial systems in facilitating capital accumulation and financial intermediation.

In his own account, Briggs (2015) pointed out that, McKinnon in 1973 and Shaw in 1973 pioneered the view that, financial liberalisation and financial sector development are essential for growth. They argued that, the deregulation of the capital markets increases economic growth through higher savings rates and improved resource allocation. Similarly, Ogunrinola and Motilewa (2015) noted that, the link between stock market and economic growth pivots on the major strand of finance-growth hypothesis of Schumpeter in 1932 and McKinnon in 1973 with an insight into how financial intermediation facilitates economic growth.

2.3. Empirical Review

Ibrahim and Aziz (2003) investigated the dynamic relationship between stock prices and macroeconomic variables in Malaysia. The study considered four macroeconomic variables against stock prices; these are industrial

production, money supply, consumer price index, and exchange rate. It employed secondary data and analysed them using co-integration tests and vector auto regression. The study found that, stock prices have positive long-run relationships with industrial production and consumer price index, and negative long-run relationships with exchange rate and money supply in Malaysia. It also found a significant short-run relationship between the four macroeconomic variables and economic growth in Malaysia.

Also, Abu (2009) examined the effects of stock market development on economic growth in Nigeria within a temporal scope 1981-2007. The study relied on secondary data, which were sourced from the Central Bank of Nigeria (CBN) statistical bulletins of various editions. While gross domestic product was used as the proxy for economic growth, market capitalization-GDP ratio, turnover-GDP ratio and all-share index were used to proxy stock market performance. Adopting error correction model as the estimation technique, the study found that, stock market development (market capitalization-GDP ratio) increases economic growth, and recommended the removal of impediment to stock market development such as tax, legal and regulatory barriers. Further to this, Sule and Ocheja (2009) studied the impact of stock market earnings on per capita income in Nigeria within a time dimension 1980-2007. The study used per capita income as the proxy for the income of the average Nigerian; and stock market capitalization, price earnings ratio, dividend yield, and number of listed securities were used to proxy stock market performance. Its sourced time-series data from the Securities and Exchange Commission database and the International Monetary Fund (IMF)/ World Bank database. Using Johansen co-integration test and error correction model to analyse data, the study found that, while the activities in the secondary capital market, in Nigeria, had positive impact on per capita income, such an impact was absent from the primary capital market.

Moreover, Maku and Atanda (2010) investigated the long-run macroeconomic determinants of stock market performance in Nigeria within a time lag of 1984 to 2007. The study employed Nigerian Stock Exchange (NSE) index, that is, all-share index, to proxy stock market performance in Nigeria, while it considered the following macroeconomic variables: exchange rate, consumer price index, treasury bills rate, money supply, and real output growth. Time series data, with respect to those proxies, were estimated using Augmented Engle-Granger (AEG) co-integration test of long-run relationship. The study found that, stock market performance, in Nigeria, was significantly influenced by macroeconomic variables in the long-run. It, also, found that, all-share index was more sensitive to variations in exchange rate, inflation rate, money supply, and real output than treasury bills rate. It, further, found that, macroeconomic variables had long-run concurrent and significant effects on stock market performance in Nigeria. Additionally, and comparatively, Osakwe and Ananwude (2017) examined the effects of stock market development on economic growth, within the period 1981-2015, in Nigeria and South Africa. The study sourced time series data from World Bank development indicators of both countries, and analysed them using Auto Regressive Distributed Lag (ARDL) co-integration technique. It found that, the equilibrium long-run relationship, that exists between stock market development and economic growth in Nigeria, is absent from South Africa. It also found a short-run relationship between stock market development and economic growth in both countries. Not only that, it found an insignificant positive relationship between stock market development and economic growth in Nigeria and South Africa.

However, Fase and Abma (2003) assessed the relationship between financial development and economic growth in nine emerging economies in East-Asia within a sample period covering at least 25 years, but varying across countries. Time-series data of the said varying length were obtained from relevant secondary sources in those countries, and were analysed using Granger causality test. The study found that, financial development matters for economic growth, and that, a unidirectional causality exists between financial development and economic growth in the emerging economies of East-Asia, running from the level of financial structure to economic growth.

More so, Boubakari and Jin (2010) investigated the casual relationship between stock market and economic growth in five Euronext countries (Belgium, France, Portugal, Netherlands and United Kingdom) within a temporal scope 1995-2008. The study sourced quarterly time-series data for those periods. It took market capitalisation, total trade value and turnover ratio as stock market indices or indicators. Gross domestic product was taken as the proxy for economic growth, and foreign direct investment was used as a control variable. The study employed Granger causality test, which was developed by Clive William John Granger in 1969 as the estimation technique, and found that, stock market had significant positive causal relationship with economic growth in countries with efficient and liquid stock markets, while it had no significant causal relationship with economic growth in countries having inefficient and less liquid stock markets. Combinatorial, Bayar *et al* (2014) examined the effects of stock market development on economic growth of Turkey within a time frame 1999-2013. The study used gross domestic product to proxy economic growth; and stock market capitalization, total value of stock traded, and turnover ratio of stock traded to proxy stock market development. It employed time-series data on these proxies, and estimated them using Johansen-Juliusco-integration test and Granger causality test. The study found a long-run relationship between the three proxies of stock market development and gross domestic product. It, also, found a unidirectional causality between stock market development and economic growth, running from stock market capitalization to economic growth, total value of stock traded to economic growth, and turnover ratio of stock traded to economic growth. As such, it concluded that, stock market performance significantly positively affects economic growth in the long-run.

3. Methodology

Ex-post facto research design was adopted in this study. The dependent variable, economic growth, was proxied by gross domestic product; and the independent variable, stock market was represented by its seven key variables, which are: market capitalization, all-share index, number of listed equities, number of deals, value of deals, value of transactions

and stock market turnover. This was in line with the finance-growth model developed by Ayodeji and Ajala (2018), which portends that, gross domestic product, is a function of, or is dependent on, the seven-key capital/ stock market variables. The model is functionally and econometrically stated respectively below:

$$GDP = f (MCAP, ASI, NLE, NOD, VOD, VTRAN, SMT) \tag{1}$$

$$GDP = \beta_0 + \beta_1MCAP + \beta_2ASI + \beta_3NLE + \beta_4NOD + \beta_5VOD + \beta_6VTRAN + \beta_7SMT + \mu \tag{2}$$

By this, GDP is Gross Domestic Product, MCAP is Stock Market Capitalisation, ASI is All Share Index, NLE is Number of Listed Equities, NOD is Number of Deals, VOD is Value of Deals, VTRAN is Value of Transactions, and SMT is Stock Market Turnover.

Secondary data, with respect to gross domestic product and the seven key stock market variables, were sourced from the capital market bulletins of the Nigerian Securities and Exchange Commission, and the annual reports and accounts of the Nigerian Stock Exchange. These covered a period beginning 1984 and ending 2016. The collected data were estimated in relation to the research hypotheses. Thus, to test the first hypothesis, Johansen co-integration test of long-run relationship was employed; and for robustness, Auto Regressive Distributed Lag (ARDL) model was used to confirm the test results. Not only that, error correction model was employed to test for the existence of short-run relationship between stock market and economic growth. Then, to test the second hypothesis, Pair-wise Granger Causality test was employed. Howbeit, the ARDL model for this study is presented thus:

$$\begin{aligned} \ln Gdp_t = & \beta_0 + \sum_{i=1}^n \beta_{1i} \Delta \ln Gdp_{t-1} + \sum_{i=0}^n \beta_{2i} \Delta \ln Mcap_{1t-1} + \sum_{i=0}^n \beta_{3i} \Delta \ln Asi_{2t-1} + \sum_{i=0}^n \beta_{4i} \Delta \ln Nle_{3t-1} \\ & + \sum_{i=0}^n \beta_{5i} \Delta \ln Nod_{4t-1} + \sum_{i=0}^n \beta_{6i} \Delta \ln Vod_{5t-1} + \sum_{i=0}^n \beta_{7i} \Delta \ln Vtran_{6t-1} + \sum_{i=0}^n \beta_{8i} \Delta \ln Smt_{7t-1} + \beta_9 \ln Gdpp_{t-1} + \beta_{10} \ln Mcap_{t-1} \\ & + \beta_{12i} \Delta \ln Asi_{t-1} + \sum_{i=0}^n \beta_{13i} \Delta \ln Nle_{t-1} + \beta_{14} \ln Nod_{t-1} + \beta_{15} \ln Vod_{t-1} + \beta_{16} \Delta \ln Vtran_{t-1} + \sum_{i=0}^n \beta_{17i} \Delta \ln Smt_{t-1} + \epsilon_{1t} \end{aligned}$$

Where: Δ is the difference operator. The test involves conducting F-test for joint significance of the coefficients of lagged variables for the purpose of examining the existence of a long-run relationship between the variables. The null hypothesis of 'no long-run relationship', that is, $H_0: \beta_9 = \beta_{10} = \beta_{11} = \beta_{12} = \beta_{13} = \beta_{14} = \beta_{15} = \beta_{16} = 0$, was examined following Pesaran et al (2001). The decision to reject or accept H_0 is based on the following conditions: if F-value > upper bound, then reject H_0 , as the variables are co-integrated; if F-value < lower bound, then accept H_0 , as the variables are not co-integrated, but if F-value is greater or equal to lower bound and lessor equal to upper bound, then the decision is inconclusive.

The a priori expectation, for the first hypothesis, is that, a long-run relationship should exist between stock market variables and economic growth in Nigeria, as medium to long-term capital (funds) are mobilized from the stock market for long-term investments, which should engender long-term economic growth. Also, the a priori expectation for the second hypothesis, is that, stock market variables should granger-cause economic growth, and not that economic growth should granger-cause stock market variables, as the finance-growth theory portends a one-way causal relationship between finance and growth, running from the former to the latter.

4. Results and Findings

This section presents the results of three preliminary tests of stationarity, heteroskedasticity and serial correlation. It, also, presents the results and findings from the tests of hypotheses.

4.1. Phillip Perron (PP) Test for Stationary

The study employed Phillip-Perron (PP) test to check for the order of integration of variables in the series whether they are stationary at level I(0), first difference I(1) or second difference I(2). The null hypothesis of Phillip-Perron test states that, the series is non-stationary, having unit roots, while its alternate hypothesis states that, the series is stationary, having no unit roots. The summary of results of the Phillip-Perron (PP) test is presented in Table 1, below. The results show that, all the variables in the series were not stationary at level, but became stationary at first difference, when their respective p-values are less than 0.05, that is, 5% level of significance; thus, indicating that, the series had no unit roots. As such, the null hypothesis of the Phillip-Perron test was rejected, and its alternate hypothesis was accepted.

Variables	At level				1st Difference				Comment
	ADJ	Criti-V	Lag	P-Value	ADF	Criti-V	Lag	P-Value	
LGDP	-1.6696	-2.9571	2	0.4366	-5.2701	-2.9604	2	0.0002	I(1)
LMCAP	-1.4799	-3.6707	2	0.5547	-4.4006	-2.9171	2	0.0005	I(1)
LASI	-2.4964	-2.9591	2	0.1257	-3.9836	-2.9604	2	0.0045	I(1)
LVOD	-0.9722	-2.9571	2	0.7511	-4.5011	-2.9604	2	0.0012	I(1)
LVTRAN	-4.506	-2.9571	2	0.4506	-5.9608	-2.964	2	0	I(1)
LNLE	-2.5549	-2.9571	2	0.1127	-3.9518	-3.5806	2	0.012	I(1)
SMT	-2.5473	-3.5628	2	0.305	-6.2409	-4.296	2	0.0001	I(1)
NOD	-2.8912	-3.5806	2	0.1801	-7.286	-3.5875	2	0	I(1)

Table 1: Summary of Phillip-Perron Test Results
Source: Author's Computation, 2018

4.2. Breusch Pagan Normality Test for Heteroskedasticity

This test is a preliminary test conducted to ascertain if the series under investigation is free from heteroskedasticity. The presence of heteroskedasticity implies that, the residuals in the series have more than one variance, that is, the residuals have no constant variance. This can invalidate statistical tests of significance in the application of regression analysis, including vector auto regression and co-integration tests. Hence, the null hypothesis of the Breusch Pagan normality test states that, the series is free from heteroskedasticity, that is, there is no heteroskedasticity, thus assuming homoscedasticity, while the alternate hypothesis assumes heteroskedasticity, that is, there is more than one variance.

The decision rule is that, if the p-value is less than 0.05, the null hypothesis is rejected, as it infers the presence of heteroskedasticity, and the alternate hypothesis is accepted; but if the p-value is greater than 0.05, the null hypothesis is retained, as it infers that, there is no presence of heteroskedasticity. Table 2, below, which presents the Breusch Pagan normality test results, shows that, the corresponding p-value, of the F-statistic of 0.474546, is 0.9178, which is greater than 0.05. This implies that, there is no presence of heteroskedasticity in the distribution of residuals. Therefore, the null hypothesis, which states that, the series is free from the presence of heteroskedasticity, is retained. This finding indicates that, any statistical test of significance conducted on the relationship between stock market and economic growth, in Nigeria, is valid.

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	0.474546	Prob. F(16,12)	0.9178
Obs*R-squared	11.23832	Prob. Chi-Square (16)	0.7945
Scaled explained SS	1.272763	Prob. Chi-Square (16)	1

Table 2: Summary of Breusch Pagan Test Results

Source: Author's Computation, 2018

4.3. Breusch Godfrey Serial Correlation Lm Test

For the ascertainment of the presence of autocorrelation (i.e. serial correlation), the study adopted Breusch Godfrey serial correlation LM test. The decision rule is that, if the p-value of the corresponding f-statistic is less than 0.05, there is presence of autocorrelation, but if it is greater than 0.05, there is no autocorrelation. Accordingly, the null hypothesis states that, the series has no serial correlation, while the alternate hypothesis states that, the series has serial correlation. From Table 3, below, which is the summary of Breusch Godfrey serial correlation LM test results, it can be obtained that, the p-value, of the corresponding F-statistic of 1.161018, is 0.383, which is greater than 0.05; hence, the series is free from autocorrelation; as such, the null hypothesis was retained and the alternate hypothesis was rejected.

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	1.161018	Prob. F (7,14)	0.383
Obs*R-squared	10.65148	Prob. Chi-Square(7)	0.155

Table 3: Summary of Breusch Godfrey Serial Correlation LM Test Results

Source: Author's Computation, 2018

4.3.1. Test of Hypothesis 1

Research Hypothesis 1, of this study, states that, no form of dynamic relationship exists between stock market and economic growth in Nigeria. To test this hypothesis, the following estimation techniques were employed: Johansen co-integration test and Auto Regressive Distributed Lag (ARDL) bound testing for investigating long-run relationship, and Error Correction Model (ECM) for investigating short-run relationship between the dependent and independent variables.

4.4. Johansen Co-Integration Test for Long-Run Relationship

Table 4, below, shows the results of the test for long-run relationship between the variables in the series, using Johansen co-integration test. The test was used to examine the combined movements of variables in a series in the long-run. This was done by comparing the results of the trace statistic with those of the Eigen value. From Table 4, below, it is obtainable that, there are eight co-integration vectors from trace statistics, and five co-integration vectors from Eigen Value. This is evidenced by the eight (8) p-values of the hypothesized number of co-integration equations (CEs) for trace statistic, from 'None' to 'At most 7'; which are less than 0.05, that is, 5% level of significance. These are 0.0000, 0.0000, 0.0000, 0.0002, 0.00034, 0.0192, 0.0076, and 0.0026 respectively. It is further evidenced by the five (5) p-values of the hypothesized number of co-integration equations (CEs) for Maximum Eigen value at 'None', 'At most 1', 'At most 2', 'At most 3', and 'At most 7', which are less than 0.05, that is, 5% level of significance. These are 0.0000, 0.0000, 0.0006, 0.0413 and 0.0026 respectively. By these substantial proofs, it is obtainable that, there exists a long-run relationship between stock market and economic growth in Nigeria.

To confirm this deduction, looking further at Table 4, below, results of the trace statistic test are greater than those of Maximum Eigen value both at the statistic level and critical value at 5% level of significance (0.05), from 'None' to 'At most 6', but these results are equal at the point 'At most 7'. At the statistic level, it is obtainable that, 340.9674 > 109.6642 (None), 231.3032 > 83.27275 (At most 1), 148.0304 > 54.68445 (At most 2), 93.34597 > 34.56902 (At most 3), 58.77695 > 25.52246 (At most 4), 33.25449 > 12.59218 (At most 5), 20.66230 > 11.62195 (At most 6); but, 9.040355 = 9.040355 (At most 7). At 0.05 critical level, it is obtainable that, 159 5297 > 52.36261 (None),

125.6154 > 46.23142 (At most 1), 95.75366 > 40.07757 (At most 2), 69.81889 > 33.87687 (At most 3), 47.85613 > 27.58434 (At most 4), 29.79707 > 21.13162 (At most 5), 15.49471 > 14.26460 (At most 6); but, 3.841466 = 3.841466 (At most 7). The implication of these results is that, stock market has a long-run effect on economic growth in Nigeria.

Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.982779	340.9674	159.5297	0.0000
At most 1 *	0.954232	231.3032	125.6154	0.0000
At most 2 *	0.868052	148.0304	95.75366	0.0000
At most 3 *	0.722056	93.34597	69.81889	0.0002
At most 4 *	0.611428	58.77695	47.85613	0.0034
At most 5 *	0.372729	33.25449	29.79707	0.0192
At most 6 *	0.349779	20.66230	15.49471	0.0076
At most 7 *	0.284539	9.040355	3.841466	0.0026
Unrestricted Co-integration Rank Test (Maximum Eigenvalue)				
Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.982779	109.6642	52.36261	0.0000
At most 1 *	0.954232	83.27275	46.23142	0.0000
At most 2 *	0.868052	54.68445	40.07757	0.0006
At most 3 *	0.722056	34.56902	33.87687	0.0413
At most 4	0.611428	25.52246	27.58434	0.0897
At most 5	0.372729	12.59218	21.13162	0.4904
At most 6	0.349779	11.62195	14.26460	0.1257
At most 7 *	0.284539	9.040355	3.841466	0.0026

Table 4: Summary of Johansen Co-Integration Test Results
Unrestricted Co-Integration Rank Test (Trace)
Source: Author's Computation, 2018

4.5. Auto Regressive Distributed Lag (ARDL) Bound Testing for Long-Run Relationship

To be doubly sure of the existence of long-run relationship between stock market and economic growth in Nigeria, the ARDL bound testing approach was also applied. This approach is used when the order of integration of the variables employed is at level $I(0)$ or first difference $I(1)$ or at different orders, such as $I(0)$ and $I(1)$. The results of bound testing approach, in Table 5, show that, the F-statistic of the variables, 4.813686, is greater than the test critical values at lower bound (I0 bound) of 2.32 and upper bound (I1 bound) of 3.5 at 5% level of significance. Since the F-statistic is greater than the test critical values at both lower and upper bounds, it is evident that, there exists co-integration, that is, long-run relationship between stock market and economic growth in Nigeria. As such, the null hypothesis of the ADRL of 'no long-run relationship' was rejected, and the alternate hypothesis of 'existence of long-run relationship' was accepted.

Test Statistic	Value	K
F-statistic	4.813688	7
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	2.03	3.13
5%	2.32	3.5
2.50%	2.6	3.84
1%	2.96	4.26

Table 5: Summary of Auto Regressive Distributed Lag Bound Testing Results
Source: Author's Computation, 2018

4.6. Error Correction Model

Table 6, below, depicts the summary of Error Correction Model (ECM) results, which indicates the speed of adjustment of disequilibrium of variables as they move in the long-run. Particularly, ECM is run on co-integrated variables that are jointly moving on a long-run; however, these variables may drift away in a short-run; therefore, ECM shows the degree of speed of adjustment in the short-run. To determine this, the ECM results have to show a negative sign coefficient with a significant p-value, which is less than 0.05.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DLMCAP	0.838814	0.229251	3.658927	0.0019
DLASI	-0.086762	0.203475	-0.426403	0.6752
DLNLE	-0.180589	0.573579	-0.314845	0.7567
DLNOD	-0.055814	0.092833	-0.60123	0.5556
DLVOD	-0.015343	0.093535	-0.164034	0.8716
DLVTRAN	-0.004041	0.031521	-0.128201	0.8995
DSMT	-0.019386	0.003666	-5.288313	0.0001
ECM(-1)	-0.396123	0.257208	-1.540088	0.1419
C	0.019002	0.04218	0.450486	0.6581
R-squared	0.747997	Mean dependent var		0.206514
Adjusted R-squared	0.629407	S.D. dependent var		0.198955
S.E. of regression	0.121116	Akaike info criterion		-1.11671
Sum squared resid	0.249376	Schwarz criterion		-0.68121
Log likelihood	23.51717	Hannan-Quinn criter.		-0.9913
F-statistic	6.307431	Durbin-Watson stat		1.870803
Prob(F-statistic)	0.000727			

Table 6: Summary of Error Correction Model (ECM) Results

Source: Author's Computation, 2018

Accordingly, the ECM results in Table 6, above, show that, ECM had a negative coefficient of -0.3961, but with a corresponding insignificant p-value of 0.1419, which is greater than 0.05, that is, 5% level of significance. The indication of this is that, there exists an insignificant short-run relationship between stock market and economic growth in Nigeria; and the speed at which equilibrium is corrected is at 39.61% annually.

Criterion	Johansen Co-integration Test	Auto Regressive Distributed Lag (ARDL) Bound Testing	Error Correction Model
5% level of significance/ coefficient	Trace statistics greater than Maximum-Eigen value	F-statistic greater than test critical value	A negative coefficient, which is required for short-run relationship
P-value	8 significant p-values from trace statistic, and 5 significant p-values from Eigen value	NA	Insignificant p-value
Decision	Evidence of co-integration	Evidence of co-integration	Evidence of insignificant short-run relationship

Table 7: Summary Table of Tests of Research Hypothesis 1

Source: Author's Compilation, 2018

From Table 7, above, the two estimation techniques adopted for long-run relationship are Johansen co-integration test and ARDL bound testing approach. Results emanating from the two estimation techniques are similar, leading to the same findings. For, they (both) showed evidence of co-integration, that is, long-run relationship, between stock market and economic growth in Nigeria. However, the error correction model indicates an insignificant short-run relationship between stock market and economic growth in Nigeria. Therefore, the study rejected the null hypothesis, which states that, no form of dynamic relationship exists between stock market and economic growth in Nigeria, and accepted the alternate hypothesis.

4.6.1. Test of Hypothesis 2

Research Hypothesis 2, of this study, states that, there is no direction of causal relationship between stock market and economic growth in Nigeria. To test this hypothesis, Pair-wise Granger causality test was employed.

4.7. Pair-Wise Granger Causality Test

The study employed Pair-wise Granger causality test to investigate causal relationship between stock market and economic growth in Nigeria for the period 1984-2016. To establish the causal relationship, the decision rule is that, if the F-statistic of the Granger causality test is less than 3.84, the null hypothesis of 'no causal relationship' should be retained; meaning, no causal relationship; but when the F-statistic is greater than 3.84, the alternate hypothesis should be accepted; meaning, there is causal relationship. Using the p-value criterion, the decision rule is that, if the p-value of the Granger causality test is less than 0.05, that is, 5% level of significance, the null hypothesis should be rejected, as there exists a causal relationship between the independent and dependent variables of interest; but if the p-value is greater than 0.05, that is, 5% level of significance, the null hypothesis should be retained, as there exists no causal relationship between the independent and dependent variables of interest.

From Table 8, below, which displays the summary of Granger causality test results, it can be obtained that, unidirectional causal relationship runs as follows: First, from market capitalization to gross domestic product (i.e. MCAP-GDP) with a p-value of 0.0439, which is less than 0.05, and F-statistic of 3.948112, which is greater than 3.84; hence, the null hypothesis, which states that market capitalization does not granger-cause gross domestic product, was rejected, and the alternate hypothesis was accepted. Second, from market capitalization to value of deals (i.e. MCAP -VOD) with a p-value of 0.0101, which is less than 0.05, and F-statistic of 5.6046, which is greater than 3.84; therefore, the null hypothesis, which states that, market capitalization does not granger-cause value of deals, was rejected, and the alternate hypothesis was accepted.

Third, from number of listed equities to all-share index (NLE-ASI) with a p-value of 0.0227, which is less than 0.05, and F-statistic of 4.3929, which is greater than 3.84. As a result, if this, the null hypothesis, which states that, number of listed equities does not granger-cause all-share index, was rejected, and the alternate hypothesis was accepted. Fourth, from all-share index to value of deals (i.e. ASI-VOD) with a p-value of 0.0061, which is less than 0.05, and F-statistic of 6.24069, which is greater than 3.84; hence, the null hypothesis, which states that all-share index does not granger-cause value of deals, was rejected, and the alternate hypothesis was accepted. Fifth, from all-share index to value of transactions (i.e. ASI-VTRAN) with a p-value of 0.0027, which is less than 0.05, and F-statistic of 7.51074, which is greater than 3.84; therefore, the null hypothesis, which states that, all-share index does not granger-cause value of transactions was rejected, and the alternate hypothesis was accepted.

Sixth, from stock market turnover to all-share index (i.e. SMT-ASI) with a p-value of 0.0411, which is less than 0.05, but having F-statistic of 3.63697, which is less than 3.84. At any rate, with the overriding effect of the p-value, the null hypothesis, which states that, stock market turnover does not granger-cause all-share index was rejected, and the alternate hypothesis was accepted. Seventh, from number of listed equities to volume of deals (i.e. NLE-VOD) with a p-value of 0.0095, which is less than 0.05, and an F-statistic of 5.59738, which is greater than 3.84. As a direct consequence of these, the null hypothesis, which states that, number of listed equations does not granger-cause value of deals, was rejected, and the alternate hypothesis was accepted. Eighth, from stock market turnover to number of deals (i.e. SMT-NOD) with a p-value of 0.0459, which is less than 0.05, but with an F-statistic of 3.55617, which is less than the threshold of 3.84. At any rate, because of the overriding effect of the p-value, the null hypothesis, which states that, stock market turnover does not granger-cause number of deals, was rejected, and the alternate hypothesis was accepted.

On the whole, it is evident that, the only stock market variable that granger-caused gross domestic product (i.e. the economic growth proxy) is market capitalization. However, as a direct consequence of the overriding effect of market capitalization among stock market variables, there is evidence of unidirectional causal relationship between stock market and economic growth in Nigeria, which runs from stock market (through market capitalization) to economic growth. Therefore, the second overall null hypothesis, which states that, there is no direction of causal relationship between stock market and economic growth, was rejected, and the alternate hypothesis was accepted.

Null Hypothesis	Obs	F-Statistic	Prob.	Decision	Causality
LMCAP does not Granger Cause LGDP	29	3.948112	0.0439	Accept H1	Uni-Directional
LGDP does not Granger Cause LMCAP		0.39567	0.6775	reject Ho	no causality
LASI does not Granger Cause LGDP	31	0.19208	0.8264	reject Ho	no causality
LGDP does not Granger Cause LASI		0.07063	0.932	reject Ho	no causality
LNLE does not Granger Cause LGDP	31	0.85512	0.4368	reject Ho	no causality
LGDP does not Granger Cause LNLE		1.30741	0.2877	reject Ho	no causality
LNOD does not Granger Cause LGDP	27	2.82347	0.081	reject Ho	no causality
LGDP does not Granger Cause LNOD		0.50262	0.6117	reject Ho	no causality
LVOD does not Granger Cause LGDP	31	1.2121	0.3138	reject Ho	no causality
LGDP does not Granger Cause LVOD		1.45756	0.2512	reject Ho	no causality
LVTRAN does not Granger Cause LGDP	31	1.89544	0.1704	reject Ho	no causality
LGDP does not Granger Cause LVTRAN		0.13332	0.8758	reject Ho	no causality
SMT does not Granger Cause LGDP	30	0.36579	0.6973	reject Ho	no causality
LGDP does not Granger Cause SMT		1.15596	0.331	reject Ho	no causality
LASI does not Granger Cause LMCAP	29	0.55978	0.5786	reject Ho	no causality
LMCAP does not Granger Cause LASI		0.40415	0.672	reject Ho	no causality
LNLE does not Granger Cause LMCAP	29	2.79374	0.0811	reject Ho	no causality
LMCAP does not Granger Cause LNLE		0.98485	0.3881	reject Ho	no causality
LNOD does not Granger Cause LMCAP	27	1.85143	0.1807	reject Ho	no causality
LMCAP does not Granger Cause LNOD		1.4614	0.2536	reject Ho	no causality
LVOD does not Granger Cause LMCAP	29	1.01653	0.3769	reject Ho	no causality

Null Hypothesis	Obs	F-Statistic	Prob.	Decision	Causality
LMCAP does not Granger Cause LVOD		5.6046	0.0101	Accept H1	Uni-Directional
LVTRAN does not Granger Cause LMCAP	29	2.15571	0.1377	reject Ho	no causality
LMCAP does not Granger Cause LVTRAN		2.20942	0.1316	reject Ho	no causality
SMT does not Granger Cause LMCAP	29	1.80261	0.1865	reject Ho	no causality
LMCAP does not Granger Cause SMT		1.98696	0.159	reject Ho	no causality
LNLE does not Granger Cause LASI	31	4.3929	0.0227	Accept H1	Uni-Directional
LASI does not Granger Cause LNLE		0.40479	0.6712	reject Ho	no causality
LNOD does not Granger Cause LASI	27	0.87079	0.4326	reject Ho	no causality
LASI does not Granger Cause LNOD		1.69014	0.2076	reject Ho	no causality
LVOD does not Granger Cause LASI	31	2.90256	0.0728	reject Ho	no causality
LASI does not Granger Cause LVOD		6.24069	0.0061	Accept H1	Uni-Directional
LVTRAN does not Granger Cause LASI	31	2.16086	0.1355	reject Ho	no causality
LASI does not Granger Cause LVTRAN		7.51074	0.0027	Accept H1	Uni-Directional
SMT does not Granger Cause LASI	30	3.63697	0.0411	Accept H1	Uni-Directional
LASI does not Granger Cause SMT		1.74685	0.1949	reject Ho	no causality
LNOD does not Granger Cause LNLE	27	0.83765	0.4461	reject Ho	no causality
LNLE does not Granger Cause LNOD		0.93721	0.4068	reject Ho	no causality
LVOD does not Granger Cause LNLE	31	0.89175	0.4221	reject Ho	no causality
LNLE does not Granger Cause LVOD		5.59738	0.0095	Accept H1	Uni-Directional
LVTRAN does not Granger Cause LNLE	31	1.15896	0.3295	reject Ho	no causality
LNLE does not Granger Cause LVTRAN		2.95094	0.07	reject Ho	no causality
SMT does not Granger Cause LNLE	30	0.09093	0.9134	reject Ho	no causality
LNLE does not Granger Cause SMT		3.0377	0.0659	reject Ho	no causality
LVOD does not Granger Cause LNOD	27	0.65554	0.529	reject Ho	no causality
LNOD does not Granger Cause LVOD		0.78553	0.4683	reject Ho	no causality
LVTRAN does not Granger Cause LNOD	27	1.76614	0.1944	reject Ho	no causality
LNOD does not Granger Cause LVTRAN		0.06075	0.9412	reject Ho	no causality
SMT does not Granger Cause LNOD	27	3.55617	0.0459	Accept H1	Uni-Directional
LNOD does not Granger Cause SMT		1.85985	0.1794	reject Ho	no causality
LVTRAN does not Granger Cause LVOD	31	2.25062	0.1255	reject Ho	no causality
LVOD does not Granger Cause LVTRAN		0.54426	0.5867	reject Ho	no causality
SMT does not Granger Cause LVOD	30	2.38975	0.1123	reject Ho	no causality
LVOD does not Granger Cause SMT		1.81608	0.1835	reject Ho	no causality
SMT does not Granger Cause LVTRAN	30	2.48522	0.1037	reject Ho	no causality
LVTRAN does not Granger Cause SMT		1.93001	0.1662	reject Ho	no causality

Table 8: Summary of Granger Causality Test Results
Source: Author's Computation, 2018

5. Discussion of Findings

In relation to dynamic relationship between stock market and economic growth in Nigeria, the findings of this study are such that, there exists a long-run relationship between stock market and economic growth, and an insignificant short-run relationship exists between stock market and economic growth in Nigeria. The implications of these are: First, the mobilization of long-term funds, for productive investments, from the stock market would have an imperceptible short-term effect on economic growth in Nigeria, as it would take a relatively long time before the performance of the stock market can be felt on the economy. Second, the relationship between stock market and economic growth should be a long-term one, as long-term funds mobilized from the stock market are to be committed into long-term projects, assets and investments that would yield benefits in the long-term (i.e. distant future). Thus, the findings of this study affirmed those of the previous authors, whose works found evidence of long-run (or long-term) relationship between stock market performance and economic growth in Nigeria and the rest of the world. These authors include: Ibrahim and Aziz (2003), Abu (2009), Sule and Ocheja (2009), Maku and Atanda (2010), Bayar *et al* (2014), and Osakwe and Ananwude (2017).

With respect to the direction of causal relationship between stock market and economic growth in Nigeria, the finding of this study confirms and supports the finance-growth theory that emanated from McKinnon-Shaw hypothesis, as it found a unidirectional causality between stock market and economic growth, such that causality runs from the former to the latter, and not in the other way round. This is at tune with the findings that emanated from the works of Fase and Abma (2003), Boubakari and Jin (2010), and Bayar *et al* (2014): for, they individually found that, stock market performance granger-caused economic growth. The reason adducible to this finding is that, finance is the engine of growth or, better still, long-term finance is the engine of long-term growth: for, the long-term capital fund, required for productive investments that would lead to economic growth, are, often, provided by the stock market.

6. Conclusion and Recommendations

On Research Hypothesis 1, which states that, no form of dynamic relationship exists between stock market and economic growth in Nigeria, the *a priori* expectation is such that, a long-run relationship should exist between stock market and economic growth, as long-term capital (funds) are mobilized from the stock market for long-term investments, which should engender long-term economic growth. Accordingly, the study found a long-run relationship between stock market and economic growth in Nigeria; however, it also found an insignificant short-run relationship between stock market and economic growth in Nigeria. So, to this extent, the study concluded that, stock market has perceptible influence on economic growth in the long-run.

On Research Hypothesis 2, which states that, there is no direction of causal relationship between stock market and economic growth in Nigeria, the *a priori* expectation is that, stock market variables should granger-cause economic growth, and not that, economic growth should granger-cause stock market variables. Correspondingly, the study found that, a unidirectional causality exists between stock market and economic growth in Nigeria, running from market capitalization to gross domestic product (i.e. the proxy for economic growth). So, to this extent, it was concluded that, stock market is the engine of long-term growth. As such, this study confirms the McKinnon-Shaw hypothesis, thus supporting the finance-growth theory.

It was, therefore, recommended that, government should prevent capital flight so that the needed capital funds for long-term productive investments can be retained in the economy. Not only that, the listing requirements of the Nigerian Stock Exchange should be reviewed downward to encourage more companies to get listed, so that more companies can tap into the available public capital that are required for long-term investments that can boost the country's gross domestic product. Also, fund mismatch should be avoided by listed companies so that capital funds required for long-term investments are not committed into short-term projects, thus achieving efficiency in the utilization of available public capital for long-term investments that would maximize long-term profits and/ or returns, and thus increase the country's national income. Finally, government should intensify its efforts on anti-corruption struggle so that capital funds which could have engendered growth are not siphoned.

7. References

- i. Abu, N. (2009). Does stock market development raise economic growth: Evidence from Nigeria? *Journal of Banking and Finance*, 1(1), 15-26
- ii. Accounting Technician Scheme West Africa {ATSWA} (2009). *Economics, Part I Study Pack, Second Edition*. A Publication of the Association of Accountancy Bodies in West Africa, Lagos: ABWA Publishers Akintola
- iii. Adigwe, P. K., Nwanna, I. O., & Ananwude, A. (2015). Stock market development and economic growth in Nigeria: An empirical Examination (1985-2014). *Journal of Policy and Development Studies*, 9 (5), 134-154
- iv. Ayodeji, E. A. (2011). *Principles of Portfolio Management*, Lagos: Emboss Publishers, Foyo Associates Limited.
- v. Ayodeji, E. A., & Ajala, R. B. (2018). Capital market performance and economic growth in Nigeria (1984-2016). *Journal of Advances in Social Science and Humanities*, 4(11), 362-378
- vi. Bayar, Y., Kaya, A., & Yildirim, M. (2014). Effects of stock market development on economic growth: Evidence from Turkey. *International Journal of Financial Research*, 5(1), 93-100.
- vii. Bencivenga, V.R., Smith, B.D., & Starr, R.M. (1996). Liquidity of secondary capital markets: Allocative efficiency and the maturity composition of the capital stock. *Economic Theory*, 7(1), 19-50
- viii. Boubakari, A., & Jin, D. (2010). The role of stock market development in economic growth: Evidence from some Euronext countries. *International Journal of Financial Research*, 1(1), 4023- 4031
- ix. Briggs, A. P. (2015). Capital market and economic growth of Nigeria. *Research Journal of Finance and Accounting*, 6 (9), 82-93
- x. Fase, M.M.G., & Abma, R.C.N. (2003). Financial environment and economic growth in selected Asian countries. *Journal of Asian Economies*, 14, 11-21
- xi. Ibrahim, M. H., & Aziz, H. (2003). Macroeconomic variables and Malaysian equity market: A view through rolling subsamples. *Journal of Economics Studies*, 30(1), 6-27
- xii. Jhingan, M. L. (2004). *The Economics of development and planning*: New Delhi, Vrinda Publications Limited
- xiii. Levine, R. (1991). Stock markets, growth and tax policy. *Journal of Finance*, 64(4), 1445-1465
- xiv. Lipsey, R., & Chrystal, A. (2011). *Economics, Twelfth Edition*, New York: Oxford University Press Inc.
- xv. Maku, O. E., & Atanda, A. A. (2010). Determinants of stock market performance in Nigeria. *Journal of Management and Organizational Behaviour*, 1(3), 1-16
- xvi. McKinnon, R. I. (1973). *Money and Capital in Economic Development*. Washington, DC: Brookings Institution. N.S.E. (2012) Annual Report

- xvii. Nyong, M.O. (1997). Capital market development and long-run economic growth: Theory, evidence and analysis. *First Bank Review*, 13-38
- xviii. Ogunrinola, I. I., & Motilewa, B. D. (2015). Stock market liquidity and economic growth in Nigeria (1980 to 2012). *Journal of Economics and International Business Management*, 3(6), 1-13
- xix. Okodua, H., & Ewetan, O. (2013). Stock market performance and sustainable economic growth in Nigeria: A bounds testing co-integration approach. *Canadian Centre of Science and Education Journal of Sustainable Development*, 6(8), 84-92
- xx. Osakwe, C. I., Ananwude, A. C. (2017). Stock market development and economic growth: A comparative evidence from two emerging economies in Africa- Nigeria and South Africa. *Achieves of Current Research International*, 11(1), 1-15
- xxi. Owolabi, A., & Ajayi, N. O. (2013). Econometrics analysis of impact of capital market on economic growth in Nigeria (1971-2010). *Asian Economic and Financial Review*, 3(1), 99-110
- xxii. Shaw, E. S. (1973). *Financial deepening in economic development*, New York: Oxford University Press.
- xxiii. Sule, K. O., & Ocheja, M. C. (2009). The impact of stock market earnings on Nigerian per capita income. *African Journal of Accounting, Economics, Finance and Banking Research*, 5(5), 77-88
- xxiv. Yadirichukwu, E., & Chigbu, E. E. (2014). The impact of capital market on economic growth: The Nigerian perspective. *International Journal of Development and Sustainability*, 3(4), 839-847