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STOCK MARKET DEVELOPMENT AND ECONOMIC GROWTH IN NIGERIA: AN EMPIRICAL EXAMINATION (1985-2014)

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Abstract

This study examined the effect of stock market development on Nigeria's economic growth. The objective of the study was to determine if stock market development significantly impact on the country's economic growth. Secondary data were employed for the study covering 1985 to 2014. Ordinary Least Square (OLS) econometric technique was used for the time series analysis in which variations in economic growth was regressed on market capitalisation ratio to GDP, value of stock traded ratio to GDP, trade openness and inflation rate. The analysis revealed that stock market has the potentials of growth inducing, but has not contributed meaningfully to Nigerian economic growth, since only 26.5% of variations in economic growth were explained by the stock market development variables. Based on this, the study suggests for an encouragement of more investors in the market, improvement in the settlement system and ensuring investors' confidence in the market.

Key words: Economic Growth, Gross Domestic Product, Stock Market Development

INTRODUCTION

The achievement of a high sustainable level of economic growth and development has been the main objective of many countries, most especially after the publication of the famous book "an enquiry into the nature and causes of wealth of a nation" by Smith (1776). The search for ways to improve the level of economic growth has encouraged researchers to develop different models and theories in a bid to explain the phenomenon of economic growth. Economists traditionally have looked at factors such as capital, labour and technology as the only factors which matter to the process of economic growth. Mckinnon and Shaw (1973), King and Levine (1993), Beck, Levine and Loayza (2000) among others have argued that stock market development spurs economic growth. On the other hand, Bossone (2000), and Tsuru (2000), Levine (1997) and Gertler (1988) stressed that economic growth can be affected by functions exercised by stock

market such as mobilising capital, assisting in the allocation of resources, monitoring managers, and facilitating risk management.

However, with recent developments in the economic growth theory, there has been a shift in the focus of growth literature from the traditional factors (capital, labour and technology) to other factors that might also contribute to the growth process. These other factors include financial and stock market development, macroeconomic environment, political stability and foreign direct investment (FDI), among others. Stock market development provides a platform that helps in improving the allocation of capital and thus enhancing the prospects of long-term economic growth. A liquid stock market development offers the potential for investors to quickly and cheaply alter their portfolios thereby reducing the riskiness of their investment, thus, facilitating investments in projects that are more profitable (Ezeabisili & Alajekwe, 2012). Without a liquid stock market, many profitable long-term investments would not be undertaken because savers would be reluctant to tie up their investments for long periods of time (Okonkwo, Ogwuru & Ajudua, 2014).

Beck and Levine (2002) observed that a well-functioning stock market fosters growth and profit incentives and also helps in risk management. It has also been observed that more developed market may provide liquidity that lowers the cost of the foreign capital essential for development, especially in low income countries that cannot generate sufficient domestic savings (Bencivenga, Smith and Stair 1996).

A well-functioning stock market fosters growth and profit incentives and helps in risk management more efficiently than the bank-based system does (Levine, 2002 and Beck and Levine, 2002). Bencivenga, Smith and Starr (1996) expounds theoretically that a more developed stock market may provide liquidity that lowers the cost of the foreign capital essential for development, especially in low-income countries that cannot generate sufficient domestic savings. Levine and Zervos (1998), Demirguc-Kunt and Levine (1996) and Atje and Jovanovic (1993) envisaged that stock market development is vital for economic growth. The fluctuation of general stock market index expresses the level of economic growth, the degree of trade openness and the financial depth in a developing or developed country.

Mckinnon and Shaw (1973) hypothesised that financial liberalization and stock market development would promote economic growth through their effects on the growth rate of savings, investment, and thus economic growth. This hypothesis has been supported by Ezeabisili & Alajekwe (2012), Levine (2002), Khan (2000), Basci and Wang (1997), Montiel (1995) and Greenwood and Jovanovic (1990). On the other hand, Burkett (1987) and Buffie (1984) argue that the stock market development may not affect economic growth. This is conflicting as Allen & Gale (1999), Boyd & Prescott (1986) and Stiglitz (1985) claimed that banking sector development can play an important role in promoting economic growth, as banks are better than stock markets when it comes to resource allocation. It is against these identified inconsistencies that this study is been conducted.

In view of this contradiction, the objective of the study is to determine if stock market development has significant effect on Nigerian economic growth within the period 1985 to 2014.

Consequently the directional hypothesis is that stock market development has no significant effect economic growth in Nigeria.

CONCEPTUAL AND THEORETICAL ISSUES

Concept of Stock Market

The stock market is a market which deals in long term loans (Jhingan, 2004). It supplies firms with fixed and working capital and finance medium term and long term borrowings of the federal, states and local governments. Thus, the stock market encompasses of institutions and mechanisms through which medium term funds and long term funds are pooled and made available to corporate entities and governments. The stock market has been recognised as an institution that contributes to the socio-economic growth and development of emerging and developed economies. Donwa and Odia (2010) noted that this is made possible through some vital roles played, such as channelling resources, promoting reforms to modernize the financial sectors, financial intermediation capacity to link deficit to surplus sector of the economy, and a veritable tool in the mobilization and allocation of savings among competitive uses which are critical to the growth and efficiency of the economy. Levine (1991) suggested that stock market activities spurs economic growth basically in two ways. First, stock markets make property changes possible in the companies, whilst not affecting their productive process. Second, stock markets offer higher possibilities of portfolio diversification to the agents.

Traditional Characteristics of the Nigeria Stock Market

The traditional characteristics of a stock market's development are concerned with basic measures of its growth, including the number of listed companies and market capitalisation. These traditional characteristics provide the background for apprehending the measures used in evaluating stock market development. They are discussed briefly below.

Market Size

The size of market capitalization and its growth rates are indicators of market size and performance. Market size is also measured by the market capitalization ratio, which is defined as the value of shares listed divided by GDP. The essence of the market capitalization ratio is that the size of the market should be positively correlated with the ability to mobilize capital and diversify risk in an economy (Demirguc-Kunt & Levine, 1995).

The number of listed companies and their growth rates are also measures of market size. The number of listed securities in the Nigerian Securities Market increased from 220 in 1985 to 253 in 2014, the period covered by the study. The total market capitalization also grew steadily from 1986 to 1994. As Table 1 shows, it rose from ₦6,600 million in 1985 to ₦13,181,700 million in 2007 and further to ₦19,077,400 million in 2013. However, it declined to ₦16,875,100 million in 2014. In the continent of Africa, the Nigerian Stock Exchange is ranked second after South Africa in terms of market size.

Table 1: Market Capitalization, Market Capitalization Ratio to GDP and Total Securities Listed on the Nigerian Stock Exchange, (1985 – 2014)

Year	Market Capitalization ₦'Million	Market Capitalization Ratio to GDP (%)	Total Securities Listed
1985	6,600.0	4.90	220
1986	6,800.0	5.05	240

1987	8,200.0	4.25	244
1988	10,000.0	3.80	253
1989	12,800.0	3.35	267
1990	16,300.0	4.96	295
1991	23,100.0	4.23	239
1992	31,200.0	3.56	251
1993	47,500.0	4.36	272
1994	66,300.0	4.74	276
1995	180,400.0	6.20	276
1996	258,800.0	7.09	276
1997	281,900.0	6.73	264
1998	262,600.0	6.58	264
1999	300,000.0	6.41	268
2000	472,300.0	7.03	260
2001	662,500.0	9.61	261
2002	764,900.0	9.81	258
2003	1,359,300.0	13.71	265
2004	2,112,500.0	18.51	277
2005	2,900,100.0	19.85	288
2006	5,120,900.0	27.58	294
2007	13,181,700.0	63.81	310
2008	9,563,000.0	39.36	301
2009	7,030,800.0	28.36	266
2010	9,918,200.0	18.30	264
2011	10,275,300.0	16.24	250
2012	14,800,900.0	20.79	256
2013	19,077,400.0	23.78	254
2014	16,875,100.0	18.95	253

Source: Nigeria Stock Exchange publications of various issues.

Liquidity

Generally, the liquidity of a stock market relates to the ease with which shares are traded in the market. Liquidity is measured by the ratio of the securities traded to the total national output, which is computed as: total value traded/GDP. The liquidity of the stock market as argued by Osinubi (2002), facilitates profitable interactions between the equity and the money market, since, with a liquid stock market, shares are accepted as collateral by banks for lending purposes, consequently increasing access to credit for growth. Similarly, Oke and Mokuolu (2004) highlighted liquidity as an important characteristic of a stock market and point to its ability efficiently to allocate capital as well as allowing investors to divest their assets easily. Total value traded ratio and turnover ratio are the two main measures of stock market liquidity. Table 2 shows the trend of the value traded on the Nigerian Stock Exchange within the period 1985 to 2014.

Table 2: Value of Stock Traded, Market Turnover Ratio and Value of Stock Traded Ratio to GDP on the Nigerian Stock Exchange, (1985 – 2014)

Year	Value of Stock Traded ₦'Million	Value of Stock Traded as Ratio to GDP (%)	Market Turnover Ratio
1985	316.6	0.24	4.80
1986	497.9	0.37	7.32
1987	382.4	0.20	4.66
1988	850.3	0.32	8.50
1989	610.3	0.16	4.77
1990	225.4	0.07	1.38
1991	242.1	0.04	1.05
1992	491.7	0.06	1.58
1993	804.4	0.07	1.69
1994	985.9	0.07	1.49
1995	1,838.8	0.06	1.02
1996	6,979.6	0.17	2.44
1997	10,330.5	0.25	3.66
1998	13,571.1	0.34	5.17
1999	14,072.0	0.30	4.69
2000	28,153.1	0.42	5.96
2001	57,683.8	0.84	8.71
2002	59,406.7	0.76	7.77
2003	120,402.6	1.21	8.86
2004	225,820.7	1.98	10.69
2005	262,935.8	1.80	9.07
2006	470,253.4	2.53	9.18
2007	1,076,020.4	5.21	8.16
2008	1,679,143.7	6.91	17.56
2009	685,717.3	2.77	9.75
2010	799.911.0	1.48	8.07
2011	638,925.7	1.01	6.22
2012	808,991.4	1.14	5.47
2013	2,350,875.7	2.93	12.32
2014	1,334.783.1	1.50	7.91

Source: Nigerian Stock Exchange publications of various issues.

Institutional Characteristics of the Nigeria Stock Market

According to Emenuga and Inanga (1997), the key elements of the institutional characteristics are regulations, information disclosure rules and accounting standards, settlement process, transactions costs, institutional barriers and market structure. Some of these elements are briefly discussed for understanding and assessing the level of development of the institutional characteristics of the Nigerian stock market

Regulations

The regulatory bodies in the Nigerian stock market are the Securities and Exchange Commission (SEC) which is responsible for the overall regulation of the stock market; Nigerian Stock

Exchange (NSE), a self-regulatory organization in Nigeria Stock Market that supervises the operations of the formal quoted market; Central Bank of Nigeria (CBN) and Federal Ministry of Finance. These regulatory bodies are designed to encourage savings mobilization and investment; promote efficiency in resource allocation; and improve opportunities for firms to secure long-term funds.

Information disclosure rules and accounting standards

Full disclosure of information by all market participants is a requirement of the SEC and the NSE. Participation in the market requires full compliance with the listing requirements. Of these listing requirements, the submission of financial statements is the most relevant for the purpose of valuing the shares of a company in the primary securities market. For the secondary securities market, the information to be made public by the listed companies is as required by the Companies Decree of 1968 and its 1988 amendment. By their provisions, quoted companies as well as other public limited liability companies are to make public their profit and loss accounts and balance sheet. The adequacy of information supplied by the Nigerian quoted companies for investors' use could therefore be viewed from the contents of these financial statements and their availability to investors (Emenuga & Inanga, 1997).

Transaction Cost

The level of transaction costs in a market relative to others is one measure of the efficiency of that market. Inefficient markets have high transaction costs relative to efficient markets. From the point of view of companies, transaction costs cover the various expenses in the course of public offer of equity or loan stock. Aside the cost of paying for solicitors, advertising, administration and auditors, the buying and selling charges on the Nigeria stock market could amount to something between approximately 1.8% to enter and complete a two-way transaction (buy and sell); it would come to a total was of 4.05% of the sum invested including the application, valuation, brokerage and the vending fees.

Institutional barriers and market structure

The Indigenization Decrees of 1972 and 1977 were the first legislation that restricted foreign investment in Nigeria. They limited the scope of foreign participation in enterprises to 40%. This provision was amended by the Nigerian Enterprises Promotion Decree No. 54 of 1989, which allowed 100% participation of foreigners in most enterprises. Foreign interest in banking/insurance, petroleum prospecting and mining is still restricted to a maximum of 40%. The Investment Securities Act of 1999 made it possible for the participation of foreign nationals and opened the way for the inflow of foreign direct investment. There is no longer a limit on the amount of shareholding by foreign investors. The CEO of Nigerian Stock Exchange, Mr. Oscar Onyema, in an interview with Akintunde Akinleye of Reuters on the 10th of April, 2013 stated that foreign investor accounted for 41 percent of holdings on the NSE the domestic investors accounted for 59 percent of holdings in 2012, against 45 percent as at the end of 2011.

Economic Growth

Economic growth means an increase in the capacity of an economy to produce goods and services, compared from one period of time to another (Aiguh, 2013). Economic growth is a positive change in the output, or production, of a country or an economy. This description involves all aspects of an economy, from profits to taxes and wages, to such things as production rates. Considering the above description, it turns out that the only way of ascertaining economic growth would be to calculate it as a numerical value. Therefore, economic growth can be calculated as a percentage increase in the Gross Domestic Product of a given economy.

However, the above calculation in itself may not reflect the real situation in the given economy. The economic growth of a country is directly related to the economic state of affairs of the said country which consist of various variables like index of industrial production, inflation rate, money supply, exchange rate, private investment, foreign direct investment and many others which are considered to be backbone of any economy. One of the key contributors to economic growth is technology. Improved technology leads to increased production, which means more wages and more profits for employees and investors respectively. Changes or advancements in technology have been credited with much of the steps that the world economy has made so far. Another contributor that is perhaps worth taking note of would be globalization. Globalization has led to expanded markets, more opportunities for employment as well as investment, and more efficiency due to competition.

Stock Market Development and Nigeria Economic Growth

The Mckinnon and Shaw (1973) hypothesis asserts the positive effect of stock market development on economic growth. Efficient and effective operation of the stock market is expected to boost economic growth by way of providing opportunity to raise domestic savings and increasing investments in qualitative and quantitative terms (Singh,1997). Stock market provides mechanism that enables the encouragement of domestic savings through the provision of individuals and corporate entities with some supplementary financial instruments that are capable of meeting their risk preference and liquidity needs (Levine & Zervos, 1998). The Nigeria Stock Market has not only made funds available for investment but also resourcefully distributed these funds to projects of best returns to providers of funds mostly via dividend and appreciation in stock prices. The market is very relevant to the economic growth of Nigeria because it provides a transmission path for government monetary policy; monitoring managers and exerting corporate control and facilitating financial risk management.

According to Aiguh, (2013), the Nigeria Stock Market has impacted on Nigeria's economic growth through the following under listed points:

- The stock market encouraged the inflow of foreign capital when foreign companies or investors invest in domestic securities.
- It reduces the over reliance of the corporate sector on short term financing for long term projects and also provides opportunities for government to finance projects aimed at providing essential amenities for socio-economic development.
- The stock market aid the government in privatization programme by offering her shares in the public enterprises to members of the public through the stock exchange.
- It has impacted positively by providing avenue for the marketing of shares and other securities in order to raise fresh fund for expansion of operations leading to increase production/output.
- The market provides means of allocating the nation real and financial resources between various sectors, industries and companies. Through the capital formation and allocation mechanism the market efficiently distributes the scarce resources for the optimal benefit to the economy.

THEORETICAL FRAMEWORK

In literature, many theories have been modelled relative to the positive effect of stock market development on economic growth. This study cautiously selected the Mckinnon-Shaw (1973) hypothesis which states that financial liberalization and stock market development would promote economic growth. We explored this hypothesis to apprehend its mechanism and

implication on economic growth by way of saving mobilization, efficient allocation of resources and investment patterns of individuals.

Mckinnon-Shaw (1973) Hypothesis

Mckinnon and Shaw (1973) hypothesis states that financial liberalization and stock market development would promote economic growth through their effects on the growth rate of savings, investment, and thus economic growth. McKinnon and Shaw (1973) argued that the repressed financial markets (low and administered interest rates, domestic credit controls, high reserve requirements and concessional credit practices) discourages savings, retards the efficient allocation resources, increases the segmentation of financial markets, constrains investment and in term lowers the economic growth rate. The essential message of the McKinnon-Shaw thesis is that a low or negative real rate of interest discourages savings and hence reduces the availability of loanable funds, constrains investment, and in turn lowers the rate of economic growth. On the other hand, an increase in the real interest rate may induce the savers to save more, which will enable more investment to take place and which would exert a positive effect on the economic growth. Bouzid (2012) noted that this idea was adopted by great international institutions such as the International Monetary Fund (IMF) and the World Bank.

Thus, many developing countries have implemented financial liberalization policies with the aim to delete the repressed regime. The financial liberalization policies were aimed at liberalizing interest rates by switching from an administered interest rate setting to a market-based interest rate determination; reducing controls on credit by gradually eliminating directed and subsidized credit schemes; developing primary and secondary securities markets; enhancing competition and efficiency in the financial system by privatizing nationalized commercial banks (Bouzid, 2012). In the McKinnon-Shaw hypothesis, the success of the financial liberalization process depends to the following hypothesis: the effective deepening of the financial sector, a positive correlation between the saving and the real interest rate, and a perfect complementarity between the money demand and investment (Bouzid, 2012).

EMPIRICAL REVIEWS.

Ovat (2012) examined the effect of stock market development on economic growth in Nigeria. The study disaggregated stock market development into stock market size and stock market liquidity with a view to providing evidence on the aspect of stock market development which is the main driver of growth in Nigeria. The applied several econometric techniques such as unit root test, co-integration and granger causality test, and the result revealed that stock market development contributes significantly to economic growth in Nigeria through the market liquidity based indicators: total value of shares traded ratio and turnover ratio.

The effect of stock market on economic growth in Nigeria was examined by Ohiomu & Enabulu (2011) using ordinary least square regression (OLS). They employed data from 1989 to 2008 and their result indicated that economic growth is positively affected by all the stock market development variables

Examining the impact of stock market on economic growth in Nigeria,
Edame, Okoro & Anne (2013) regressed annualized time series data & market variable and observed that stock market has positive and significant impact on economic growth in Nigeria between the period 1970-2010

On the other hand, the impact of the Nigerian Capital market on economic growth was determined by Kolapo and Adaramola (2012). They applied Johansen co-integretion and Granger Causality test (Using Gross Domestic Product as a proxy for economic growth and Capital Market variables such as market capitalization, Total New Issues of transactions and Total Listed equities and Government Stock) and observed that the activities in the stock market tend to impact positively on the economy.

Koirala (2011) assessed the impact of London Stock Exchange (LSE) in Gross Domestic Product (GDP) in United Kingdom. The study adopted multivariate regression analysis and the finding disclosed that market capitalization ratio has positive effect on gross domestic product.

Afolabi (2015) empirically ascertained the effect of the Nigerian Stock Market on the Nigerian economy from 1992 to 2011. The Nigerian Capital Market was proxy as Market Capitalization against some variables of the economy such as Gross Domestic Product (GDP), foreign direct investment, inflation rates, total new issues, value of transaction and total listing. Using the multiple regression analysis, he found that stock market has an insignificant impact on the economy within the period under review.

Wang and Ajit (2012) determined the impact of stock market development on economic growth in China. Quarterly data from 1996 to 2011 were used and the empirical investigation is conducted within the unit root and the co-integration framework. The result revealed that stock market development generally does not contribute positively to economic growth in developing countries if the stock market is mainly an administratively-driven market.

Nowbutsing and Odit (2009) assessed the impact of stock market development on growth in Mauritius. A time series econometric investigation was conducted over the period 1989 -20067. They analysed both the short run and long run relationship by constructing an ECM. Two measures of stock market development namely size and liquidity are used. They also define size as the share of market capitalization over GDP and liquidity as volume of share traded over GDP and found that stock market development positively affect economic growth in Mauritius both in the short run and long run.

Ikikii and Nzomoi (2013) evaluated stock market development effects on economic growth in Kenya, Quarterly time series data on gross domestic product, market capitalization and trade volume covering the years 2000 to 2011 were used. Empirical result suggested that stock market development measured by trade volume and/or capitalization impacts positively on the economic growth in Kenya.

Okoye and Nwisienyi (2013) studied the impact of stock market has on the Nigerian economy, using time series data for 10-year period; 2000 – 2010. The model specification for the analysis of data was multiple regression and ordinary least squares estimation techniques. The result depicted that there are significant relationship between all share index, market value and market capitalisation on GDP. This implies that the GDP is affected by the movement of the capital market's share index, market value and market capitalisation. In other words, the stock market has impacted significantly on the economy for the years under review.

Jibril, Salihi, Wambai, Ibrahim, Muhammad and Ahmad (2015) investigated the effect of Nigerian stock exchange market development on economic growth using a 20 year time series data from 1990-2010. The method of analysis was ordinary least square techniques. The stock market capitalization ratio was adopted as a proxy for market size while value traded ratio and turnover ratio were used as proxy for market liquidity. The study revealed that market capitalization and value traded ratio have a negative correlation with economic growth while turnover ratio has a strong positive correlation with economic growth.

Echekoba, Ezu and Egbunike (2013) examined the impact of stock market on the growth of Nigerian economy under a democratic rule. The study used time series data from 1999 to 2011 and multivariate regression model. They finding revealed that total market capitalization and all share index have positive effect on economic growth proxied by GDP.

Beck and Levine (2004) assessed the impact of stock markets and banks on economic growth using a panel data set for the period 1976 to 1998 and applying generalized method of moment technique developed for dynamic panel. The empirical result indicated that stock markets and banks positively influenced economic growth and these findings are not due to potential biases induced by simultaneity, omitted variables or unobserved country specific effects.

Fynn (2012) assessed the effect of the stock market primarily on economic growth using panel data from 1990-2010. The study applied Generalized Least Squares techniques for fixed effects with the exclusion of the subgroup 2005-2010 which uses random effects. The finding depicted that the effect of the stock market on growth is based on country-specific effects and varies in different time periods.

METHODS

The method of analysis of data applied in this study was succinctly influenced by the objectives of this study as well as the hypothesis stated. In the light of this, econometric and statistical method of data analysis was adopted. Ordinary least square (OLS) regression analysis by way of simple linear correlation analysis was adopted as the method for analysing the data. The study covered the time frame of 1985 to 2014. The secondary data casing the time frame were collected from the Central Bank of Nigeria (CBN) and Nigerian Stock Exchange (NSE) Annual Reports.

Model Specification

In formulating the model employed in this study, we carefully took into consideration the study objective, theoretical framework, and ample empirical verification along with the distinctiveness of the Nigerian environment. Gross Domestic Product (GDP) is the dependent variable and proxy for economic growth. This became imperative as the Mckinnon-Shaw (1973) hypothesis asserted that stock market development would promote economic growth through their effects on the growth rate of savings, investment, and thus economic growth. Two stock market development measures were selected based on the traditional characteristics of stock market: market size and liquidity. These indicators are stock market capitalization ratio to GDP and value of stock traded ratio to GDP. Inflation rate and trade openness reflected as the ratio of total imports and export to GDP are included in the models as control variables. Thus, the model is represented in a functional form as:

$$GDP = f(SMD + OPEN + IFR) \quad ---------- 3.1$$

The model is epitomized in a log-linear econometric construct to get hold of the coefficients of the elasticity of the variables, while lessening the probable effect that any outlier may have thus:

$$LogGDP_t = a_0 + a_1 LogSMD_t + a_2 LogOPEN_t + a_3 LogIFR_t + U_t \quad ---------3.2$$

Stock market capitalization ratio to GDP and value of stock traded ratio to GDP were regressed separately against Gross Domestic Product (GDP). This is to avoid the problem of multi-collinearity in stated model (Gujarati, 2004), thus:

Model 1

$$LogGDP_t = a_0 + a_1 LogMCR_t + a_2 LogOPEN_t + a_3 LogIFR_t + U_t \quad ---------3.3$$

Model 2

$$LogGDP_t = a_0 + a_1 LogVSTR_t + a_2 LogOPEN_t + a_3 LogIFR_t + U_t \quad ---------3.4$$

Where GDP = Gross Domestic Product; SMD = Stock Market Development; MCR = Market Capitalization Ratio to GDP; $VSTR$ = Value of Stock Traded Ratio to GDP; $OPEN$ = Trade Openness and IFR = Inflation Rate.

a_0 is a constant term, u is a random error/disturbance term and t is the time trend; these are normally included in standard time-series specifications to account for the omitted variables as well as unexplained random effects within the model.

Apriori Expectation

This refers to the supposed relationship between and/or among the dependent or independent variables of the models. On the premise of the Mckinnon-Shaw (1973) hypothesis, increase in stock market capitalization, value of stock trade and trade openness is expected to raise GDP. As a result, a positive relationship is expected to exist between stock market development and economic growth. On the other hand, an increase in inflation or general price level will decrease GDP. We thus expect a negative relationship between inflation rate and economic growth.

DISCUSSION OF RESULTS AND POLICY IMPLICATION

In analyzing the effect of stock market development on economic growth in Nigeria, the study applied the ordinary least square regression analysis and the result is presented in Table 3

The result in Table 3 unveiled that stock market development measure-market capitalization ratio is statistically significant at 1% level of significance. The coefficient of the constant 34,832,355 implies that holding market capitalization, trade openness and inflation rate constant, the gross domestic product will increase by ₦34,832,355 million. Market capitalization has a positive relationship with gross domestic product while trade openness and inflation rate exhibit negative relationship.

The market capitalization coefficient of 1,132,859.0 suggests that a percentage increase in market capitalization resulted in ₦1,132,859.0 million increase in gross domestic product, a proxy for economic growth within the period covered by the study. This supports the works of Oluitan and Anne (2013), Koirala (2011) and Nowbutsing and Odit (2009) that market capitalization ratio exert positive statistically significant effect on gross domestic product in Nigeria, United Kingdom and Mauritius respectively.

Table 3: Ordinary Least Square Regression Result for Model 1
Dependent Variable: Gross Domestic Product (GDP)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	34832355	11967301	2.910627	0.0073
MCR	1132859.	362329.6	3.126597	0.0043
OPEN	-729262.1	283763.7	-2.569963	0.0163
IFR	-185099.1	240527.7	-0.769554	0.4485
R-squared	0.376011	Mean dependent var		17623757
Adjusted R-squared	0.304012	S.D. dependent var		26070370
S.E. of regression	21749431	Akaike info criterion		36.75164
Sum squared resid	1.23E+16	Schwarz criterion		36.93847
Log likelihood	-547.2746	Hannan-Quinn criter.		36.81141
F-statistic	5.222472	Durbin-Watson stat		0.494290
Prob(F-statistic)	0.005893			

Source: Computer output data using E-views 8.0

It also agrees with the findings of Ezeabasili and Alajekwe (2012), Echekoba & Ezu (2013), Ohiomu & Enabulu (2011), Okoye & Nwisienyi (2013) and Edame and Okoro (2013) that market capitalization ratio is positively related to gross domestic product in Nigeria. However, it disagrees with Aiguh (2013) that market capitalization ratio is negatively related to economic growth.

The finding in Table 4 showed that stock market development measure-value of stock traded ratio is statistically significant at 5% level of significance. The coefficient of the constant 39,182,065 implies that holding value of stock traded ratio, trade openness and inflation rate constant, the gross domestic product will appreciate by ₦39,182,065 million. Value of stock traded ratio has a positive relationship with gross domestic product while trade openness and inflation rate exhibit negative relationship.

The value of stock traded ratio coefficient of 7,675,444 suggests that a percentage increase in market capitalization resulted in ₦7,675,444 million rise in gross domestic product, a proxy for economic growth within the period covered by the study. This upholds the findings of Jibril, Salihi, Wambai, Ibrahim, Muhammad and Ahmad (2015), Ohiomu & Enabulu (2011), Nowbutsing & Odit (2009) and Edame & Okoro (2013) on the positive effect of stock market liquidity on economic growth.

The average coefficient of the Adjusted R-squared in Table 3 and 4 revealed that only 26.5% of variations in economic growth were explained by the stock market development. Thus, 73.5% changes in economic growth of Nigeria were not explained by stock market development. This suggests that stock market development has not adequately impacted on Nigeria's economic growth. This affirms the empirical finding of Ezeabasili & Alajekwe (2012) that Nigeria stock market has the potentials of growth inducing, but has not contributed meaningfully to economic growth of Nigeria.

Table 4: Ordinary Least Square Regression Result for Model 2
Dependent Variable: Gross Domestic Product (GDP)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	39182065	12501647	3.134152	0.0042
VSTR	7675446.	3089495.	2.484369	0.0197
OPEN	-642046.9	295110.0	-2.175619	0.0389
IFR	-253049.6	250359.8	-1.010744	0.3215
R-squared	0.306120	Mean dependent var		17623757
Adjusted R-squared	0.226057	S.D. dependent var		26070370
S.E. of regression	22935161	Akaike info criterion		36.85781
Sum squared resid	1.37E+16	Schwarz criterion		37.04463
Log likelihood	-548.8671	Hannan-Quinn criter.		36.91757
F-statistic	3.823480	Durbin-Watson stat		0.357736
Prob(F-statistic)	0.021529			

Source: Computer output data using E-views 8.0

The critical value of F-distribution at 5% level of significance and 26 degree of freedom, i.e. F (4, 26) is 2.73. F-statistic calculated as divulged in Table 4.1 and Table 4.2 for model 1 and 2 are 5.22 and 3.82 respectively. These values are greater than tabulated F-statistic of 2.73, and by implication, the models are statistically significant and has a goodness of fit. Furthermore, the probability of the F-statistic are 0.005893 and 0.021529 for model 1 and 2 respectively, these values are less than 0.05 (5% level of significance).

The calculated Durbin Watson (d*) statistic for model 1 and 2 are 0.494290 and 0.357736 respectively. The tabulated Durbin Watson for lower limit (dL) and upper limit (du) are 1.062 and 1.759 respectively. The tabulated Durbin Watson are greater than calculated Durbin Watson (d*) and thus, the null hypothesis of no positive autocorrelation in the residuals could not be rejected. This suggests the presence of positive autocorrelation between gross domestic product and stock market development.

The regression results in Table 3 and 4 have demonstrated the positive effect stock market development on economic growth. This authenticates the Mckinnon-Shaw (1973) Hypothesis which envisaged that stock market development can foster economic growth through their effects on the growth rate of savings, investment, and thus economic growth. In addition, it authenticates the empirical studies of Wang and Ajit (2012), Koirala (2011) and Beck and Levine (2004) that stock market spurs economic growth.

The ordinary least square regression output in Table 3 and 4 indicated that stock market development has significant effect on economic growth. To this effect, the null hypothesis that stock market development has no significant effect on economic growth is rejected.

A Priori Expectation
The market capitalization ratio, value of stock traded ratio and inflation rate conformed to a priori expectation as they showed the expected signs. However, trade openness did not conform.

This may be connected with the fact that Nigeria is highly import dependent and the value of exports may not commensurate the worth of imports

Table 5: A Priori Expectation

Independent Variables	Expected Signs	Observed Signs	Remarks
Market Capitalization Ratio	+	+	Conformed
Value of Stock Traded Ratio	+	+	Conformed
Trade Openness	+	-	Does not Conformed
Inflation Rate	-	-	Conformed

CONCLUSION

Our empirical results indicate that economic growth is positively affected by stock market development proxied by market capitalization and value of stock traded ratio to GDP. This supports the argument that the stock market development in developing countries will contribute positively to economic growth.

RECOMMENDATIONS

On the basis of our findings, it is vivid that contributions of market capitalization and value of stock traded ratio to gross domestic product is very low. The stock market regulators should improve and encourage more investors (foreign, private and public) to participate in the market, maintain state of the art technology like automated trading and settlement system, electronic fund clearance and the continued dematerialization of physical transfer of shares. Furthermore, stock market regulators should ensure that investors have confidence in the market. This could be achieved by maintaining transparency and fairness in transaction, dealings in the stock exchange and safety of the investments.

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APPENDIX

GDP at current basic prices, Market Capitalization ratio, Value of Stock Traded ratio, trade Openness and Inflation Rate from 1985 to 2014

YEAR	GDP at Current Basic Prices ₦'Million	Market Capitalization as a Ratio of GDP (%)	Value of Stock Traded as a Ratio of GDP (%)	Total Export & Import as a ratio to GDP (%)	Inflation Rate (%)
1985	134,600.0	4.90	0.24	13.97	5.5
1986	134,600.0	5.05	0.37	11.07	5.4
1987	193,100.0	4.25	0.20	24.96	10.2
1988	263,300.0	3.80	0.32	19.98	38.3
1989	382,300.0	3.35	0.16	23.23	40.9
1990	328,600.0	4.96	0.07	47.35	7.5
1991	545,700.0	4.23	0.04	38.67	13.0
1992	875,300.0	3.56	0.06	39.85	44.5
1993	1,089,700.0	4.36	0.07	35.28	57.2
1994	1,399,700.0	4.74	0.07	26.35	57.0
1995	2,907,400.0	6.20	0.06	58.67	72.8
1996	4,032,300.0	7.09	0.17	46.43	29.3
1997	4,189,200.0	6.73	0.25	49.83	8.5
1998	3,989,500.0	6.58	0.34	39.84	10.0
1999	4,679,200.0	6.41	0.30	43.84	6.6
2000	6,713,600.0	7.03	0.42	43.65	6.9
2001	6,895,200.0	9.61	0.84	46.79	18.9
2002	7,795,800.0	9.81	0.76	41.78	12.9
2003	9,913,500.0	13.71	1.21	52.13	14.0
2004	11,411,100.0	18.51	1.98	57.75	10.1
2005	14,610,900.0	19.85	1.80	68.77	11.5
2006	18,564,600.0	27.58	2.53	56.20	8.6
2007	20,657,300.0	63.81	5.21	59.16	6.6
2008	24,296,300.0	39.36	6.91	63.19	15.1
2009	24,794,200.0	28.36	2.77	54.52	12.1
2010	54,204,800.0	18.30	1.48	35.65	11.8
2011	63,258,600.0	16.24	1.01	39.61	10.4

2012	71,186,600.0	20.79	1.14	33.46	12.0
2013	80,222,100.0	23.78	2.93	9.48	7.9
2014	89,043,620.0	18.95	1.50	20.75	8.01

Source: Nigerian Stock Exchange (NSE), National Bureau of Statistic (NBS) and Central Bank of Nigeria (CBN)