

Impact of Stock Market Performance on Nigerian Economic Growth

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Abstract

Though, the economic theory indicates a positive relationship between stock market and economic growth, but the causal relationship between the variables remains a topical issue among researchers. In addition to the apparently slow rate of economic growth in Nigeria, this research work is prompted by the need to investigate the direction of causality between stock market performance and economic growth indices in Nigeria with the view to establish the cause-effect relationship between the two variables. Economic growth is represented by Gross Domestic Product (GDP), while stock market performance is proxied by market capitalization (MKTCAP), value of transactions (VALTRAN), volume of transactions (VOLTRAN), total listed companies (TOLIST) and all share index (ALLSI). Data were obtained through various secondary sources such as; Central Bank of Nigeria (CBN) and Nigeria Stock Exchange (NSE), Annual Reports. Ordinary least square (OLS), Regression and Granger Causality Wald Tests are respectively employed for assessing the relationship and the direction of causality between the variables under consideration. The overall results of OLS, Regression reveal a significant relationship between stock market performance and economic growth indicating MKTCAP as the strongest predictor variable, while predictor variables, such as, VOLTRAN and ALLSI have insignificant inverse relationships with GDP. Causality test shows that causality runs from economic growth to stock market performance. The study recommends that, Government should put in place effective fiscal policies and incentives (such as, reduction in cost of sourcing fund from stock market, reduction of withholding tax rate on dividends, encouragement of payment of high dividends to investors and investment of certain percentage of civil servants and contractors' earnings on shares) that can stimulate both investors and users of long term fund, so that high level of patronage in Nigerian Stock Market can be encouraged.

Keywords: Stock Market, Dividends, Growth, Economy, Fiscal policies, Incentives, Market Capitalization, GDP

1. INTRODUCTION

Recent studies suggest that, stock market liquidity has been a catalyst for long-run growth in developing countries, such as Nigeria. 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. In contrast, a liquid equity market allows savers to sell their shares easily, thereby permitting firms to raise equity capital on favourable terms. By facilitating longer-term, more profitable investments, a liquid market improves the allocation of capital and enhances prospects for long-term economic growth. The capital market is an organized market which provides facilities to the government and private investors to raise long term loans to finance its expenditures and for expansion and modernization of industries. It also exists to offer platform where suppliers of capital can quickly and easily restore their liquidity. The capital market serves the purpose of capital mobilization and allocation of the Nation's capital resources among various competing alternative uses. These vital functions for rapid economic growth and development as performance by the capital market are in consonance with the aims and objectives for establishing the Nigeria Stock Exchange (NSE) in March, 1960(as the Lagos Stock Exchange). NSE organizes the market for the buying and selling of stocks, shares, debentures and Government bonds, collectively known as securities. There are two markets within the NSE, like other stocks exchanges in the world. These are; The Primary Market; and The Secondary Market.

The Primary Market operates when the initial capital raising takes place. It is also known as the New Issue Market. Through the primary market operations, the Government and industrialists were able to raise long – term loans to finance development projects and for expansion and modernization of industries respectively. This market channel of NSE exacts enormous impact on the Nigeria's economy. It meant that Nigeria businessmen and nascent industrialists could otherwise have no organized market where they could raise long-term loans for investment purposes. Subsequently, the mobilization of long –term funds for productive purposes in the economy could have been difficult without the NSE. The Secondary Market of NSE is where securities are bought and sold after its issuance in the primary market. Thus, the NSE through this market channel provide the means of restoring liquidity to investors and allowing them to spread their risks while the borrowers, such as, Government and Industrialists retain the funds in

their investments. Activities of the exchange through these channels provide it with the functions of mobilizing savings from the surplus spending unit (SSU) of the economy and allocate them to the deficit spending unit(DSU). Where greater proportion of these funds go to those investments with the highest rates of return after giving due allowance for risks, this allocative function of the NSE is crucial in determining the overall growth and efficiency of the economy. If capital resources are not provided to those economic units where demand is growing, and which are capable of increasing productivity, and at the appropriate time, the growth rate of the economy will be inevitably compromised. The NSE thus became the hallmark of the Nigerian Capital Market, hence NSE and capital market are often used interchangeably. The main objective of this study is to first, assess the extent to which the stock market have been able to live up to those expectations for which it was established. Secondly, this study seeks to provide critical evaluation of the performance, roles and contributions of the Nigerian Stock Market to the growth and development of the economy; unveiling the capital formation process of the NSE, since this is an essential factor to a Nation's economic growth and development; and finally, it is the objective of the study to bring to bear the limiting factors on the performance of NSE towards the Nigeria economic development.

2. LITERATURE REVIEW

2.1 Conceptual Clarifications

2.1.1 The Nigeria Stock Exchange

The NSE provides facilities for raising long-term capital for Government and Industrialists to finance developmental projects and for expansion and modernization of industries respectively. This means that the NSE is a place where long-term securities of varying forms are traded. The NSE provides all necessary facilities, rules and conducts for healthy competition and growth market. Therefore, the NSE is an intermediary between suppliers of funds and the investors of long-term funds. This allocative function of the NSE is critical in determining the overall growth of the economy. "If capital resources are not provided to those economic areas, especially industries where demand is growing and which are capable of increasing productivity, then the rate of expansion of the economy will inevitably suffer" Alile (1996). The stock market therefore, plays a central and indispensable role for which it is described as the hallmark of the Nigerian Capital Market. The NSE has witnessed tremendous growth since its establishment in 1960. This growth is conspicuous in the increasing number of capital market instruments traded in the exchange, market operators and size of market capitalization. Undoubtedly, various factors are responsible for this growth, among which are as follows:

- i. The indigenization of the credit base objective. This was responsible for the huge investments in the second and third development loan stock issues in 1961 and 1962.
- ii. The Income Tax Management Act 1961. Under this Act, existing pension and provident funds in the country were obliged to invest at least one-third of these funds in Nigerian Government stocks at the penalty of forfeiting valuable tax concession.
- iii. The National Provident Funds Act 1961. Pension and provident funds established after 1961 were required under this Act to invest at least half of these funds in stocks.
- iv. The Insurance, Miscellaneous Provisions Act 1964. It required that at least 25 percent of all local investment of these insurance companies must be in government securities as the Act required the insurance companies operating in Nigeria to invest locally at least 40 percent of their premium on locally insured risks in any financial year.
- v. The operations of the Central Bank of Nigeria. CBN has greatly stimulated the growth and development of stock market in Nigeria via Government Securities. Apart from acting as the issuer, underwriter and retailer of these stocks, the CBN provides facilities to ensure the marketability of these securities.
- vi. The Pioneer Industries Ordinance 1951, as amended. It stipulates that only those foreign companies which allowed at least 10 percent of their equity capital to be held by Nigerians would benefit from liberal tax holidays and other concessions under the ordinance. This no doubt encouraged few companies to offer part of their share equity to Nigerians through the NSE.

- vii. The Indigenization Decree. This had great potential in stimulating dealings in industrial stocks. Reflecting the efforts of various companies to comply with the requirements of this decree, the increasing pace of economic activity and the growing confidence in the Nigerian economy.
- viii. Privatization of Key Government Enterprises. The unbundling and eventual privatization of key Government monopolies and other enterprises have greatly stimulated dealings in industrial stocks in the NSE.
- ix. The Bank of Industry. The Bank of Industry formerly known as Nigerian Industrial Development also exerts tremendous impact on the development of the stock market in Nigeria. This, it has been doing by encouraging promising enterprises to incorporate as limited liability companies and then offer to take up their shares after incorporation, and finally encouraging such companies to apply at the appropriate time for stock exchange quotation.

2.1.2 Developments in the Nigerian Stock Market

Market capitalization of the Nigerian Stock Exchange continued to improve gradually from a total of N5Billion in 1981 to N8.2Billion in 1987 with Government securities taking the lead with N3.1Billion as compared to N1.9Billion and N4Billion in 1981 and 1987 respectively. Thereafter, the total market capitalization not only began to show remarkable improvement, but equities began to take the lead with capital capitalization of N175.1Billion in equities in 1995 compared with Government stocks of N3.2Billion in the same year. By 2007, total market capitalization had hit N13, 187.7Billion; this limp was attributable to the privatization of some public concerns by the Federal Government. However, in 2008 the effects of the global financial crunch which started in July 2007 had begun to take its toll in the Nigerian Capital Market Foreign portfolio investors had begun to divest from Nigeria perhaps in order to meet up with obligations in their home countries. This scenario saw the general price level crashing down by 80 percent by 2009. Although, the market correction had started since fourth quarter 2009, the bartered confidence in the market is yet to be seen restored and the market far from full recovery. Growth in total market capitalization had continued to oscillate downward from -27.8 percent, -26.3 percent, 41 percent and 4 percent in 2008, 2009, 2010 and 2011 respectively, while annual turnover value oscillated between 14.3 percent, -71.4 percent, 16.3 percent and -21.9percent in 2008, 2009, 2010 and 2011 respectively. Also the number of listed securities had oscillated between -2.6 percent, -11 percent, -0.8 percent and -5.3 percent in 2008, 2009, 2010 and 2011 respectively.

2.1.3 Contributions of the Stock Market to Capital Formation in Nigeria

Stock Market exists primarily as a vehicle for the mobilization of funds. However, capital mobilization will be restricted to the channeling of savings into new issues, which will therefore, result to a new increase in capital formation. The Federal Government of Nigeria through the stock market had raised long-term loans for on lending to the regional and later State Governments for development projects since 1961 when the NSE began operation. The Federal Government had been encouraging the State Governments to approach the stock market to raise long-term capital for development projects on their own merit. In this way, the State Governments will be subjected to market discipline. Currently, most State Governments have raised long-term funds through the stock market for development purposes. Also, foreign exchange market liberalization, the deregulation of interest rate structure and dividend policy has made the Nigeria stock market a viable option for capital formation. More companies now use the stock market facilities for strengthening their balance sheets and growth. In this process, there have been flurry of rights issues, offers for subscription for equity and debenture stocks.

2.1.4 The Promotion of Indigenous Industries

The NSE having given due recognition to the need to turn small and medium scale companies into big ones introduced the Second Tier Securities Market in 1985 for the promotion of small and medium scale companies in the country. This, it does by making available its facilities at the stock market to viable small and medium scale indigenous entrepreneurs to raise funds for expansion and modernization of their business at less stringent listing

requirements. The Second Tier Securities Market has contributed tremendously to the country's capital formation process and subsequently, reduction of unemployment.

2.2 Empirical Literature

A large body of empirical studies clearly shows that the development of stock markets is strongly and positively correlated with the level of economic development and capital accumulation. This is a solid and uncontroversial result, and it appears to be true across time and for many countries. Indeed, data confirm that as economies develop equity markets tend to expand both in terms of the number of listed companies and in terms of market capitalization (Atje and Jovanovich 1993; Demirgüç-Kunt and Levine 1996a, 1996b; Demirgüç-Kunt and Maksimovic 1996; Korajczyk 1996; and Zervos 1996, 1998). This result, however, does not suggest a direct and monotonic expansion of the share of equity markets in the financial system. In reality, the expansion of equity markets always appears to be preceded and accompanied by the general expansion of the overall financial system. And to a careful observer, far from being a simple and straight forward fact, the co-evolution of real and financial variables is a complex and multifaceted phenomenon. Indeed, the expansion of stock markets generally follows the development of commercial banks and other financial intermediaries which, in many cases continue as equity markets expand. This process produces an apparently puzzling situation: an expanding equity market together with a financial system persistently dominated by banks and their financial products. Even if the evidence often appears to be bewildering, and in many circumstances difficult to interpret, some simple general stylized facts about the relationship between financial development and economic growth can be drawn from the empirical literature (De Gregorio and Guidotti 1995; King and Levine 1993a, 1993b; Levine and Renelt 1992; Roubini and Sala-i-Martin 1991). These facts are summarized in the following points; In the early stages of economic development, financial markets are very thin and very rudimentary. During these stages, financial markets are dominated by banks, or similar types of financial intermediaries. Stock markets are completely absent or, if they exist in any form, their size is negligible. As capital accumulates, financial intermediaries develop, the number of financial instruments increases, as does the level of sophistication and complexity of financial contracts and the flow of resources and funds accruing to the financial markets increases its size. Stock markets start developing both in terms of the number of listed firms and market capitalization. As the economy continues to grow, equity markets develop further and so do banks and other financial intermediaries. Stock markets appear to develop in a non-monotonic ways. In economics, where stock markets are relatively small, capital accumulation seems to be followed by a relative increase in banks' share in the financial system. In economics, where the stock market has already reached a reasonable size, further development of the market causes an increase in the equity markets' share. In other words, evidence shows that the equity/debt ratio first decreases and, only with further development of the stock market, increases.

Okodua and Ewetan, O. (2013) in their study, Stock Market Performance and Sustainable Economic Growth in Nigeria, using the autoregressive distributed lag (ARDL) estimation technique came to conclusion that the overall output in the Nigerian economy is less sensitive to changes in stock market capitalization as well as the average dividend yield. Market size is important because the level of savings mobilization and risk diversification depend strongly on this indicator. Of course, a measure of a stock market's size needs to take into account the dimension of the economic system overall. For this reason, the typical measurement employed in empirical analyses is the ratio of market capitalization to Gross Domestic Product i.e. market capitalization/GDP. Stock market size can also be measured by the number of listed companies in the stock exchange in each period. Although, market size is an important indicator of stock market development, this measurement by itself does not capture all the features of a financial markets' development. Indeed, a developed market is also an efficient and liquid market in which financial funds can be mobilized at low cost and can move easily from one investment to the other. These qualitative features of market development can be captured by indicators such as the volume of shares traded in each period and the degree of concentration. While the former of these indices measures the level of liquidity in the market, the latter takes into account the level of risk diversification.

2.3 Theoretical Framework

2.3.1 The Bernoulli Hypothesis

Daniel Bernoulli was very much concerned finding solution as to why the Russians of his time were very much averse to risk and are not willing to make bets at a better than 50 – 50 odds knowing that the expected monetary value (EMV) of such bets are infinite, a situation known as the St. Petersburg paradox. In resolving this paradox, he came to the conclusion that though the monetary gain or loss is equal, the loss in utility is greater than the gain in utility. Thus, in Bernoulli's view, rational decisions in the case of risky choices would be made on the basis of expectations of total utility rather than the mathematical expectations of monetary value. Therefore, the primary reason influencing peoples' choices in cases of uncertainty (risks) is that the fact that

marginal utility of money diminishes as income rises. There is a greater loss in utility than a gain in utility in an equal amount of money lost or gained. This suggests why majority of Nigerians are seldom interested in the activities of the stock market, and makes it even more difficult restoring confidence in the market. According to Gurley and Shaw, it is the non-bank financial institutions that provide liquidity and safety to financial assets and help in transferring funds from ultimate lenders to ultimate borrowers for productive purposes. Thus, the quantity and composition of financial variables induce economic growth through increase purchase of financial assets. The buying of primary securities from ultimate borrowers and selling indirect securities to the ultimate lenders influence the availability of credit and of course, the structure and level of interest rate in the economy.

2.3.2 Loss-Aversion Theory

Loss-Aversion theory states that peoples' perceptions of gain and loss are skewed. That is, people are more afraid of a loss than they are encouraged by a gain. If people are given a choice of two different prospects, they will pick the one that they think has less chance of ending in a loss, rather than the one that offers the most gains. For example, if you offer a person two investments, one that has returned 5% each year and one that has returned 12%, lost 2.5%, and returned 6% in the same years, the person will pick the 5% investment because he puts an irrational amount of importance on the single loss, while ignoring the gains that are of a greater magnitude. In the above example, both alternatives produce the net total return after three years. Loss-Aversion theory for financial professionals and investors, although the risk/reward trade-off gives a clear picture of the risk amount an investor must take on to achieve the desired returns, prospect theory tells us that very few people understand emotionally what they realize intellectually. For financial professionals, the challenge is in suiting a portfolio to the client's risk profile, rather than reward desires. For the investor, the challenge is to overcome the disappointing predictions of prospect theory and become brave enough to get the returns you want.

2.3.3 Rational Expectations Theory

Rational expectations theory states that the players in an economy will act in a way that conforms to what can logically be expected in the future. That is a person will invest, spend, etc., according to what he or she rationally believes will happen in the future. Although this theory has become quite important to economics, its utility is doubtful. For example, an investor thinks a stock is going to go up, and by buying it, this act actually causes the stock to go up. This same transaction can be framed outside of rational expectations theory. An investor notices that a stock is undervalued, buys it, and watches as other investors notice the same thing, thus pushing the price up to its proper market value. This is the problem with Nigerian stock market trying to restore market confidence since after the global financial crunch. The general expectation of Nigeria investors is pessimistic and hence the market is dragging irrespective of the innovations introduced by the regulatory agency and the Nigerian StockExchange.

3. METHODOLOGY

The method of analysis in this study is the Error Correction Model (ECM) Technique with E-VIEWS 7 as the operational software. It is one of the most commonly employed methods in estimating relationships in econometric models where major assumptions of the Ordinary Least Square(OLS) have been violated and its use in a wide range of economic relationships, has provided satisfactory results. This study employed secondary data collected from various sources including the Central Bank of Nigeria statistical journal, 2018, Annual Report and Statement of Account, Stock Exchange Annual Reports, 2018. The data series used in this study for analysis includes: Real Gross Domestic Product (RGDP), Total Value Traded (TVT), Market Capitalization Ratio (MCR), Turnover Ratio (TOR), and number of listed companies (Q).

3.1 Model Specification

Economic growth (proxied as RGDP) is expressed as a function of total value traded (TVT), market capitalization ratio (MCR), turnover ratio (TOR), and number of listed companies(Q).

$$\ln RGDP = f(\ln TVT, \ln MCR, \ln TOR, \ln Q)$$

$$\ln RGDP = \beta_0 + \beta_1 \ln TVT + \beta_2 \ln MCR + \beta_3 \ln TOR - \beta_4 \ln Q + \mu$$

All explanatory variables are expected to have positive effects on RGDP, i.e. $\beta_1, \beta_2, \beta_3, \beta_4 \geq 0$

Where:

RGDP	=	Real Gross Domestic Product,
TVT	=	Ratio of Total Value Traded to GDP
MCR	=	Market Capitalization Ratio
TOR	=	Turnover Ratio
Q	=	Number of listed Companies
ln	=	Logarithm transformation

4. Results and Discussion

Testing for Stationarity

In order to avoid the occurrence of spurious results, this study adopted the Augmented Dickey- Fuller (ADF) test for testing the Stationarity of the time series data. The ADF test statistic outcome of the time series data for the period, 1993 – 2018 shows that all-time series data are stationary at first difference at 1% level of significance. See table below:

Table 1: Augmented Dickey-Fuller Test Statistics

	t- statistic	Critical values 1%	Critical values 5%	Critical values 10%	Probability	Decision
D(InRGDP)	-5.516956	-3.670170	-2.963972	-2.621007	0.0001	1(1)
D(InTVT)	-5.805901	-3.670170	-2.963972	-2.621007	0.0002	1(1)
D(InMCR)	-4.491473	-3.670170	-2.963972	-2.621007	0.0013	1(1)
D(InTOR)	-5.805901	-3.670170	-2.963972	-2.621007	0.0000	1(1)
D(InQ)	-3.700260	-3.670170	-2.963972	-2.621007	0.0093	1(1)

Testing for Cointegration

Cointegration can be used to determine whether there exists long-run equilibrium relationship among the variables of study. In doing so, the Johansen Cointegration test can be used in this study for testing. This test will identify the number of long-run relationship that exists among the sets of integrated variables. The trace statistic tests the null hypothesis that there are at most (r) cointegrated equations. Therefore, a rejection of the null hypothesis means that there are more than (r) cointegrating relationships.

Error Correction Model

The Error Correction Model which applies the Least Square Method is used to reveal that Market Capitalization Ratio (MCR) and the Turnover Ratio (TOR) are significant at all acceptable statistical levels of significance. The Error Correction Model will always reveal the significance of the ratio of total value of stocks traded in the Stock Market. A negative elasticity of the total value of stocks traded, reflects the true situation in the Nigerian Economy. It is amazing, but true that, less than 1 percent of Nigerians knew what the Stock Market is all about, hence the continuous loss of confidence in the market further heightened by the global crunch from 2007 to date, which left stock prices in the economy crashed beyond imagination. Due to the continuous loss of confidence in the market which still permeates the economy is the reason investors are divesting into the real sectors of the economy at the expense of the stock market. Thus, as the GDP is growing, investors are divesting from the Stock Market, resulting to less investment in the stock market hence the inverse relationship that now exists between RGDP and TVT in the Nigerian economy.

Granger Causality Test

Granger causality is a statistical concept of causality that is based on prediction. According to Granger causality tests whether X causes Y is to see how much of the current Y can be explained by past values of X and then to see whether adding lagged values of X can improve the explanation. It is therefore a statistical hypothesis test for determining whether one time series is useful in forecasting another first proposed. Causality is the relationship between 'cause' and 'effect'. It is the principle that nothing can happen without being caused. In this study, using Granger Causality test will reveal that there is unidirectional causal relationship between numbers of listed companies (Q) and Real Gross Domestic Product (RGDP) and it runs from numbers of listed companies to Real Gross Domestic Product, while bi-directional causal relationship exists between Market Capitalization Ratio and the Ratio of Total Value Traded. Ratio of total value traded Granger causes market capitalization ratio and market capitalization ratio Granger causes Total value traded. Moreover, there are no causation between market capitalization ratio and Real Gross Domestic Product; Ratio of Total Value Traded and Real Gross Domestic Product; and Turnover Ratio and Real Gross Domestic Product.

5. CONCLUSION AND RECOMMENDATION

Although, the Stock Market size remain a very important indicator in measuring the stock market impact on economic growth, this study reveals that the Nigeria's Stock Market size with an average of 250 listed companies exerts significant influence on Nigeria's economic growth. This study also revealed that the Nigerian economic growth and stock market capitalization has no causal relationship. Thus, it is clear from this study that Nigerian Stock Market has the potentials to drive the economy only if enabling environment is created for easy enlisting of firms in the Nigerian Stock Exchange. It does not go without saying that the Nigerian Stock Exchange must set up mechanism for reaching out to viable enterprises in the economy. Stock Market Regulators should therefore address policy issues that are capable of boosting the investors' confidence through improved policy formulation and creation of awareness. When confidence is restored the total value traded will increase significantly thus raising Stock Market Capitalization.

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