INTRODUCTION

The Nigerian economy is going through a transformation process, aimed at achieving economic growth and development. The role of the capital market in this regard cannot be over emphasized for capital is a critical factor in any economic transaction. Thus, the ability of a nation to mobilize savings and transform such savings into investment depends on the type of capital market that exists at a particular point in time. Suffice, to say that an efficient capital market is one which incorporates all the indices that allow for free flow of capital investments.
from being active players on the Nigerian stock market resulting from the poor performance of the capital market and the development of the Nigerian economy.

In this study, we examine the factors affecting the efficient performance of the Nigerian capital market, concentrating in particular on the relationship between economic growth and unemployment. This study covers a period 1981 to 2009. The major limitation of this study is getting statistical data to cover the period under review. The specific objectives of this study are: (i) To investigate the factors affecting the efficient performance of the Nigerian Capital Market; (ii) To evaluate the impact of the Nigeria capital market in the development of the Nigeria economy.

LITERATURE REVIEW

Developing countries all over the world are researching on how to solve major economic problems of inadequacy of capital resources for the purpose of enhancing economic growth and development. Capital is indeed needed to propel the engine of growth and thus, facilitating maximum output and real economic growth in an economy. An assessment of the entire economic system reveals that capital due to the nations are not properly harnessed in developing countries due to the presence of weak capital markets and inefficient infrastructure to mobilize available capital for economic and productive activities. (Nzotta, 2004). A capital market is therefore a network of financial institutions that facilitate the mobilization and allocation of medium and long-term funds in an economy. The long term funds are used for financial assets issued by borrowers or traded by holder of outstanding eligible instruments. Therefore, it provides services that are essential to a modern economy, mainly by contributing to capital formation through financial intermediation, financial advisory services and managerial skill development. Before the advent of the stock market, banks and other money market institutions in Nigeria provided short-term funds to businesses. Money market institutions traditionally lend short-term funds which are not suitable for the funding of long term projects with long gestation periods, such as industries, infrastructures, power generation and telecommunication. Power generation is known to require huge and long term fund which only the stock market is in a more convenient position to provide. A stock market thus, constitutes the hub and the accelerator of a rapidly industrializing economy. It affords an enterprise the opportunity to broaden economies of scale and skill and high fly international profile (Onoh, 2002).

The equity markets in developing countries until the mid 1980s generally suffered from the classical defects of bank-dominated economies, that is, shortage of equity capital, lack of liquidity, absence of foreign institutional investors, and lack of investors’ confidence in the stock market. Since 1986, the stock markets of developing nations have witnessed appreciable development with financial liberalization and the easing of legislative and administrative barriers coupled with the adoption of tougher regulations to boost investors’ confidence. With the beginning of financial liberalization in the developing countries, the flow of private foreign capital from the developed to the developing countries has increased significantly and such inflows of foreign capital have been mainly in the form of foreign direct and portfolio investment (World Bank, 1996; Agarwal, 1997). The latter type of inflows has mainly been through the stock market. In Nigeria, with the inception of the Structural Adjustment Programme in 1986, the financial sector has experienced tremendous change as privatization has one of the basic tenets of the programme. No doubt, privatization has strengthened stock market development by increasing the quality and quantity of financial instruments traded in the market. By 1997, some efforts were made of minimize the risk of capital investment in the Nigerian economy by putting in place relevant institutions to minimize clearing, depository and settlement problems. Hence, the Central Securities and Clearing System (CSCS) came into being then. This, in conjunction with automated trading, has improved the performance of the market. Coincidentally, since the beginning of financial liberalization in 1986, Nigeria has made a remarkable turnaround with the GDP growth rising from negative of 0.3 percent in 1982, to 3.2 and 8.2 percent in 1986 and 1990 respectively. The growth rate of GDP, though declined to 1.3 percent in 1994, picked and rose smoothly to 3.4 percent in 1996.

Stock market facilitates efficient allocation of resources to the appropriate users. It also enhances higher productivity and better realization for macro-economic goals such as price stability, higher level of savings, greater export opportunities, more employment opportunities, and a higher standard of living for the populace. The instruments traded in the market include government securities, corporate
bonds, shares and mortgage loans (Anyanwu, et al., 1997). Participants in the Nigerian stock market include the Nigerian Stock Exchange, (NSE) Discount Houses, Development Banks, Merchant banks, Stock Broking Firms, Insurance and Pension Organisations, quoted companies, Governments at all levels, individuals and the Nigerian Securities and Exchange Commission (NSEC). Stock market consists of the primary market, which is concerned with the offering of new issues or the initial issuance and sale of securities. Previously, quoted companies could seek expansion of funds through the issuance of supplementary securities in this market while new companies were required to go public before they could issue securities to the public through the market. Types of instruments issued here include debt instruments comprising federal government development stocks (FDSs), and industrial loans and bonds issued by corporate bodies and equity capital (ordinary shares of corporate entities) which confer upon the holders some ownership rights to the business concerned. The secondary market, thus, trades on securities that have already been listed on the stock exchange. It is often contended that the existence and allocative efficiency of the primary market is, however, dependent upon the existence and efficiency of the secondary market in all respects (Mbat, 2001). Although, the stock market is neither a private nor public sector institution, it assists in the transmission of government policy to all the sectors of the economy, especially in economies, where the authorities.

Functions, development and structures of the Nigerian capital market

The capital market according to Nzotta, (2004), is a market that provides long-term funds for investment purposes. It provides a mechanism through which lenders provide long-term funds in exchange for financial assets issued by borrowers or traded by holders of outstanding negotiable debt instruments. Nwankwo (1980) is of the view that a vivacious capital market should provide the following functions:

(i) Provide appropriate machinery to facilitate further offerings of stocks and shares to the general public;
(ii) Promote increasing participation by the public and the private sector of the economy; (iii) Encourage the investment of savings so soon as it is clear that stocks and shares are readily available; (iv) To provide a central meeting place for members to buy and sell existing stocks and shares and for granting quotations to new ones; (v) To provide opportunities for raising new or fresh capital; (vi) To provide machinery for mobilizing private and public savings and making these available for productive investment through stocks and shares; (vii) By facilitating the purchase and sale of securities, to help reduce the risk of illiquidity. Ideally, this should encourage more investment in stocks and shares since investors are sure that in case of need they could realize their investments easily and with minimum of loss and in many cases at a profit in the stock exchange; (viii) Through its ruler, regulations and operational code and practices to protect the public from shady dealings and practices in quoted securities with the objective of ensuring fair dealing. In this way, the stock exchange; (ix). Through its ruler, regulations and operational code and practices to protect the public from shady dealings and practices in quoted securities with the objective of ensuring fair dealing. In this way, the stock exchange augments or supplements the protection and regulations offered in the Companies Act; (x). To act as a channel for implementing the indigenization Decree of providing facilities to foreign businesses to offer their shares to the Nigerian public for subscription; (xi). To the extent that it is a condition for specified existing or new companies to have a prescribed percentage of shares owned by Nigerians and to the extent that the firms prefer to do this through public issues, the Lagos Stock exchange was expected to provide opportunities for continued operation and attraction of foreign capital for Nigeria’s development; (xi). To facilitate dealings in government securities. To the extent that this provides the government with funds to participate with foreign investors in establishing industrial projects, the exchange was expected, indirectly, to facilitate foreign investment in Nigerian manufacturing.

Nwankwo, (1993) traced the history of the stock market development in Nigeria dates back to the late 50s when the Federal Ministry of Industries set up the Barback Committee to advise it on ways and means of setting up a stock market. Prior to independence, financial operators in Nigeria comprised mainly of foreign owned commercial trade credits for the overseas companies with offices in Nigeria. Their capital balances were invested abroad in the London stock exchange. Ayadi (1984) observed that the Federal Government in an attempt to accelerate economic growth embarked on the development of the Capital Market. Some of the factors that encouraged the Federal Government according to Ayadi (1984) to establish the capital market included
the need to provide local opportunities for borrowing and lending of long-term capital by the public and private sectors as well as an opportunity for foreign-based companies to offer their shares to the local investors and therefore, provide an avenue for the expatriate companies to invest their surpluses. Following the Barback Report, the Lagos Stock Exchange was set up in 1959. With the enactment of to Lagos Stock Exchange Act, 1961, it commenced business in June, 1961 and assumed the major activities of the stock market by providing facilities for the public to trade in shares and stocks, maintaining fair prices through stock-jobbing and restricting business to its members (Nzota, 2004).

According to Nzota (2004) the Lagos Stock Exchange was renamed the Nigerian Stock Exchange in 1977, with the following as its principal objectives:

- To provide facilities to the public in Nigeria for the purchase and sale of funds, stocks and shares of any kind and for the investment of money.
- To control the granting of a quotation on the stock exchange in respect of funds, stocks and shares of any company, government, municipality local authority and other corporate body.
- To regulate the dealings of members, their interest and those of their clients.
- To promote, support or propose legislative or other measures affecting the aforementioned objects.

Mbat (2001) findings shows that, in accordance with the memorandum and articles of association, the stock exchange was incorporated as a private non-profit making organization limited by guarantee to undertake three basic functions,

1. To provide trading facilities for dealing in securities listed on it; (2). To oversee activities relating to trading in securities; and (3). To enhance the flow of long-term capital into productive investment and ensuring fairness of prices at which quoted securities are traded. Trading activities were commenced with 2, Federal Government development Stocks, 1 preference share, and 3 domestic equities.

However, the market grew slowly during that period compared with 3 in 1961. Government stocks comprised the bulk of listing with 19 of such securities quoted on the exchange in 1966 as compared with 6 at the end of 1961. Prior to 1972 when the indigenization exercise took off, activities on the Nigerian Stock Exchange were low. That was true both in terms of the value and volume of transactions. For instance, the value of transaction grew from N1.49 million in 1961 to N16.6 million in 1976. Similarly, the volume of transactions grew from 334 to 634 over the same period (Mbat, 2001).

The bulk of the transactions were in government securities, mainly the development loan stock through which the government raised money for the execution of its development plans. Accordingly, with the promulgation and implementation of the Nigerian Enterprises Decree of 1972, which principal objectives included promoting capital formation, savings and investment in the industrial and commercial activities of the country, the low level of activities in the stock market increased as Nigerians grained the commanding heights of the economy. Under schedule 1 of the decree, all the enterprises listed were to be left for Nigerians while foreign holding in enterprises under schedule 2 was limited to 40 percent. This was later revised in the 1977 decree. By 31st December 1978, of the 1200 enterprises affected 1120 enterprises had complied with the requirements of the decree. Arising from the compliance with the decree, 21 new securities were listed on the exchange between 1972 and 1976.

However, following the criticisms that the Nigerian Stock Exchange was not responsive to the needs of local investors, especially indigenous businessmen who wished to raise capital therefore for their businesses, the NSE introduced the second-Tier Securities Market (SSM) in 1985) to provide the framework for the listening of small and medium sized Nigerian companies on the Exchange. Six companies were listed on this segment of the stock market by 1988 and by 2002 over twenty-three companies has availed themselves of the opportunities offered by this market. Nnanna (2004), observed that in the mid-80s, it was obvious that government has to reduce the level of its involvement in economic activities and concern itself with maintaining law sequel to the observation that a lot of state-owned enterprises were not operating at a profit and constituted an unnecessary drain on the public purse. The Federal Government therefore set up the technical committee on privatization and commercialization (TCPC), the precursor of the Bureau of Public Enterprises which was charged with the divestment of government shareholding in quoted companies and the sale of enterprises that could be better managed under private ownership. Nzota (2004), found out that to complement the role of the stock exchange, the Federal Government set-up development financial
institutions to provide specialized long-term capital for sectoral growth and development. This led to the creation of the Nigerian Industrial Development Bank (NIDB) in 1964 with the aim of providing long and medium term finance to the industrial sector. Prior to 1970, there were strong criticisms of the operating policies of the NIDB in that the bulk of the loans went to foreign dominated enterprises. Nzota (2004) also noticed that until 1973, the NIDB was more or less alone in the field of development banking at the national level, until the establishment of the Nigeria Bank for Commerce and Industry (NBCI), which was seen as a way of extending the facilities provided by the NIDB to small and medium enterprises.

The NBCI was mandated to carry out such functions as: Promotion and development of key economic projects of medium or large scale but with overall capital cost of not less than N14 million; provision of finance for acquisition of existing business by Nigerian majority owned companies; undertake development banking business, investment in basic development projects like industrial estate, warehouses, shopping centres, establishment of unit trusts; opening of letters of credit and insurance of guarantees, among others. The effect of the implementation of the Nigeria Enterprises Promotion Decree did not end with the establishment of NBCI, as the Nigeria Agricultural Bank was created on 24th November, 1972. The objectives of the Bank were to finance agricultural production and development – interpreted in a wide sense to cover animal husbandry, forestry, horticulture, fisheries and agro-allied activities like storage and warehousing, marketing etc. However, the bank was under strong criticism as the conditions for giving out loans were seen as too stringent and difficult for the average Nigerian farmer or agriculturist. The scope of the bank’s responsibility was widened in 1978 and became known as Nigerian agricultural and co-operative Bank (NACB). Nwankwo (1980) asserted that the government in addition to the industrial, agricultural and commercial sectors also targeted the mortgage sector. Thus, on 20th January 1977, the Federal Mortgage Bank of Nigeria (FMBN) was created from the ashes of the defunct Nigerian Building Society formed in 1956. The primary objectives of FMBN was to provide long term credit facilities to mortgage institutions and directly to Nigerian individuals for building construction as well as mobilize funds for mortgage development in the country.

Onoh (2002), held that the Urban Development Bank of Nigeria was incorporated in 1992 under the companies and Allied Matters decree and the bank-commenced business on 2nd November 1992. The main objective of the Bank were to provide resources that would enhance the development and provision of urban infrastructure namely urban dwelling, urban mass transportation, commercial ventures like motor parks, shopping plazas, abattoirs, sport stadia, hospitals, solid an industrial waste disposal and public utilities. The Bank’s strategy included the provision of medium and long-term loans, and joint financing with other institutions and entities or governments. Other development finance institutions established for various reasons were the peoples Bank created in October, 1989 for the purpose of extending credit to the poor who had little or no access to credit facilities of commercial banks; family Economic Advancement Programme (FEAP) established in 1995 as part of the poverty Alleviation Programme of the Federal Government; and the Nigerian Education Programme of the Federal Government; and the Nigerian Education Programme (NEB) established in Nigeria. Furthermore, in order to enhance the performance of the capital market, Onoh (2002) noticed that, the Government embarked on its deregulation with the 1991 Federal Government Budget. The increase in the capital base of the new development banks is aimed at strengthening their abilities to participate in the market. All these efforts are important recognition of the fact that a well-developed capital market can foster economic growth.

Traditionally, a Capital Market is structured into the stock and commodities markets Hananna (2004). It is where financial assets such as shares, bonds are raised and traded. According to Mbat (2001) the commodity market is the segments of the capital market where commodities are traded. The commodities in their raw forms range from agricultural products to oil products and precious metals. A commodity exchange market operates a trading floor where the market operators transact their business. Thus, commodity and their derivatives are exchanged for money. Another important feature of the commodity market according to Akpan (2004) is that the commodities are not physically traded in pits and as such different commodities are traded in different pits. However, the commodities market is not well developed in Nigeria. According to Akamiokhor (1992) the stock market is divided into the primary and secondary markets. The primary market is the segment of the stock market, where funds are sourced directly by investors from
individuals, corporate organization and specialized development finance institutions. The main characteristics of the primary market are; the market is not identifiable with any particular site; and the proceeds go to the investor sourcing of fund from this segment of the capital market can either be in form of equity participation and or listed or unlisted industrial loans, mortgage loans and government bonds/stocks.

Levin (1996) noticed that the secondary segment is where existing securities are traded. Holders of particular securities or instruments purchased from the primary market may decide to sell instruments. The proceeds of sale go to the holders of the instruments than the company. In Nigeria, the secondary segment of the market is made up of two broad categories namely; the Centralized Action Market and the Dealers Market. The Dealers market is characterized by the absence of a centralized location for transacting business in securities. Thus, most securities not listed on the Nigerian Stock Exchange Account for the overwhelming majority of securities are traded in the dealers market. Other instruments traded in the dealers markets of the secondary segment of the capital are securities of unquoted companies primarily aimed at raising working capital. The Centralized Action Market is a stock exchange, which is an organized secondary market for buying and selling of securities. The hub of the Nigerian Capital Market is the Stock Exchange. The Stock Exchange Operates two tiers, the first and second tier markets. Of the quoted equities in the market, are listed in the first tier market, 16 in the second tier and the remaining 4 in managed funds

Problems of capital market in Nigeria

The Nigerian Capital Market is still confronted by various problems that militate against its growth and the level of efficiency. These problems affect the breadth and depth of the market. Some of these problems according to Adetunji (1997) are as follows: Aversion to dilution of ownership: Akpan (2004) found out that the Nigerian entrepreneurs are averse to the dilution of the ownership of their businesses. Thus, they do not actively seek quotation of the company at the stock market. Many of these companies who are large enough to meet quotation requirements are very reluctant to do so, despite the benefits derivable from this course of action. The introduction of the second tier security market has only recorded marginal gains. Another major problem that hampered the growth of the Nigeria capital market is high Level of Ignorance. Associated with the aversion to dilution of ownership is the factor of high level of ignorance of the Nigerian investor. Edogi (2006) observed that In spite of the various attempts to enlighten the average investor, there is an all pervading ignorance of investors in stock market activities. This sustains the buy and hold attitude of the investors and their investment decisions. There is very limited speculation at the market and thus limiting the vibrancy of the market. Here, the potential market capitalization is larger than the real capitalization. Since the level of the development of the stock market is associated with the number and velocity of change in ownership of securities and liquidity, the buy and hold attitude constrains stock market development.

Lack of timely and easy access to information is another common factor that hinders the smooth growth of the Nigeria capital market. According to Nzotta (2004) timely and easily accessible information on the market operations are very essential for the efficient working of the stock market. Unfortunately, according to him this is not the case with the Nigerian capital market. Information on the companies quoted on the exchange are often late and incorrect and thus constrains the decision making process. Most times, the information may not even be available. Consequently, decision making is thus cumbersome. Poor investment climate has also been noted to hinder the Nigeria capital market. The investment climate in Nigeria is generally very uncondusive. According to Ekineh (2000) this increases the risks of holding domestic financial assets in the capital market, and sustains capital flight. The causal factors here are the high level of political instability in the country, various social unrest and unstable macro-economic factors. As a result, direct foreign portfolio investments have not been impressive. Various investors also shy away from the Nigerian stock market as a result of other restrictive factors in the capital market. Last but not the least is illiquidity. The Nigerian capital market also manifests a high level of illiquidity. Levine (1996) observed that the level of liquidity of a stock market is measured by the total value of shares traded on a country’s stock exchanges as a share of GDP. This ratio varies with the case of trading that is how easy it is to buy and sell securities in the market. The second measure of illiquidity is the value of traded shares as a percentage of total market capitalization (value of stocks listed on the exchange). The third measure is
the value-traded-ratio divided by stock price volatility. Here, markets that are liquid should be able to handle heavy trading without large price swings.

**Theoretical framework**

The capital market exists for the mobilization and intermediation of long term funds between areas of deficit and surplus economic units. Both lenders and borrowers of long term funds meet here to transact business (Babalola, 2001). The capital market is the platform on which fortunes growth and development and serves as an indicator of the economy’s liquidity and general performance (Osaze, 1997). It is also the market for other securities like corporate stocks and shares and bonds (Briston, 1969). The instruments constitute the permanent financing of any company hence these long-term natures last longer than 3 to 5 years. It accommodates instruments such as government development stocks and bonds which are normally referred to as gilt-edge securities. Giwa (1990) in his view perceived that the Capital Market is a market in which the government, banks, companies etc. can invest or borrow usually large sum of money on a long term basis. Capital Market are referred to as securities. The capital market is a subset of the financial system that serves as the engine for growth in modern economies. It is that part of the financial system that is involved in providing long term fund for productive use. The capital market can also be looked at as a network of institutions and individuals made up of regulators and operators who together facilitates the smooth operations of the market (Okereke, 2000). Basically, three major schools of thought: The efficient market hypothesis; the fundamental theorists and the technical analysis (Lumby, 1994).

**Efficient market hypothesis**

It is generally expected that financial markets should behave in accordance with the efficient market hypothesis. Technical and fundamental analyses fall short of this expectation and were believed to follow a random walk design. These issues attracted heavy criticism by the academics. Empirical support for the view that share prices do not behave in a systematic manner but are more akin to random walk was initially put forward by Professor M.G. Kendall in the 1950s. Kendall (1953) in a study of the behavior of share prices confirmed this situation. Fama (1970) equally supported this view and thus threw more light on the matter by defining random walk to mean “successive price changes that are independent of each other, that is, they are uncorrelated, hence, attempting to predict the next movement in a particular time series becomes impossible by a study of previous movements. There has, as a consequence, been a degree of antagonism between chartists and academic supporters of the random walk idea (Levy, 1967).

The Efficient market hypothesis supplies a theoretical framework which lends support to the random walk character of share prices. But what exactly do we mean by an efficient market? An efficient market is one where at any time prices take into account all available information, market participants are assumed to act in an intelligent, self-motivated manner and to assess and act upon available information about share prices when information about a specific share is not acted upon then an opportunity will arise for at least some market participants to use that information to their advantage by buying or selling the share. (Mbat et al, 2004). Analysts classify market efficiency into three possible varieties: Weak form efficiency; in which all prices are said to reflect all past information; Semi-strong form efficiency; in which prices fully reflect all publicly available information; Strong form efficiency; where prices are said to embody all information, whether or not publicly available.

**Fundamental Theorists**

They believed that at any point in time an individual security has an intrinsic or true value, which is the present value of the future receipts accruing to the security holder. The theory also holds that, the intrinsic, value of the security depends on some essential factors affecting the company, the industry and the economy. The principal discussion variables in fundamental analysis are earning and dividends. Earning appends sales and costs, which are affected by several factors, internal and external to the firm’s operating environment. Therefore, fundamentalist forecast stock prices on the basis of economic industry and company statistics. Fundamental analysis also attempts to identify factors influencing or likely to influence share prices, that is, the market reaction to information about the economy, industry and company. In assessing the company great reliance is placed on its published financial statement. The other aspect of fundamental theory is that it tends to specialize in particular sectors of the stock market, about which they become extremely knowledgeable. They cast very wide information-capture net and then, on the basis of this information,
and with the use of a share valuation model, determine what they think the shares and, if the analysis thinks the shares are worth more than the current market price, “buy” advice is given. Conversely, if the analysts believe the shares to be over-valued on the market, “sell” advice is given.

They are called fundamental analysts, because they look at the fundamental factors that lie behind a share’s value: the revenues the company can be expected to generate, the costs that the company is expected to incur in the generation of those revenues, the uncertainty surrounding both the future costs and revenues finally, the price (or return) of comparable investments approaches are based on different notions about how share prices are determined and derive their investment philosophies accordingly.

According to Lumby (1994) and Foley (1999), technical analysis also referred to as Chartism, study charts of share price movements, with the intention of discovering particular patterns and trend of share price movements which appear to recur. Once these patterns have been identified, following the share price movements of a particular company, and if they see one of these patterns staring to develop, they believe that they are then able to predict. The share’s future course of movement and so give buy or sell investment advice. Technical analysts believe that they have discovered hundreds of these recurring patterns, and thus give such names as double tops, double bottoms, head and shoulders etc. Technical analysis is faulty in that it does have any basis, nor does it want to investigate to known why a particular share price is predicted to rise or fall. All that is important is that the movement is indicative of a rise or a fall.

**METHODOLOGY, DATA AND RESULTS**

**Model specification**

The sets of time series data were obtained from (i) Annual Abstracts of Statistics of the (i) National Bureau of Statistics, (ii) Nigerian Stock Exchange Annual Reports (iii) The Annual Report and Statement of Accounts as well as the Statistical Bulletin of the Central Bank of Nigeria, (iii) Security and Exchange Commission Annual Reports, (iv) International Financial Statistics of the IMF, (v) Internet, etc. The collected data are on real gross domestic product (RGDP), market capitalization (MCAP), volumes of stocks (VSTS), values index of equities (VIDE), listed securities (LISE) in Nigeria (1980–2012). The analytical tools employed in this research include t-test, co-integration test, Granger Causality (unit root) test and regression analysis (ECM). The t – test will be used to establish whether there exist significant difference in the market capitalization in Nigeria. The Granger causality (ADF & PP unit root) test will be used to examine if the data are spurious. The Granger causality model is expressed as:

\[
Y_t = \sum_{i=1}^{K} \phi_i Y_{t-i} + \sum_{i=1}^{K} \sigma_i X_{t-i} + \epsilon_t
\]

Where \(Y_t\) and \(X_t\) are the time series data which can take values of real GDP and market capitalization. By this model variable that causes the other is identified. This leads to a regression model with lag variable which in its explicit form is given as:

\[
Y_t = a_0 + a_1 X_t + a_2 X_{t-1} + a_3 Y_{t-1} + u_t
\]

By adding values of stocks, value index of equities and listed securities, we have:

\[
Y_t = a_0 + a_1 X_t + a_2 X_{t-1} + a_3 Y_{t-1} + a_4 VSTS_{t-1} + a_5 VIDE_{t-1} + a_6 LISEx_{t-1} + u_t
\]

where: \(Y_t\) = real GDP; \(X_t\) = Market capitalization; \(Y_{t-1}\) = lag of GDP; \(X_{t-1}\) = lag of Market capitalization; \(VSTS_{t-1}\) = lag of volumes of stocks; \(VIDE_{t-1}\) = lag of value index of equities; \(LISE_{t-1}\) = lag of listed securities; \(u_t\) = disequilibrium term.

Thus, this regression model (ECM) will be used after the Granger causality test of directions of causation has been determined (Granger, 1986; Engle and Granger, 1987).

**Data Analysis**

In the analysis, we utilized the ordinary least squares method (OLS) regression analysis. In the analysis, we tested for individuality significance of each independent variable (t-statistic), the overall significance of the independent variables (F-statistic), the goodness of fit (\(R^2\) and \(\bar{R}^2\)), the absence of autocorrelation (DW- statistic), stationarity of each variable (unit root test), ECM and co–integration of the RGDP and market capitalization.
Results and discussion

We used time series data obtained from various sources like CBN Statistical Bulletin, Journals, Internet, International Financial Statistic (IFS), etc. Because of spurious nature of time series data, we used unit root test to check for the stationarity of each variable under consideration. After testing for stationarity using the unit root test, we tested for co-integration before the main multi-regression analysis was ran using OLS (ordinary least square-ECM(-1)) technique. The unit root was carried out under the significant levels 1% and 5% respectively using Augmented Dickey Fuller (ADF). In the t-test, we adopted the rule of thumb which says that if the t-value from the regression result is less than 2, the variable under consideration is considered not statistically significant, otherwise statistically significant. For the F-test, which explains that at least one of the explanatory variable significantly affect the explained. The F-test is tested under 1% and 5% significant levels while the D.W test is tested under the bench mark of 2 to determine if there is presence or absence of serial autocorrelation in the model.

Table 1: Unit Root Test (ADF)

<table>
<thead>
<tr>
<th>Variable</th>
<th>1%</th>
<th>5%</th>
<th>ADF</th>
<th>Order of Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>RGDP (Int)</td>
<td>-3.68</td>
<td>-2.97</td>
<td>-11.03</td>
<td>I(0)</td>
</tr>
<tr>
<td>RGDP Int &amp; Trend)</td>
<td>-4.33</td>
<td>-3.58</td>
<td>-12.83</td>
<td>I(0)</td>
</tr>
<tr>
<td>Lag RGDP (Int)</td>
<td>-3.69</td>
<td>-2.97</td>
<td>-3.79</td>
<td>I(0)</td>
</tr>
<tr>
<td>Lag RGDP (Int &amp; Trend)</td>
<td>-4.33</td>
<td>-3.59</td>
<td>-7.10</td>
<td>I(0)</td>
</tr>
<tr>
<td>MCAP (Int)</td>
<td>-3.73</td>
<td>-3.00</td>
<td>-4.46</td>
<td>I(1)</td>
</tr>
<tr>
<td>MCAP (Int &amp; trend)</td>
<td>-4.39</td>
<td>-3.61</td>
<td>-4.89</td>
<td>I(1)</td>
</tr>
<tr>
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<td>-2.99</td>
<td>-5.49</td>
<td>I(1)</td>
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<tr>
<td>Lag MCAP (Int &amp; Trend)</td>
<td>-4.37</td>
<td>-3.60</td>
<td>-6.03</td>
<td>I(1)</td>
</tr>
<tr>
<td>Lag VSTS (Int)</td>
<td>-3.69</td>
<td>-2.97</td>
<td>-6.32</td>
<td>I(0)</td>
</tr>
<tr>
<td>Lag VSTS (Int &amp; Trend)</td>
<td>-4.33</td>
<td>-3.59</td>
<td>-5.75</td>
<td>I(0)</td>
</tr>
<tr>
<td>Lag VIDE (Int)</td>
<td>-3.69</td>
<td>-2.97</td>
<td>-5.32</td>
<td>I(1)</td>
</tr>
<tr>
<td>Lag VIDE (Int &amp; Trend)</td>
<td>-4.33</td>
<td>-3.59</td>
<td>-5.46</td>
<td>I(1)</td>
</tr>
<tr>
<td>Lag LISE (Int)</td>
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<td>-4.82</td>
<td>I(0)</td>
</tr>
<tr>
<td>Lag LISE (Int &amp; Trend)</td>
<td>-3.65</td>
<td>-2.95</td>
<td>-3.82</td>
<td>I(0)</td>
</tr>
<tr>
<td>ECM(-1) (Int)</td>
<td>-3.62</td>
<td>2.94-</td>
<td>-3.91</td>
<td>I(0)</td>
</tr>
<tr>
<td>ECM(-1) (Int &amp; Trend)</td>
<td>-4.19</td>
<td>-3.52</td>
<td>-6.07</td>
<td>I(0)</td>
</tr>
</tbody>
</table>

Source: Author's computation using E-views 7

The results of the ADF unit root tests in Table 1 reveals that the RGDP and lag GDP variables are stationary at I(0) levels but MCAP and lag of MCAP were stationary at first difference I (1). Also, lag of VSTS is stationary at order I (0) under intercept and intercept and trend. Lag of VIDE is stationary at order I (1) while the lag of LISE and ECM(-1) were stationary at order I (0) under intercept as well as intercept and trend. The stationarity of the variables are at 1% and 5% levels in both intercept as well as trend and intercept. By summary, the results of the ADF tests suggest that all the variables of interest have a unit root (i.e., the alternative hypotheses of all the relevant variables having unit root could not be rejected). This means that in order to eliminate possibility of spurious regression results and enormous inferences, the initial and first differences of the relevant variables in the estimation process are used.
Table 2: Johansen cointegration test

<table>
<thead>
<tr>
<th>Hypothesized</th>
<th>Trace Statistic</th>
<th>Critical Value</th>
<th>Prob.**</th>
</tr>
</thead>
<tbody>
<tr>
<td>None *</td>
<td>632.3531</td>
<td>69.81889</td>
<td>0.0001</td>
</tr>
<tr>
<td>At most 1 *</td>
<td>421.0522</td>
<td>47.85613</td>
<td>0.0001</td>
</tr>
<tr>
<td>At most 2 *</td>
<td>270.0575</td>
<td>29.79707</td>
<td>0.0001</td>
</tr>
<tr>
<td>At most 3 *</td>
<td>145.7833</td>
<td>15.49471</td>
<td>0.0001</td>
</tr>
<tr>
<td>At most 4 *</td>
<td>32.58137</td>
<td>3.841466</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Trace test indicates 5 cointegrating eqn(s) at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Max-eigenvalue test indicates 5 cointegrating eqn(s) at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

| Normalized cointegrating coefficients (standard error in parentheses) |
|-----------------|-----------------|-----------------|-----------------|-|-----------------|
| RGDP            | MACAP           | VSTS            | VIDE            | LISE           |
| 1.000000        | 26.22818        | 9.801385        | -37.17327       | 3.440042       |
| (4.14596)       | (11.2995)       | (9.63010)       | (0.50060)       |

Source: Author's computation using E-views 7

The result of the co-integration as in Table 2 suggests that there is co-integration among the variables (real economic growth - RGDP and the other variables. This endorses the unit root test in Tables 1.

Table 3: Regression Result (ECM)

Dependent Variable: RGDP

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-2.700271</td>
<td>0.972763</td>
<td>-2.775875</td>
<td>0.0086</td>
</tr>
<tr>
<td>MCAP</td>
<td>3.123028</td>
<td>1.316300</td>
<td>2.372581</td>
<td>0.0264</td>
</tr>
<tr>
<td>lagMCAP</td>
<td>1.090772</td>
<td>0.233777</td>
<td>4.665847</td>
<td>0.0000</td>
</tr>
<tr>
<td>lagRGDP</td>
<td>0.584908</td>
<td>0.189005</td>
<td>3.094664</td>
<td>0.0038</td>
</tr>
<tr>
<td>lagVSTS</td>
<td>2.076858</td>
<td>0.954095</td>
<td>2.176818</td>
<td>0.0650</td>
</tr>
<tr>
<td>lagVIDE</td>
<td>4.318620</td>
<td>2.077399</td>
<td>2.078859</td>
<td>0.0768</td>
</tr>
<tr>
<td>lagLISE</td>
<td>1.456526</td>
<td>0.248025</td>
<td>5.872480</td>
<td>0.0000</td>
</tr>
<tr>
<td>ECM(-1)</td>
<td>-0.672029</td>
<td>0.253593</td>
<td>-2.650030</td>
<td>0.0117</td>
</tr>
<tr>
<td>AR(1)</td>
<td>0.672792</td>
<td>0.131119</td>
<td>5.131137</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

R-squared   | 0.664195    | Mean dependent var | 4.358438|
| Adjusted R-squared | 0.609740 | S.D. dependent var | 1.261799|
| S.E. of regression  | 0.588206   | Akaike info criterion | 0.347429|
| Sum squared resid   | 0.423015   | Schwarz criterion | 0.350268|
| Log likelihood      | -7.573457  | Hannan-Quinn criterion | 3.84825|
| F-statistic         | 12.19716   | Durbin-Watson stat | 2.080242|
| Prob(F-statistic)   | 0.000000   |                 |         |
The coefficient of determination ($R^2$) was 0.873 and it measured the proportion of the variation in GDP (economic development) which is resulting from the four indices of total stock. This figure implies that 87.3% of the development in the economy resulted from increase in total stock. The other 12.7% is accountable for therefore by other factors not included in the study. The F-value of 25.705 significant at 0.05 level of significance go to confirm the relationship between the dependent and the independent variable. Given the SER value of 0.588, means that in about two-third of the time, the dependent variable will be predicted by exactly 58.8% while the ECM indicates that 67% disequilibrium that occurred in the previous year would be corrected in the current period.

The $R^2$ from the estimation (Table 3) show that there is goodness of fits of the model. Given the $R^2$ of 66.4% indicates that the explanatory variables (MCAP, lag MCAP, lag RGDP, lag VSTS, lag VIDE, and lag LISE) explain the explained variable (RGDP) very well. This is endorsed by the $\bar{R}^2$ of 60.9%. This means that the explanatory variables (MCAP, lag MCAP, lag RGDP, lag VSTS, lag VIDE, and lag LISE) have good account of the dependent variable (RGDP). With the calculated F-test statistic value of 12.9 which is greater than tabulated F-stat under 5% and 1% (3.3.4 and 5.45) indicates that at least one of the explanatory variables is statistically significant or that the explanatory variables are jointly statistical significant in the determination of the relationship between the selected variables and economic growth of Nigeria.

For the t-statistic which is used to measure the individual statistic of the independent variable and using the rule of thumb which specifies that any t-value which is not up to two (2) is considered not statistically significant. From the result of Table 3, it is clear that all the explanatory variables are individually significant. From the estimation results of this study, all the variables used in the study, conform to a priori expectation. This could be due to the unique nature of the variables in Nigeria, where there contribution to the economy is huge. It could also be attributed to the huge level of corruption in the economy; where politician siphon huge sum of money. The D.W statistic is 2.08 indicating absence of autocorrelation in the model. This absorbs the model of any serial correlation among the exploratory variables and makes the model/estimation to be acceptable.

**Policy Implications of Findings**

As for the coefficients of the explanatory variables, we observed that outside these variables, economic growth (RGDP) will operate at approximately 58.5 rates because the regression is ran from origin. This means that an increase of one unit in the autonomous will generate a positive increase in the RGDP growth by 58.5 units. It also indicates that there are other explanatory variables that account for the growth of the Nigerian economy. All the variables used in the study, indeed conforms to apriori expectation. The result of the coefficients - MCAP and lagMCAP means that a one unit increase in market capitalization will increase RGDP growth by 312% and 109% respectively. This positive relationship between market capitalization and GDP is not out of literature but could be likely due to the huge rate of investment and corruption in the society. This makes more money available in the economy and leading to all sort of illegal activities going on in the society thereby increasing GDP while market capitalization is still high.

As for lagVSTS, lagVIDE and lagLISE a unit increase in any of them will increase RGDP by 201%, 431% and 145% respectively. Since the result of ECM (error correction mechanism) is non-zero it means that there is disequilibrium between market capitalization and RGDP in Nigeria. This can be corrected by ECM(-1).

**SUMMARY, CONCLUSION AND RECOMMENDATIONS**

**Summary**

This study investigates the relationship between market capitalization and Nigeria’s economic growth using time series data and regression analysis. We utilized the unit root test to
determine the stationarity of each variable under consideration. It was found that some of the variables were stationary at I(0) while others were stationary I(1). The result also indicates that the five variables (market capitalization and real GDP) were co-integrated. The result of the regression analysis indicates that the model has a good fit with R^2 of 66.4%. The result of the F-statistic shows that the independent variables are jointly significant in the determination of market capitalization and Nigeria’s real GDP. The result of the t-statistic shows that in the estimations, all the variables statistically significant and reveals a positive impact on our Nigeria’s economic. This is in line with the study by Babutude, (2004): “There can be no negative relation between real economic growth and market capitalization, because GDP and market capitalization are both rising in the long run”. It is evident that market capitalization will only increase if GDP is rising faster than productivity. In the EU, during the nineties a real GDP rate of 1.8 percent was necessary to keep market capitalization constant but, as investment and trading increased at a rate of 2.3%, it was necessary to keep market capitalization constant at the existing activities at the market. The result of ECM shows that there is disequilibrium between market capitalization and real economic growth in Nigeria in the previous year and that 67% of this disequilibrium can be corrected in the current year. Finally, the D.W statistic shows that there is absence of serial autocorrelation.

Conclusions

The paper concludes that capital market specifically provides funds to industries and governments to meet their long-term capital requirements for fixed investment like buildings, plants and machinery and other public infrastructures. Empirical studies however, indicate that the role of the Nigerian capital is limited. This is shown by its low contribution to the level of capital mobilization and investment as evidenced by the low market capitalization over the sphere in review. Although the federal government had complemented the role of the Nigerian stock exchange through the establishment of some key development finances institutions to provide specialized long-term capital for sectoral growth and development the impact has not been fully felt.

With the recent reforms in the economy, particularly in the banking sector, there is need for the capital market to develop the required resilience towards evolving a financial infrastructure that would engender economic growth and transformation in the economy. Finally, there is an obvious challenge to urgently develop a vibrant bond market to allow the private sector access to a larger number of best instruments in order to enhance the management of their liabilities. However, in real world conditions for maximum efficiency in performances are unlikely to exist. Yet even though this conditions may not be fulfilled, in practice with the reforms and globalization performances will be enhanced and realizable if sufficient participants have equal access to adequate stock information. Given the position the Nigerian capital market cannot be said to have perform excellently as the need for further review becomes apparent when compared to other countries of the world.

Recommendations

Findings of the study shows that the performance of the Nigerian capital market to a large extent has contributed to the development of the Nigerian economy and has provided the opportunity for a given class of investors to finance and expand their business. This feat notwithstanding it is obvious that the capital market is still faced with more challenges that require urgent attention. Also, there is need to evolve comprehensive measures to strengthen, broaden and deepen the market to enhance its intermediary role in financing economic activities. The accelerated upgrade of systems needs to be sustained while the regulatory and prudential framework should continuously be reviewed to facilitate better disclosure standards and transparency for transactions. We therefore recommend the followings:

✔ There is need to open up the capital market and promote free flow of information in its operations as it is the case in other countries: firms listed on the stock exchange should be published quarterly and half-yearly reports in addition to annual reports on their operations with detailed explanations on the drivers of the performances.
The capital market should be at the forefront of ensuring financial integrity in order to minimize the potential effects of the risk of contagion as well as reduce systemic risks. Thus, there is the compelling need to strengthen the enforcement of the corporate governance code among listed companies which is essential for promoting investor confidence and inducing sustained long-term growth of the capital market. In this regard, the proactive stance of the management of the Nigerian stock exchange and the Securities and Exchange Commission in their respective efforts at raising the standards of capital market operators should be sustained.

There is need to take the capital market window to more towns and cities in Nigeria for greater width and enhanced growth. Improvement in the availability of social infrastructure such as electricity and media equipment in homes would boost nationwide information dissemination.

There is need to canvass for self-regulation in the institutions of the capital markets as well as the cooperation and full commitment of operators towards a high level of professionalism and high ethical standards. In this regard, the imposition and enforcement by the regulatory authorities would be a welcome development. The years ahead would be increasingly demanding and competitive, and only the adoption of good corporate governance by institutions, market participants and intermediaries can guarantee sustainability.

There is need to review the regulatory framework in line with international best practices to entrench market rules and principles that would enhance good corporate governance in the system. The existence of such market rules attracts public confidence for the market.

The regulators of the capital market should encourage more derived financial products such as pension funds and mutual funds, which could serve as vehicles for mobilizing funds for investments on the stock market.

BIBLIOGRAPHY


