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# STOCK MARKET PERFORMANCE AND ECONOMIC GROWTH IN NIGERIA (1985 – 2018)

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## ABSTRACT

This study examines the relationship between stock market performance and economic growth in Nigeria. The study adopted the ex post facto research design. Secondary data were sourced from Central Bank of Nigeria (CBN) Statistical Bulletins and Securities and Exchange Commission Statistical Bulletin from 1985 to 2018. Cointegration, normality and descriptive statistics tests as well as ordinary least squares regression analyses were conducted. The cointegration test showed that there is a long-run equilibrium relationship between economic growth (GDPr), money supply (M2R), credit to private sector (CPSR), market capitalization ratio (MCR), number of securities listed (NSL) and turnover ratio (TOR) while all share index (ASI) and monetary policy rate (MPR) did not have a long-run equilibrium relationship. The pvalues of the ordinary least squares regression test results were used to test the research hypotheses. The findings revealed that there is a significant relationship between market capitalization ratio, total number of listed securities and economic growth rate in Nigeria. Also, there is a significant relationship between turnover ratio and economic growth rate in Nigeria. The finding further revealed that all share index has insignificant influence on economic growth and financial deepening growth rate in Nigeria. Additionally, there is a significant relationship between monetary policy rate and the financial deepening growth in Nigeria. The results also indicated that there is a significant relationship between stock market performance indicators and the financial deepening growth in Nigeria. It was concluded that there is a significant relationship growth in Nigeria. between stock market performance and economic Recommendations were that there is need to improve trading on stocks by encouraging more companies and securities to be listed on the stock exchange for more equity capitalization. The Central Bank of Nigeria should control the level of money supply as well as credit to private sector for more financial deepening in order to galvanize stock market activities.

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# 1. INTRODUCTION

Capital market contribution to the socio-economy development and growth of both the developed and the developing economies such as Nigeria's has been generally recognized by many studies within and outside of Nigeria (CBN, 2007). It is believed that this role is attainable following the various functions it plays in channeling of financial resources and promoting reforms in a bit to augment the strength of the financial intermediation sector and connect the deficit sector of the economy to the surplus sector. However, the major aim for establishing such markets stemmed from the widely held view that direct credit has failed to foster growth. Stock markets are supposed to stimulate the growth of the economy by mobilizing capitals for companies, investment needs and by ensuring efficiency in the allocation and utilization of capital. According to Ibenta (2000), the deficit and surplus units of the economy are linked during the mobilization as well as allocation of funds in the midst of competitive environment, which are vital to investment locally. Capital market is a broader word that includes the stock market and other avenues for trading financial products. In this regard, the linkage of the various economic units as observed above is achievable given that stock markets have been noted for stimulating the growth of the economy by mobilizing funds for companies' investments needs as well as ensuring efficiency in the allocation and utilization of capital in the domestic economy especially the develop economy.

Issahaku, et al. (2013), view Stock markets generally as markets set up as a platform for raising long term capital to mitigate the problem of capital constrain, which is even more crucial in developing countries. In other words, it is the

crucial part played by the stock market as one of the financial institutions that promotes capital creation efficiency as well as allocation of capital for prolific purposes. In a similar perspective, Baya, *et al.* (2014) view stock market as a foremost and essential portion of the monetary structure that makes it easy for organizations to raise funds through the issuing of shares as well as providing enabling atmosphere for the firms to trade their shares competitively. Theoretically, a rising literature opines that stock market provides services that enhance the growth of the economy (Levine and Zervos, 1998). Also, the liquidity of stock market as the ease for trading equity easily is imperative for the growth of the economy at long-run. More so, this is because a stock market void of liquidity will impede lots of lucrative industrial investments given that investors are likely going to be hesitant to stalemate their investments for lengthy period of times. This does not auger well for the economy since investments that raise the growth and the development need long term financing, and usually for a longer period of time than those for which the majority of investors are keen to entrust their capitals (Ologunde, *et al.*, 2006). Moreover, stock market is most likely suited in this picture and can efficiently rally funds for longer period of time enough to allow for production and return of investments in every economy.

Mishkin (2001) is of the opinion that the development level of a particular country plays a vital part in deciding the significance and the nature of the relationship existing between stock performance and economic growth. It is asserted that that this effect is most felt in emerging economies. Also, the argument is that a well-developed financial structure encourages investments since it can easily identify and finance productive investments. Furthermore, spreading of risks and enabling goods and services exchange is easily attainable in a developed market. The prevalence, stock markets development and growth in developing nations such as Nigeria have just recently witnessed an increase. In spite of the small scope and the illiquid atmosphere of Nigeria's stock market, its continual existence as well as performance might have significant influences on economic activities (Alajekwu and Achugbu, 2012). For example, even in less developed economies, Pardy (1992) opined that capital markets are capable of mobilizing local savings and are also capable of distributing the mobilized funds in a more effective and efficient manner for productive activities. Hence, according to Nyong (1997), stock markets play essential part in stimulating and enhancing the economic growth particularly in a less developed economy like Nigeria by domestic savings mobilization and channeling such investments for prolific uses. Economic growth and development are undoubtedly enhanced by such mobilization of funds to diverse sectors of the economy. Thus, stock markets are seen as multifaceted establishments permeated amidst essential means where long term capitals of the key economic sectors encompassing families, businesses, and government are gathered, joined, and made accessible to the different economic sectors.

As economies develops, extra funds are thus considered necessary in meeting up the swift enlargement, and stock markets serve as suitable instruments in savings mobilization and allocation amongst competing units that are significant to economic efficiency and growth (David-Wayas, 2014). El-Wassal (2013) suggested that stock markets may perform what he termed as an act of magic within the economy by allowing investments with longer period of maturity to be funded by funds supplied by persons, businesses and governments who may not wish to withdraw such funds at will. Furthermore, stock markets boost the efficiency of the monetary structure by competing amongst various categories of financial tools. This adds to the savings return for individuals who save and reduce funds raising cost to borrowers. Despite identified potentials in the stock market, the conventional theorists are of the view that generally, the financial market has no relationship with the growth of the economy. Studies of Ake and Ognaligui (2010) support this view. Stiglitz (1993) further shows that stock market liquidity does not offer information acquiring incentives pertaining to companies as well as enhancing corporate governance. Furthermore, Nurudeen (2009) asserted that a well performed stock market could thwart the economic growth by boosting counter-productive company takeovers. Additionally, Singh (1997) maintained that stock market is probably not being imperative in reaching higher growth of the economy. Based on these conflicting views, it becomes necessary to examine whether there is a significant empirical link between stock market performance and the growth of the economy in a developing country like ours.

Scientific assessments concerning the nexus between stock market performance and the economic growth have been comparatively narrowed in developing nations, particularly in Nigeria. Theoretically, the relationship has been a subject of controversy. For instance, previous works conducted have unanimous conclusions on the causal link between stock market performance and the economic growth. Selected researches maintained that the performance of stock market intensely galvanize the economic growth (Adenuga, 2010; Ohiomu and Enabulu, 2011; Abiodun and Elisha, 2012). Others opined stock market performance slows the growth of the economy (Demirguc-kunt and Levine, 1996; Nurudeen, 2009). Levine (1997) posits that Nigeria has a very illiquid stock market, which cannot grow at a fast rate to stimulate the growth of the economy. Meanwhile, in 2012, Alajekwu and Achugbu stated that market value traded ratios and market capitalization have downbeat link with economic growth, while turn-over ratio has an exceptionally, well-built constructive relationship with economic growth. These conflicting conclusions show the requirement for extra assessment into the nature of association amongst stock market performance and economic growth and this study is one of such investigations. In addition, previous studies use a single composite measure to assess the performance of stock market that is not really in depth to examine the performance of stock market. This creates severe empirical constraints on the heftiness of their findings for policy implementation. This is because the adoption of diverse and separate measurements of stock market performance and the

economic growth. This study therefore is different from earlier studies carried out on the economy of Nigeria by adopting the appropriate variables which is based on the theories of finance and economic. The proposed idea is also in tandem with the argument that for stock market to boom, prevalent economic environments is essential. Also, for the attainment of the economic growth of a particular country, there is need for a robust and vibrant stock market that facilitates capital allocation thereby promoting the viewpoint for the economic growth in a long term period.

Moreover, the desired economic improvement of any economy is a function of the obtainability of long-term funds and stock market is undoubtedly an indispensable ingredient in stimulating sustainable growth of the economy. Hence, the nature of relationship existing between the performance of stock market and the growth of the economy in Nigeria is examined in this research. The major objective of this research is to examine the relationship between stock market performance and economic growth in Nigeria. In specific terms, the paper seeks to examine the extent of relationship between market capitalization ratio, total number of listed securities and economic growth rate in Nigeria; to determine the extent relationship that exists between turnover ratio, all share index growth and economic growth rate in Nigeria; to investigate the implications of monetary policy rate on the financial deepening growth in Nigeria; and to assess the impact of stock market performance indicators on the financial deepening growth in Nigeria. In line with the above stated objectives, the following hypotheses are formulated in null form to guide this study: Ho1: There is no significant relationship between market capitalization ratio, total number of listed securities and economic growth rate in Nigeria; H<sub>02</sub>: There is no significant relationship between turnover ratio, all share index growth and economic growth rate in Nigeria;  $H_{03}$ : There is no significant relationship between monetary policy rate and the financial deepening growth in Nigeria; and H<sub>04</sub>: There is no significant relationship between stock market performance indicators and the financial deepening growth in Nigeria. The remainder of the study is presented in four sections which include; literature review, methodology, conclusion and recommendations.

#### 2. LITERATURE REVIEW

# 2.1 2.1 Conceptual Review

## 2.1.1 Meaning of Capital Market

Capital market has been termed from different viewpoints. For instance, Nwankwo, (1998) viewed capital market as a market that consist of multifaceted establishments and instrument through which substance and prolonged run money are gathered and made accessible to businesses, authorities and persons. In the viewpoint of Al-Faki (2006), capital market is defined as an arrangement of monetary organizations, sequence of practice, procedures as well as infrastructures, which in different methods, ease in conveying together of medium and long term capital suppliers and users of economic developmental projects for investment. In the viewpoint of the researcher, capital market is known for long term equity and debt instruments. In this market, economic units eager to invest their capitals intermingle through financial intermediation with those desiring to obtain long term capitals for their commercial activities. It comprises of two wide classes – stock market and bond market. Capital market is classified into the new issues or primary market as well as market for already existing securities otherwise referred to as secondary market. The primary market offers an opportunity by which administrations and business organizations mobilized fresh capitals through the floating of securities that are subscribed by members of the public or investors while secondary market offers an opportunity for the sales and purchases of already existing securities. According to Sule and Momoh (2009), the secondary market action encompasses additionally on per capita output of Nigeria by nurturing earnings of stock market by the means of wealth compared to the primary market.

## 2.1.2 Stock Market

Stock market is a market for trading instruments of securities like stocks, which show ownership of shares in the exact organizations that is issuing the securities. These securities are more often than not offered by large companies that the returns in the form of dividends are promised, which depends exclusively on how the issuing company performed overtime. Additionally, investors would also benefit from the increase in the prices of stock. The stocks are frequently listed as well as traded on stock exchanges organizations and they make available exchange services for brokers as well as traders. Stock exchange presents trading services for the issue as well as the redemption of securities. Stock exchange also offers other monetary instruments and capital proceedings which include the disbursement dividends. Occasionally, they are referred to as the exchange of securities to replicate the extensive role they play. Furthermore, bond market involves long-term debt securities such as treasury notes, bonds, and mortgage securities amongst others. A good number of the instruments agree to pay either a particular or fixed stream of revenue that is resolute based on an explicit method over its whole life as well as return face value on maturity. Most people that issue bonds are the government and organizations.

Stock markets, as part of the capital markets, are vital establishment in lasting financial intermediation. For some reasons, stock markets that are well developed are vital for upholding the effectiveness of funds. Firstly, well performing stock markets breed lesser cost of capital that is equity in nature for companies. Secondly, incessant fine-tuning prices of share in a well performing stock market impose mechanism on the investment performance of companies. Thirdly, investors are opportune to price and hedge against risk efficiently in a well-performing stock market. Lastly, stock market works as an

apparatus for catching the attention of foreign portfolio investment, in so doing, growing the existing resources for investment purposes (Demirguc-Kunt and Levine, 1993). The authors hypothesized and assert the idea that finance is imperative for growth. Some theorists see stock market as a meter of the health of the financial structure within an economy since it shows the frame of mind of investors in a given country (Tachiwou, 2010). Inanga and Emenuga (1997) sees stock market as a multifaceted organization instilled with innate device all the way where long term capitals of the key segment of a nation encompassing persons, companies, and governments are assembled, joined and prepared to diverse economic sectors. Capital market and stock market development grant opportunity for better mobilization of capitals, enhanced effectiveness in dissemination of resources and stipulation of appropriate information for evaluation (Nyong, 1997).

# 2.1.3 Monetary Policy

The phrase monetary policy from the CBN discharge on monetary policy concept (2006) is seen as any guiding principle premeditated by the Federal Government through the CBN to manage availability of cost and credit supply. It can also be known as the parameter of monetary supply as well as interest rate by the CBN in a way to regulate inflation and to steady the flow of currency in any given economy. Conversely, in the CBN Series No. 97/03 June 1997, Monetary policy was further described as the blend of actions premeditated to control the worth, supply rate of money within a financial system in line with the projected point of activities within the economy. It means that the surplus supply of money would lead to more requests for goods and services that may result to increase in prices and determination of balance of payment position. Monetary policy is one of the existing instruments of macroeconomic objectives. The principal goals of macroeconomic policy are price stability, external stability and a suitable growth rate.

# 2.1.4 The Structure of Nigerian Stock Market

Recent studies are of the view that the liquidity of stock market is a channel for long-term growth obtainable in advancing economies (Jibril, et al., 2015; Afolabi, 2015). A stock market, devoid of liquidity will hinder a lot of lucrative investments that requires long-term funding from being carried out because most investors would be reluctant and indisposed to commit their funds for longer time periods. Contrary, liquid equity markets enable investors to get rid of their shares when the need arises in so doing allowing organizations to increase capital on suitable terms that is equity in nature. By enhancing longer term, additional, cost-effective investment projects, liquid markets improve the distribution of capital and augments projection to grow the economy for long-term period. Capital market is a well structured market that offers services to increase long-term loans in order to fund, expand and modernize industries. It is also set up to offer a stage where capital suppliers can speedily and simply refurbish their liquidities. Capital market aids the drive of mobilizing capital as well as allocating the financial resources of the country within numerous battling customers for different uses. The important roles executed by the capital markets are catalysts for rapid economic development and growth. This was the purpose and reason for setting up the NSE in March in the year 1960 as Stock Exchange of Lagos. Stock exchange in Nigeria controls the market responsible for the purchases and sales of stocks, Government bonds and debentures and they are all referred to as securities. Akin to otherworld stock exchanges, are two major markets within the NSE. This includes the primary as well as the secondary markets. The primary market is also referred to as the new issue market, where initial capitals are raised. The Government and entrepreneurs were capable enough to get loans long enough to fund developmental plans and growth of industries amongst others via the primary markets. This segment of the market under the NSE has huge effect on the Nation's economy. This tells that Nigeria's nascent industrialists and entrepreneurs may perhaps have no well structured market where they might get loans for long term investment plans

Consequently, the mobilization of funds for long term productive uses in the economy might have been very hard excluding NSE market. Secondary markets under NSE are saddled with the responsibilities of the purchases as well as the sales of existing instruments. NSE via the market segment makes available the opportunity of refurbishing liquidity to the investors as well as permitting the spreading of risks in an effective and efficient manner. Where, those who access such funds like the Government and entrepreneurs keep hold of the financial resources in their investment projects. Exchange actions via these means make available the task of gathering together savings from the those who are willing and are able to save and allocating them to those who are in need of such funds. For this reason, larger percentage of the financial resources goes to those investment projects that have the highest returns given a certain level of risks. This distribution role of the Nigerian Stock Exchange is important in shaping growth generally as well as good organization of the economy of Nigeria. If funds available are not readily made to the economic units with high demand, proficient in productivity at the suitable point in time period, the growth pace of the economy and development would certainly slow (Alile, 1996). The NSE accordingly turn out to be the trademark of the capital market of Nigeria, thus NSE are often used in place of capital market.

## 2.1.5 The Nigerian Stock Exchange Growth

NSE has experienced remarkable growth from inception in the year 1960. The evidence of the growth is seen in the rising amount of traded securities of the capital market, market functionaries as well as capitalization of equity and the size on the floor of the stock exchange. Certainly, many reasons are accountable for these growths amongst them are;a) The possession of the base credit. This was accountable for the large inputs in the third and subsequent growth in stock loan

offering in 1962 and 1961.b) The 1961 administration of tax on income. On this note, not less than one-third of all funds, pensions and future earnings in the country were placed for investment in the government of Nigeria's stocks or face the consequence of forfeiture of valued tax concession. c) National Provident Funds of 1961. This states that, all incomes and Pension funds that are set up later in 1961 that were needed on the Act to input at minimum half of these money in stock. d) The 1964 Insurance Act. This stipulates that, the insurance firms functioning in Nigeria are to invest not less than 40% of their earnings on domestic hedged risks in a particular fiscal year period. And also, not less than 25% of all the domestic investments of these firms ought to be in the securities belonging to government.

e) CBN functioning has largely propelled growth and improvement of stock market in Nigeria by means of its securities. The CBN avails services and offers the apparatus of marketing these securities.f) The 1951 lead firms' ordinance as amended, specifies that only those international firm which enable not less than 10 percent of their paid up capitals are to be held by indigenes will gain from free tax breaks as well as other special consideration as may be required. This certainly motivated firms to offer fraction of their equity capital to Nigerians. h) Privatization of essential Government dominated functionaries and other ventures have to a great extent motivated more transactions in industrial stocks in the Exchange. i) Furthermore, the BOI impacted greatly on the immense growth of the exchange by motivating potential firms to integrate into limited liability companies and subsequently propose to adopt their shares after integration, and lastly advising such firms to submit an application for quotation of stock in the exchange at the right point in time.

## 2.1.6 The Performance of Nigerian Stock Market

Capitalization of equity of the exchange has persistently and progressively risen overtime. It rose from the sum of N5.5 billion within the year 1981 to the value of N9.2 billion in the year 1987 and during this period of growth, Government securities piloted this growth with the sum of N3.9 billion in comparison to N1.9 billion as well as N4.2 billion in comparison to N4 billion in 1981 as well as 1987 in that order. Afterward the sum of equity capitalization not merely demonstrated notable progress; however, in 1995, equity capital blazed the trail by way of having equity capitalization of N177.1 billion against stocks belonging to government which was N3.7 billion. Total market capitalization rose to N13,781.7 billion in 2007; this elevation was attained due to the individualization of certain enterprise by the federal authority (CBN, 2015). Nevertheless by 2008 the impacts of the world wide economic meltdown which commenced in the year 2007 had already started to affect the capital market adversely. And this is evident as foreign investors started to pull out their investment may be to measure up with the expectations from their domiciliary nations. And as a result of this, by 2009 the universal growth rate went down by 80 percent. Even though, that by the fourth quarter in 2009 the market adjustment had began to fall in place, but, the shattered self-reliance in the market is since being in restoration and yet to fully pick up. Since then, market capitalization had constantly to fluctuated downward from -29.8 percent, -23.6 percent, 47 percent as well as 4 percent in 2008, 2009, 2010 and 2011 correspondingly, at the same time as yearly rates of proceeds fluctuated from 19.3 percent, -91.4 percent, 18.7 percent as well as -21.9 percent in 2008, 2009, 2010 and 2011 in that order. Moreover, the amount of listed securities fluctuated as well from 2008 to 2011 as -2.9 percent, -17 percent, - 0.9 percent as well as - 5.8 percent respectively in that order (Okonkwo, et al., 2014).

# 2.1.7 Stock Market Contributions to Capital Formation in Nigeria

Stock market principally survives as a medium for financial resources enlistment. Nevertheless, funds mobilization is limited to the transferring of capitals into new issues; hence, lead to an upsurge in capital creation. The federal authority has mobilized long-standing credits for loaning to the county as well as state governments for crucial infrastructures via the stock market ever since the inception of NSE. The federal government advised the state governments to explore the stock market in mobilizing long-term funds for developmental infrastructures. Thus, the state governments can be subjected to market regulation. Presently a good number of states have mobilized long term capital via the stock market for huge projects geared towards development. What's more, the liberalization of foreign exchange market, interest rate structure deregulation as well as policy of dividend made stock market in Nigeria a key alternative in the formation of capital. Additional firms now utilize the stock market services for upholding her balance sheets and hence growth. This process, has also led to the flood of debenture stocks, rights issues, as well as offers for subscription. Due recognition has been given by the NSE on the need of turning small as well as medium scale corporations into large enterprises by introducing in 1985 the Second Tier Securities Market for the encouragement of small as well as medium scale businesses in the nation. And this is being achieved by offering services at the market to enable potential small as well as medium scale home-grown businesspersons to get the needed capital for growth and transformation of their industry at lesser stern requirements associated with listing. The second tier securities market also influenced enormously the process of capital formation of the country and afterward, reducing unemployment (Okonkwo, et al., 2014).

# 2.1.8 Capital market contribution to socio-economic development of Nigeria

Capital market is exceptionally essential to the growing economy, development as well as the potency of a nation because the market promotes corporate, government ideas, finances ideas as well as enhances the spread of risk inherent in the financial resources. The growth of economy pace is associated with the complexity of the capital and financial markets

organizations at large. Both markets make possible the recruitment and distribution of capital into industrious use and making sure that the capital mobilized are utilized for achieving socioeconomic growth and development devoid of being dormant (Akinbohungbe, 1996). The Nigerian capital market has grown immensely overtime, typically all through the indigenization periods of 1972 and 1977. The securities rose from 8 in 1961 to about 301 in 2008. Overtime, the market has experienced steady and also recorded astonishing growth as well. This has placed the market to have significant effect on the nation. An apparent indication that the financial market continued to be a vital means of fund for the country's development in the areas of financing infrastructural facilities as well as the privatization program of the government in Nigeria. In this regard, Sule and Momoh (2009) are of the view that the current endeavor by the government in carrying out a successful consolidation program exercise of the main financial organizations in one hand and privatization program exercise of publicly owned corporations in the other hand attests government's confidence in the capital market as a tool to galvanize growth of the economy in Nigeria. Capital market is a feasible source of funding state as well as local government infrastructural investments and developmental advances with a lesser amount of pressure. The initial state that sourced money from the market was the State, the then Bendel state which was offered 20 million naira for a period of ten years and that constitutes 7% stock loan of the then Bendel in the year 1978 and the loan expiration date was 1988 (Oke and Mokuolu, 2004). The purpose of the loan offering was to fund a project on housing.

Another state that raised money from the market is Ogun state in the year 1986 to fund a construction geared towards access portable water in Abeokuta for the state. They were issued a twelve percent loan stock of fifteen million naira which was to be due in the year 1996. Lagos State also explored the market in the year 1987 and 1988 respectively. They were able to raise a total of ninety million naira which was thirty million for the first tranche and sixty million naira for the second tranche and both was for the 1st and 2nd phase of project in Lekki Peninsula. Oyo State also sourced sixteen percent thirty billion naira Bond in the year 1999 in order to develop Adamasingba Complex as well as Gbagi market. Furthermore, the government of Kaduna State sourced thirty million naira twice in the year 1989 to 1993 each to fund the construction of the state factory for processing Ginger. Local government in Lagos State benefited also from the market to fund a shopping mall. It was a hundred million naira bond with about twenty five percent rate of interest. (SEC, 2002). In addition, Edo State accessed the market as well in raising the first Edo State 21% five hundred million naira Floating Rate Revenue Bond in the year 2002 &2006. The purpose was to fund the reformation of the stadium and other vital projects. Overtime, many other States have accessed the capital market to fund projects geared towards development. such as, Ekiti State who raised four billion naira in the year 2002 to fund the rehabilitation and construction of roads, expansion of water project, rural electricity and establishing plantation among others. Yobe State also sourced 2.6 billion in the year 2001 for road construction, good drainage system and housing development.

Moreover, Akwa Ibom State sourced six billion naira for infrastructural development, Also, Delta State were able to access market to raise five billion naira for socio. economic development of the state. Cross River State were able to access the sum of N4 billion for expansion and improvement of Obudu cattle Ranch. Edo State also sourced one billion naira for the financing of Estate development. Oluitan and Anne (2013) while lamenting on the low degree at which federating units accessed the market for funds, the capital market was also seen as an authentic source of funding for the cash-strapped universities yet to be harnessed. The Capital Market performed an imperative task in the privatization of Enterprises Owned by the State by making sure that the exercise was credible and transparent. Enterprises Owned by the State were sold out and the earnings were realized. Also, the shares of the Enterprises Owned by the State were offered to the public and all interest parties via public offers. The N25 billion recapitalization of banks in which 24 banks (but formally 25 banks before the merger of Stanbic and IBTC bank and FCMB and Finbank) materialized from the initial eighty nine banks evidently showed the significance of the capital market, virtually all the banks in the country were capable of raising the needed fund after accessing the capital market via first public offerings. In 2005, \$650 million fund amount was invested in the sector of banking. The amount realized from the markets by deposit money banks to achieve the least capital requirement of N25billion stood at N406.4 billion (A1-Faki, 2006).

## 2.1.9 Performance Measures of the Stock Market

The performance measure of the stock market can be classified into three major segments: traditional segment, institutional segment as well as asset valuing segment (Demirguc-Kunt and Levine, 1996b). Old-fashioned features dealed with the vital measures of assessing the stock market growth. These consist of market capitalization, listed number of securities and number of quoted companies. While the institutional features entails the variables that reflect the position of regulatory and supervisory institutions in the system such as the disclosure of information, transparency requirements, market barriers, trading costs. Finally, the asset valuing feature of the market entails the effectiveness of the market as regards to the pricing of risk.

#### 2.1.9.1 Traditional distinctiveness

The traditional stock market features are mainly applied in measuring the relationship existing between stock market performance and the growth of the economy. These consist of stock market size, liquidity and concentration. Stock market size: A universal index used to appraise the size of the stock market is the market capitalization. This is the sum total of the

listed shares. This performance measure is often used for assessing the size of the market, as it applies to the relative influence of the stock market on the economy as a whole. The supposition is that the proportion of market capitalization is certainly linked with the mobility of capital and the possibility of diversification of risk. When calculating the variable of capitalization of market, the stock market capitalization is used to size the economy to land at a size weighted variable that more precisely assess and hence, an enhanced surrogate for the relative level of the performance of stock market. To determine the impact of market size on growth, the ratio of capitalization is employed which is the sum listed shares divided by Gross Domestic Product, which is taken as an indicator of market size for the performance of stock market. This ratio weighs the stock market size capacity to rally funds and facilitate risk diversification. An additional appraisal of the market size is the total companies listed and their expansion rates.

(ii) Liquidity: Liquidity is the investors' capacity to purchase and put up for sale securities without difficulty. Levine (1997) opines that liquidity is the easy and quick way in market operators can alter their assets into cash at settled prices. Previous works have not been able to show the tiny difference that exists amongst stock market liquidity and turnover ratio. For example, Al-Faki (2006) is of the view that the liquidity of stock market also symbolizes the market turnover ratio. He put forward that turnover, or by and large liquidity can fit in as outlook index; as a result representing an indicator of the mind of investor'. Is a vital pointer of the stock market performance for the reason that it shows how the market assists in enhancing capital allocation and consequently promoting the projections of long-run growth. However, this is achievable via the capability of the fund users to speedily and reasonably purchase and sale their securities thereby minimizing the risk level of their investment and enhancing investments in viable project that will yield more output despite the fact that it will take a long period of time (Osinubi, 2002).

- a) The proportion of market capitalization: To obtain this, the worth of quoted firms' capitalization is divided by gross domestic product. It offers an assessment of the stock market dimension comparative to the economy size. It is an adequate assessment of the comparative of the stock market extent in the nation. Market capitalization is arrived at by multiplying the share price by the shares outstanding number. This measures the size of capital market and is applied to ascertain developmental level of the capital market relative to the economic growth of the nation.
- b) Value traded ratio: This shows the total worth of traded shares overtime. Total traded share value that is divided by gross domestic product shows the level of market liquidity. Market liquidity is simply how quick the securities in the market are traded. This indicator complements the capitalization ratio of the stock market and shows whether the market size is relative to its trading activities. The total value of securities traded proportion is the whole worth of offer marketed in the stock market divided by Gross Domestic Product. It is a liquidity based assessment which provides the value of organized marketing of company as national output share. This indicator is normally applied side by side as the proportion of market capitalization as in growing market because; the extent of the market can be comparatively big but marketing activities still at very small extent. Stocks traded refer to the whole worth of share marketed at a given time.
- c) The proportion of Turnover: This entails the overall worth of traded shares over a particular period of time divided by the mean equity capitalization within that period. The turnover ratio is an additional measure of liquidity that is equals to the total worth of shares divided by equity capitalization of the market. Quite the opposite to the total traded shares value divided by gross domestic product ratio, which shows the worth of traded shares compared to the economy size. This pointer evaluates trading comparative to the stock market size. As a result, it aids the identification of little but very functional stock market with potentials of growth. By applying both liquidity and alongside market capitalization ratio of assessment and a clear picture of the level of how well the stock market has performed overtime can be obtained.

Demirguc-Kunt and Levine (1996a) recognized two major rationales for the imperative of liquidity in the categorization of the performance of stock market. Liquidity shows the level of investment risk. Investment project is considered less-risky where an investor can speedily and in expensively alter their portfolios. Secondly, supposedly, allotment of funds is more resourceful seen that liquid market propels long run growth. In addition to the aforementioned, Osinubi (2002) stated that market liquidity enhances lucrative dealings between the stock market and the money market. Shares are without doubt good enough as collateral for bank loans in so doing, improves investment of credit. According to Levine and Zervos (1996), liquidity of stock market is a vigorous indicator of real per capita growth merely after taking into consideration primary education investment, openness to trade, fiscal policy, political stability as well as the stability of macroeconomic indicators.

- (d) All Share Index: The index of a market is a rapid technique of assessment to derive the general trend of the market and the extent of its progress. The index of a market is a algebraic factor to replicate the market features value complexity. It is the weighted value of the cost of all firms' shares on the exchange, regularly used as a lead to evaluate the performance of various corporations and industries. It is also a sequence of figures which illustrates the varying standard value of all companies share prices on the stock exchange, which is adopted as an assessment measure to know the extent of the performance of the market overtime.
- (iii) Market Concentration: This feature assesses the intensity of dominance of the market by a small number of companies. Market concentration refers to the share capitalization accounted for by the dominant enterprises most especially the international business firms than the indigenous firms, for instance, fraction of selected biggest stock to total capitalization

in the market. The importance of concentration as an assessment indicator of the performance of the stock market and the likely extreme consequence on market liquidity cannot be overemphasized. The market capitalization share accounted for by the most traded stocks frequently indicates the level of concentration of the market. If the market is controlled by a small number of companies, they can influence the process of price formation. Consequently, a high proportion of market concentration is not sought-after. Nations with high markets concentration have undersized markets. Consequently, market concentration is theorized a negative relationship with market size and liquidity. Numerous academicians in the field of economics and finance in Nigeria put forward that the Nigerian stocks market is dominated by a few companies (Inanga and Emenuga, 1997; Osinubi, 2002). By this, a huge value signifies less development of stock market. The extent of market concentration is imperative to give one an idea about the actual working wellness of the market. A market with high concentration level is an evidence of intense and market illiquidity. In such situation, there are minimal profits of spreading of risk in the markets.

Institutional distinctiveness:

- (i) Regulatory Institutions: The regulation of institutions is an approach of propping up the faith of investors in stockbrokers and any other mediators and stakeholders in the capital market. It enables transparency and market operation's fair play. As a result, boost investment and stock market trading. Nigeria stock market had from the start guaranteed that a well-built institutional structure was prepared via the creation of Capital Issue Commission although, it has no backings legally. And soon after, it converted to Nigeria Securities and Exchange Commission (1979) Another point to note according to Inanga and Emenuga (1997) is the self-regulatory institution function attributable to Nigerian Stock Exchange.
- (ii) Price of transaction: A comparative indicator of stock market efficiency is cost intensity incurred in stocks transactions. The higher the cost of transaction is perceived to be, the more inefficient the market is. Transaction can be seen either in the viewpoint of the companies or the investors. Companies' viewpoint entails total expenses experienced in the tender to loan stock offer or equity to the public. Alternatively, from the investor's end transaction cost includes total expenses experienced in the sales and purchases of shares securities or loan stocks. The prominent costs incurred in the capital market of Nigeria comprises of: application fee (0.5%), valuation fee of 0.75%; brokerage fee of 1%; and vending fee of 1%. Others cover the payment made to solicitors, auditors, administrative costs as well as expenses incurred for advertising according to Inanga and Emenuga (1997).
- (iii) Market Barriers and Trade openness: prior to the promulgation of the indigenization decree of 1972, foreign investors were not restricted in the capital market of Nigeria. Nigeria Investment Promotion Decree was later modified in the year 1977. Amongst other stern actions taken, it successfully restricted the influx of capital to a full value of 40%. That is, equity held in securities listed. The Decree was once more modified in the year 1989, period of privatization. Nevertheless, complete market deregulation was achieved by the Nigerian Investment Promotion Commission Act of 1995, Foreign Exchange Miscellaneous Provisions Act of 1995 as well as the Investment and Securities Act of 1999. Hence, foreign investors participated in the Nigerian capital market's activities both as market participants and investors. As at 2001, there was no limit to the foreign companies holding's percentage in any registered firm in Nigeria (BGL Financial Monitor, 2001).

Open economy captures the extent to which opening of an economy could influence the performance of the stock market and the growth of the economy. Theoretically, Trade openness has frequently been referred to as enhancer for growth, due to the fact that it allows countries to use its comparative advantage and benefit from international trade. Though, empirically the results vary. The openness of trade is measured by the total of imports and exports of goods and services over gross domestic product. Some control variables as exchange rate and foreign investment were also included.

Because Trade Flows and FDI can be linked, the FDI was equally included in the measure of trade openness. FDI is a vital foundation of stock market performance. Foreign direct investment also plays the role of mobilizing household savings within the nation via job formation and facilitation of technology transfer (Singh, 1997). In the absence of FDI, it would have been almost impossible the raise the huge sum of the needed capital from the nation's domestic savings. The effect of the long run influx of foreign capital into the economy is extensive than the gains from the earlier inflows. International investment is connected with regulatory and institutional restructuring, listing requirements satisfactory disclosure as well as practices relating to fair trading. The raise in operational and informational efficiency has been projected to arouse better assurance in the markets domestically. This boosts the investor's trust, confidence and participation, hence, pilots additional floods of capital into the stock market. Flows of Capital are determined using international investment as a percent of GDP.

Asset Pricing Features: This entails the efficiency and effectiveness of risk pricing in the market. The key benchmark for assessing efficiency and effectiveness of market prices encompasses the informational content characteristic of the prices. The price of the market is deemed efficient when; it sufficiently and rightfully shows all information that is available from the past, the present and the future information, which can be accessible to all market participants concurrently. It is referred to as semi-strong. According to Inanga and Emenuga (1997), when the existing prices of the stock mirror the information enclosed in the past prices and when all public information are available with slight predictive worth, the market is considered as weak.

## 2.1.9.2 Financial Deepening and Measurement

This appraises the impact of the monetary policy's instruments on the financial sector. The strength of financial sector, as determined by money supply (M<sub>2</sub>) ratio to GDP as well as the credit to private sector ratio (CPS) divided by GDP, is regarded as the financial sector deepening. It shows the ability of the banking system to make available liquidity for the trade of goods and services (CBN, 2015). Growth is measured as GDP over time. GDP is obtained by the summation of the market price worth of all produced goods and services at a particular time as well as the total worth of all firms in any given economy. It has been revealed that the performance of stock market ought to be connected positively to the intensity of real economic activities as determined by GDP. What's more, the performance level of the market is long- established by the proportion of capitalization of market to gross domestic product. This will furthermore, reveal the capacity of economic activities as well as growth of any given economy. GDP is applied in this study as growth rate.

## 2.2 Theoretical Framework

Two important theories explain this study. These are financial liberalization theory and market based asset allocation theory. They are discussed below:

# 2.2.1 Theory of Financial Liberalization

This theory originated from the work of Patrick (1966). The theory focused on the association existing between financial growth and development of the economy. This theory proposed two theoretical approaches namely; demandfollowing and supply - leading approaches. The demand - following technique proposes that as economies begin to develop, development of financial institutions takes place, whereas supply-leading technique states that the prevalent increase of financial institutions pilots growth of an economy (Arestis, 2005). Shaw (1973) and McKinnon (1973) supported this theory when they stated that financial deregulations can wield an encouraging influence on the rate of growth as interest rate levels rise in the direction of their competitive market equilibrium, at the same time as resources are proficiently allocated. In the view of Arestis (2005), the correlation existing amid the development of financial sector and the growth of the economy has gained prominence all through the contemporary history of economics. Moreover, there is an armful of empirical works that made available sufficient proof signifying a positively connected relationship between financial market and growth of the economy. However, the discourse is now about spotting out the means via which financial markets are allied to the real economy. Pagano (1993, as cited in Bekaert, et al., 1995), pointed out that there are three major ways through which financial institution and economic growth are associated simultaneously. The number one means he pointed was that a well performed financial market enhances savings proportion that is channeled to investments. The next one was that financial market transforms the saving rate, which in turn influences Investment and the last point noted was that capital allocation efficiency is augmented by the financial market. a good number of the literatures on hand argues that the most imperative of all is the second and last channel, by which the financial market intermingles with the real economy, i.e. by the efficiency in capital allocation (Beakaert and Harvey, 1997). The relevance of the theory to this work is that stock market is a financial institution in Nigeria, which its expansion in investment portfolios and development could contribute to the growth of the economy.

# 2.2.2 Market Based Asset Allocation Theory

Market Based Asset Allocation Theory was put forward by Markowitz (1952; 1959). This theory explains the need for the allocation of investment portfolio efficiently given a certain level of risk and return. The theory is on selection of portfolios, which led to the uprising of finance theory and brought about the basis for theory of capital market in modern time. Contemporary theory on portfolio elucidates asset portfolio's construction and selection based on a certain level of risk, the projected investments return and risk choices of folks. The inference of the normative approach of the Markowitz model stipulates that portfolios is based on predictable risk and return as well as the covariance of return among each asset's pair are planned by finance experts. The portfolios are chosen from those hanging on a proficient frontier which depicts the tradeoff flanked by risk as well as return. The frontier is proficient for the reason that the end result of the selected choice has the maximum predictable return for same risk level. The theory is associated to the work due to the fact that investment portfolio diversification encompasses taking of risk. Steinbach (2001) in his work postulated that selection of portfolio entails the supposition of the investor concerning his expectations and is thus denoted by the likelihood of asset returns distributions. These likelihood distributions are hence dependent on the judgment of market analyst as well as statistical projection from chronological information. The dimension of the anticipated return on portfolio is dependent on the aggregate of the experiential returns on asset. Risks are measured as the portfolio variance that is derivable from the asset returns covariance (Santos and Haines, 2004).

## 2.3 Empirical Review of Literature

Empirical literatures on the association between the size of the stock market and the growth of the economy are examined. The problem with these literatures is diverse findings. While some of them established that the size of stock

market promotes the growth of the economy (positive relations); some others disagree at this position (negative relations); no relation while there are also armfuls of literatures that posed inconclusive findings.

## 2.3.1 Relationship between Stock Market Size and Economic Growth

Among authors who posit constructive relation between capitalization of stock market and the growth of the economy were Ujunwa and Salami (2010), Nurudeen (2009), Esso (2010) among others. These studies posited that the capability of the market to rally funds, advance the investment quality and quantity and step up growth depends on stock market size. Nurudeen (2009), for instance, employed the error correction model (ECM) and considered whether the performance of stock market elevates the growth of the economy in Nigeria and the econometric findings revealed that a well performed stock market as measured by market capitalization ratio raises the growth of the economy. The study further suggested the elimination of barriers to the performance of stock market which comprises of fiscal, legal as well as regulatory obstacles; improvement of the country's infrastructure to build a conducive atmosphere for where industry can go all-out; employing policies that will boost the output and effectiveness of corporations and additionally inspire them to the stock market access or capital market at large; enhancing the ability of the Nigeria Security and Exchange Commission to smooth the stock market progress, re-establish the self-confidence of the participants in the stock market and protect the share holders interest by scrutinizing the market of sharp practices of market agents mostly that of the speculators.

Adjasi and Biekpe (2006) employed same Ordinary Least Square method to assess the association among market capitalization, the growth of the economy and development respectively. The discoveries from both studies were consistent. The result of their finding shows that market capitalization speeds up Nigerian economic development. Further finding revealed that there is a positive connection between market capitalization and the growth of the economy. They also stated that the association between capitalization of market and the growth could be as a result of the ability of markets to efficiently integrate projected future growth into current market prices thereby, exerting increase in market capitalization. They added that this connection is present more strongly within higher income countries. Hence economies with more developed financial markets are expected to be more efficient as well as been able to integrate projected future growth into present prices. Adenuga (2010) used quarterly data (1990:q1 to 2009:q4) in his analysis on the Nigeria economy by employing the vector error correction (VEC) technique and exploring the pointers of the development of stock market development and how it propels growth. MCR was adopted measured by stock market development in Nigeria and the findings reveal that there exist a positive connection amongst the development of the stock market indices, growth as well as the test is in line with the discoveries of Levine and Zervos (1996), Demirgue-Kunt and Makismovic (1996).

Akpeta and Josiah (2012) used twofold tools of analyses that is, the Ordinary Least Square as well as the Cochrane-Orcutt iterative approaches to find out the correlation between market size and the growth of the economy. Using a time series data from the year 1992 to 2007, it was revealed a mixed for several indicators of stock market size. The discoveries indicated that market capitalization (represented with market value total of securities listed) have no positive contribution to the development of Nigerian economy. This, according to the study, showed that there is a negative value of market capitalization both in the least squares and Cochrane-orcutt methods. They posited that the findings explained that total equity market value in the capital market is comparatively lesser to the contribution to gross domestic in a positive way. On the other hand, securities listed number represented with total of listed securities transacted number on the flood of the stock exchange correlated in a positive manner to gross domestic product using both the ordinary least squares as well as the Cochrane-orcutt methods. By implication, according to the study, the securities listed though few are being transacted thereby leading to the Nigerian economy's development contribution. Ujunwa and Salami (2010), adopting an Ordinary Last Squares Regression test with time series data for twenty one year's period of 1986 to 2006, showed a positive and insignificant relationship between the size of stock and the economic growth in Nigeria.

A good number of empirical literatures posit negative relationship for Stock market-growth nexus. Nyong (1997) was one of the earliest proponents of this argument. By using various pointers of the development of stock market, which include as market capitalization to GDP ratio, transaction total value to GDP ratio, transaction value to GDP, he found that the development of capital market has a negative relationship with the growth of the economy. Ohiomu and Enabulu (2011) employed the ordinary least squares regression technique with data covering the period from 1989-2008 and found that growth in market capitalization shows a relationship that is positive in nature with weak relationship both in variable estimates as well as statistical contribution. Alajekwu and Achugbu (2012) used a shorter time period of fifteen years (1994 - 2008) with the OLS method. The study revealed that stock market capitalization ratio measured for the size of the market is negatively correlated with the growth of the economy. Employing Johansen co-integration as well as Granger causality tests techniques, Kolapo and Adaramola (2012) worked on the impact of the capital market on the growth of Nigeria economy from 1990 to 2010 and noted that stock market performance is a driving force for economic growth as well as development. Economic growth, the dependent variable for the study was represented by the GDP. Variables of the capital market represented the independent variables were total new issues (TNI), market capitalization (MCAP), transactions value (VLT), Listed Equities Total and Government Stocks (LEGS). Findings of the study confirmed that the Nigerian capital market is cointegrated with the growth of the economy signifying a long-run relationship existing between the two. Furthermore, from the causality tests, while there is a unidirectional causality running from Market capitalisation to gross

domestic product, the value of transaction and gross domestic product maintained bidirectional causational relationship. In this regard, more authors focused on the causal relationship between stock market development and the growth of the economy.

Adamu and Sanni (2005) used Granger causality and regression tests analyses to evaluate how the role of stock market has contributed to the growth of the Nigeria economy. Their study revealed a one-way (unidirectional) causality relationship between growth of gross domestic product and market capitalization among other findings. Recommendations by these authors were that the development of the capital market needs to be encouraged given that it's positive relationship with economic growth.Riman, *et al.* (2008) indicated that the causality direction runs from market capitalization to the growth of the economy. The unilateral causal relationship is attributable to the low level of income within the economy, low savings culture, and inadequate number of listed companies on the market floor. These findings support the view that developing economies find unidirectional causality (where it exits).On the contrary, Nurudeen (2009) posited that causality relationship does not exist between the size of stock market and the growth of the economy (in terms of market capitalization and all share indexes). Harris (1997) established firm evidence and positive relationship existing between stock market and increased local investment.

## 2.3.2 Relationship between Stock Market Liquidity and Economic Growth

Liquidity of stock market concepts have been adopted to show in what way the securities market development transmits to the growth of the economy. It has been contended that stock market assures firm's liquidity by enabling firms to quickly obtain the much desired investment capital. This goes to help facilitate the allocation of capital, investment and growth. Also, it equally helps in mitigating risks inherent in investment owing to the ease of trading equities and plays a central part in assisting to decide economic activities in most nations (Yartey and Adjasi, 2007). Liquidity is delivered by the stock market by letting firms to raise capitals through securities' sales. The enabling environment created by the stock market presupposes that funds acquisition is done with comfort and speed. Furthermore, the catalytic role of the stock market implies that it is capable of influencing investment and the growth of the economy at large. It is asserted that stock markets with larger size lower savings mobilization cost and facilitate investments while allocating investments in the most productive ways.

The empirical evidence by Levine (1997) lends credence to the conviction that stock market liquidity with greater size galvanizes the growth of the economy. This supported Bencivenga, Smith and Starr (1996) assertion that, without a capital market liquidity industrial revolution would not have taken place being that investors would be unenthusiastic to invest in huge, long term investment projects that featured industrial revolution at the early phase. In Nigeria, liquidity - growth empirical works are correctly used with divergent views. Nzotta and Okereke (2009) proxied the liquidity of stock market by shares value traded at the floor of stock exchange as gross domestic product share claimed a connection between the liquidity of stock market and the growth of the economy; but concisely affirmed that liquidity differs with the comfort of trading. Ohiomu and Enabulu (2011) conducted a study with the assistance of OLS regression using data from the period of 1989 - 2008 showed a positive relationship in the sense that an increase in the ratio of value traded amounted to 1.85 percent increases in gross domestic product growth rate was discovered. Current empirical researches on liquidity - growth link that supported the positive influence disagreement include Josiah, et al. (2012), which carried study to establish the contribution of capita market to Nigeria economic development from 1992 – 2007 using OLS and cochrane-orcutt iterative techniques. Transaction value and deals number was used as proxy for the liquidity of stock market, the findings of the study revealed that the two independent variables have a positive correlation with GDP both in the least square and the Cochrane-orcutt methods. The implication of the results was that the transactions volume in the capital market has positive contribution to the Nigerian economic development while capital market deals have no positive influence on the gross domestic product.

Findings from a study conducted by Ujunwa and Salami (2010) led them to reject the argument that the liquidity of stock market has influenced the growth of the economy positively. They employed the Ordinary Least Square regression on data that is time series in nature for twenty one year period (1986 to 2006) and found that the value traded ratio measured by market liquidity was negatively connected to the growth of the economy. This result was explained as caused by the greater degree of the volatility of price on stock markets, which reduced price efficiency signals in apportioning investment resource in Nigeria. The findings were that the regressions coefficient for the turnover ratio was positive in explaining the changes in the growth of the economy. They posited it to conform to the claim that developing stock markets allows investors to sell their shares easily, thus making shares a reasonably attractive for investments.

A recent study by Alajekwu and Achugbu (2012) supported a negative relation for liquidity and growth nexus argument. A fifteen year data of time series from 1994 to 2008 was adopted for the study to evaluate the link between stock market liquidity (as proxied by the value traded ratio and turnover ratio) and the growth of the economy. OLS approach was employed. It was shown that while the ratios of value traded had negative association with the growth of the economy, there was a strong positive correlation between turnover ratio and the growth of the economy. The implication of the result affirms liquidity's tendency to boost the growth of the economy in one hand, while the capitalization of market in Nigeria impacts the liquidity of market on the other hand. Other studies have considered the causal relations linking stock market

liquidity and the growth of the economy. There was no agreement on the nature and causality direction existing between stock market liquidity in Nigeria. For instance, Nurudeen (2009) posited a unidirectional causality relationship between the size of stock market and the growth of the economy, running from GDP to stock market turnover. Ogunmuyiwa (2010) probed on the relationship in addition to the avenue through which the sentiment of investors and liquidity affect growth. The discovery of the study indicated that both the sentiment of the investors and the liquidity of stock market granger-cause the growth of economy in Nigeria. On a similar note Adam and Sanni (2005) equally evaluated the function of stock market in the growth of Nigeria economy. They employed granger — causality test as well as regression analyses and found a two—way causality relationship between the growth of gross domestic product and turnover ratios. Consequently, he advocated for the government to promote capital market development given that its relationship with the growth of the economy is positive.

## 2.3.3 Relationship between Stock Market Performance and Economic Growth

A plethora of studies show unambiguously that stock markets performance has a strong and positive correlation with economic development level as well as the accumulation of capital. This result is found to be firm, undisputable, seems to be true across time and in many economies. Certainly, empirical evidences approve that as nations develop equity markets are likely to enlarge both in listed companies' number and in capitalization of market (Levine and Zervos, 1996, 1998; Demirguc-Kunt and Maksimovic, 1996; Atje and Jovanovich, 1993; Demirgüc-Kunt and Levine 1996a, 1996b; Korajczyk, 1996). Their results, however, failed to recommend a direct as well as a monotonic expansion of equity markets share in the financial structure. Common sense dictates that, the expansion of equity markets is go before and complemented by the enlargement of the general financial structure. A closer observation and one will notice that the coevolution of financial indicators is intricate and multidimensional phenomenon, and not just a simple and straightforward fact as one might have thought. Without a doubt, the expansions of markets for trading stocks usually follows commercial banks development and other financial intermediaries and in various circumstances, tend to continue due to the expansion of equity markets. This procedure seems to produce a baffling situation depicting equity market expansion in tandem with the financial system which is continually controlled by banks as well as the financial products of the banks. Despite the fact that the evidence frequently seems to be puzzling, and most often hard to understand, a broad-spectrum of evidences on the relationship existing between the financial system development and the growth of the economy as ascertained from the empirical literatures (King and Levine 1993a, 1993b; Roubini and Sala-i- Martin, 1991; De Gregorio and Guidotti, 1995; Levine and Renelt, 1992). These facts could be summarized as follows: a) Financial Markets are usually very tinny and incredibly fundamental during the early phases of economic development. Throughout these phases, financial markets are controlled by banks as well as other related types of intermediaries in the financial sector. Stock markets are wholly absent or of negligible sizes. b) As time goes on, capital accumulates, and concurrently, intermediaries in the financial sytem develop, increase in the number of financial instruments, contraction in sophistication level as well as financial complexity followed by increase in size of the resources flow and funds accumulating in the financial market. At this juncture, stock market starts developing both in listed firms number and capitalization of market. c) When an economy grows continually, development of equity markets intensifies, banks and other financial intermediaries also develop. d) Stock Markets seem to develop in a no monotonic way. For instance, in nations where stock markets are comparatively small, hence, accumulation of capital appears to be proceeded by a comparative increase in the share of banks in the financial system.

On the other hand, in countries where stock markets have already reached a reasonable size, additional market development leads to an increase in the share of the equity markets. In this perspective, evidences show that, firstly, the equity to debt ratio decreases and increases further only with stock market development. Therefore, equity markets coevolution and accumulation of capital is only one phase of the overall inter-relationship between the growth of the economy and the financial system expansion. Based on the influential contributions by McKinnon (1973) and Goldsmith (1969), many Economists have given ample consideration to the study of the role that the financial intermediation played in the process of allocation of real resource and accumulation of capital. It is just of recent that economists began to focus their concentration specifically on stock markets' roles in the economic development process. Fascinatingly, these contemporary researches have not only showed unique theoretical and empirical characteristics of the medium of relations between real and financial indicators, they have coincidentally given an insight on individual company's optimal financial choice in association with the development of the economy. It becomes necessary at this stage, to explain stock markets' performance, and also identify a measure of the performance. In assessing stock market expansion the primary measure is to examine at variations in its dimension. A common measure of the size of stock market used in literature is market total shares value at a particular point in time. This is referred to as the capitalization of market or the mean of this value over a period. Okodua and Ewetan (2013) examined the relationship between stock market performance and sustainable economic growth in Nigeria. They adopted Auto-regressive Distributed Lag estimation approach. They concluded from their findings that the general output in the economy of Nigeria is less consequential to variations in the capitalization of stock market and mean dividend yield.

# 2.3.4 Interaction of Monetary Policy and Stock Market Performance in Promoting Economic Growth.

Stock markets contribute to national savings mobilization by increasing and facilitating financial instruments offered to investors for portfolios diversification. Therefore, they offer a significant investment capital source at respectively little cost. Mckinnon (1973) suggested that the development of stock market should have importance even over opened bank lending in the initial years of conversion to the financial market that is capitalistic in nature where the previous order has generated fat bad debts challenges for banks. According to them, in the perspective of monetary growth, a well-developed stock market gives a channel for the monetary policy exercise in a liquid market through the issue and re-purchase of government securities. Moreover, active and well-developed stock markets change the demand pattern for money while the stock markets that are booming create liquidity thereby spurring the growth of the economy. Evidences from the documents show that measures of economic performance as well as inflation rate are negatively correlated once the inflation rate is too high. Boyd and Smith (1998) studied empirically the relationship existing between long-run inflation rate and the performance of economic financial system.

The study discovery reveals that economies with inflation rate below a critical level (i.e mean inflation rate below fifteen percentage) had a correlation with strong negativity between inflation rate and financial markets performance but a rise in inflation rate in high inflation economies (i.e mean inflation rate above fifteen percentage) can have an insignificant effect on the development of stock market indicating insignificant relationship between the development of stock market and inflation rate. Garcia and Liu (1999) discovered a negative and insignificant influence of inflation on market capitalization and disputed that macro-economic stability does not have any influence on the capitalization of market. In Ghana, Osei (2005) investigated the relationships between macro-economic variables and stock market. The study established that there exist a cointegration between stock market of Ghana and macro-economic variables. Also, the outputs of the short-run dynamic test analysis and the confirmation of cointegration result implied that both short-run and long-run relationship existed between the stock market index and the macro-economic variables. Concerning the Efficient Market Hypothesis (EMH), the research established that the stock market of Ghana is inefficient in the aspect of information, particularly in the areas of inflation, treasury bill rate as well as world gold price.

# 2.3.5 Interaction of Trade Openness and the Performance of Stock Market in Promoting Economic Growth

Studies have shown that the diversification of risk is connected to liquidity pertaining to the functions on the growth of the economy. Stock markets have been shown to influence the growth of the economy when they are globally integrated. As a result of this, Nyong (1997) cautioned that the integration of the stock market internationally must be dynamically and persistently followed. This will enable a greater sharing of risk economically because higher return projects seemed to be relatively risky. Furthermore, when stock markets facilitate the diversification of risk, they promote a move to higher return projects with the resulting effect of boosting the economy. This would invariably lead to growth by moving the savings of the society to higher return investment projects. Faster growth of the economy may result also from acquiring information about companies. It is most frequently rewarding investors who are capable of trading on the information, obtainable through effective monitoring of companies for profitability. Accordingly, efficient allocation of resources and the promotion of the growth of economy are improved through better information. Also supporting the stock exchange importance to growth of the economy by the diversification of risk opportunities globally, Devereux and Smith (1994) disputed rather reasonably that prospects for reducing risk via international diversification make high-risk high-return national and global investment projects viable, as a result, assign savings between investments' opportunities more resourcefully. Nonetheless, this appears to be a weak argument because it has not been believably proven.

Also, in 2009, Nurudeen investigated whether the development of stock market stimulates the growth of the economy in Nigeria. He adopted an error correction method and discovered that there no causality relationship between openness of the stock market and the growth of the economy. On their part Alfaroa, *et al.* (2004) found strong links among FDI, financial markets and the growth of the economy in their cross sectional study of 71 economies from 1975-1975. The result equally demonstrated that only FDI plays a robust role in influencing the growth of the economy. The study posits that economies with well-developed financial markets gain from FDI significantly. Javed, *et al.* (2012) employed Chow test and Ordinary Least Squares methods on time-series data from 1973-2010 studied the influence of exports total to gross domestic ratio, terms of trade, import to gross domestic product, investment to gross domestic product ratio, trade openness as well as inflation on the economy of Paskitan. Findings from the regression test analysis demonstrated a positive statistical significant influence of the explanatory variables on Pakistani economy. Furthermore, they discovered from their study that a boost in the raw materials import spurs employment, production and Pakistani's output.

Ulasan (2012) carried out a cross-country analysis of the relationship existing between long run growth of the economy and trade openness within the period of 1960 to 2000. One of the rationales of the study was to improve on previous studies with scope mostly ranging from 1970-1990. Findings showed a positive statistical significant correlational relationship between trade openness and the growth of economy at long run. Saibu (2012) in an attempt to investigate the direct and shared influences of the inflow of capital, openness of trade and the growth of the economy in Nigeria used data from 1960 to 2011 and also making use of composite indicator which was obtainable from Principal Component Analysis

(PCA) in the Auto-regressive Distributed Lag (ARDL) bound test model. The study established a statistical significant influence of inflow of capital and trade on the growth of the economy. Furthermore, the study added credence on the modernization hypothesis by providing new evidence indicating that inflow of capital and policy of trade are balancing and do promote growth in developing countries such as Nigeria. In addition, policies on the liberalization of trade have the propensity to improve effectiveness and efficiency of inflow of capital and mutually stimulate higher growth of the economy in Nigeria. Emeka, *et al.* (2012) carried out a study to evaluate the trade role on the economy of Nigeria for the period from 1970 - 2008. To meet the aim of the study, they applied both bivariate and multivariate models, to estimate the relationships existing between the selected macro-economic variables. It was evident from the study that FDI inflows and exports have positive significant impact on the growth of Nigeria economy.

Adelowokan and Maku (2013) investigated the influence of financial investment openness and trade on economic growth between the periods of 1960 – 2011 in Nigeria. The dynamic regression model analysis estimates showed that openness of trade has a positive influence on the growth of the economy while foreign investment exerts a negative effect. Equally, partial adjustment term revealed that fiscal deficit, inflation and lending rate were discovered to promote growth. They concluded from the evidence that long run relationship exists between openness of trade, foreign investment and the growth of the economy in Nigeria. Eleanya, *et al.* (2013) empirically investigated and compared the causality relationship existing between openness of trade and the growth of the economy in Nigeria in the pre-SAP and post-SAP periods (1970Q1 to 1985Q4 and 1986 to 2011 respectively). The study employed Augmented-Dickey Fuller and Phillips-Perron tests for stationality and Engle-Granger method for co-integration. The findings of the co-integration test affirm the presence of a long run relationship between economic growth and the various explanatory variables employed in the study namely: openness of trade, government expenditure and investment respectively. The Engle-Granger causality technique was also employed to examine the causality direction. The results showed a uni-directional causality relationship driving from growth of the economy to openness of trade with no reaction in the pre-SAP period of growth-led trade, while there is existence of a bi-directional causality relationship going from the growth of the economy to openness of trade with a feedback effect in the post-SAP period of growth-led trade as well as trade-led growth respectively.

# 2.3.6 The Relationship between macroeconomic indicators and stock market performance

There has been a contentious debate in finance and economic cycles on the subject of causality relationship between variables of macroeconomic and returns of share over the years. The controversies stalk from conflicting findings by various studies. Variables of macroeconomic are theoretically expected to influence equities' returns. However, the detected pattern over the years from several studies in diverse capital markets have shown a varying influence of variables of macroeconomic on share returns in those markets both (in signs and magnitude). This notwithstanding, during these years, empirical discoveries by various studies suggested that a significant relationship exist between shocks from external source and returns of stock in most economies under studied. Soyode (1993) for instance conducted a study to observe the relationship existing between prices of stock and variables of macroeconomic like inflation, exchange and interest rates. He found a cointegration between variables of macroeconomic and prices of stock and invariably stock returns. Amadi, *et al.* (2000) in a similar vein, used multiple regression to evaluate the relationship between inflation, interest, exchange rates, money supply and prices of stock. Findings of their study were in line with the theoretical statement and empirical discoveries in some nations. This notwithstanding, the association existing between prices of stock and inflation disagreed with some other studies conducted beyond Nigeria.

Nwokoma (2002) established a link between stock market and some of the indicators of macroeconomic. Of all the variables considered in the study, it was discovered that industrial production, interest rates level, denoted by the three months deposit rate of commercial banks had a long run relationship with the stock market. It was equally discovered that the market in Nigeria seems to respond to its previous prices more than fluctuations in the variables of macroeconomic in the short-run. Ologunde, *et al.* (2006) conducted a study to evaluate the connection existing between capitalization rate of stock market and interest rate. Evidence from the analysis indicated that the prevalent interest rate exercises positive impact on the capitalization rate of stock market. Furthermore, their result showed that on the contrary government development stock rate imposes negative impact on the capitalization rate of stock market while prevalent interest rate put forth negative impact on government development stock rate. Maku and Atanda (2009) investigated the shocks of the variables of macroeconomic in long run and short run influence on capital market in Nigeria within 1984 - 2007. In the study, they investigated the variables of the properties of the time series using the approaches of Augmented Dickey-Fuller (ADF) and Error Correction Model (ECM). Empirical findings revealed that all share index of the NSE responded more to variations in inflation, exchange rates, real output and money supply. Therefore, all variables that were incorporated served as proxies for other indicators of macroeconomic and external shock do have both short run and long run concurrent significant influence on the capital market in Nigeria.

#### 3. METHODOLOGY

### 3.1 Research Design

Ex post facto research design was employed in this study. This is because this study is carried out after the proceedings have taken place and data are before now in existence (Ndiyo, 2005). The relationship existing between the performance of stock market and the growth of the economy in Nigeria for thirty one years (1985-2015) is examined in this study.

#### 3.2 Theoretical Specification of Model

The theoretical models specified in this study originated from the work of Patrick (1966) and supported by Arestis (2005) in the theory of financial liberalization. The theory focused on the association existing between financial growth and development of the economy. This theory proposed two theoretical approaches namely; demand-following and supply leading approaches. The demand - following technique proposes that as economies begin to develop, development of financial institutions takes place, whereas supply-leading technique states that the prevalent increase of financial institutions pilots growth of an economy. The models below show that the activities in the stock market and financial deepening indicators pilot economic growth. The theoretical models are specified below:

```
\begin{aligned} &GDPr = f(MCR, NSL) & (Equation 3.1) \\ &GDPr = f(TOR, ASI) & (Equation 3.2) \\ &M_2R = f(MPR, ASI) & (Equation 3.3) \\ &CPSR = f(TOR, ASI) & (Equation 3.4) \end{aligned}
```

#### Where;

GDPr = Economic growth rate as proxied by Gross Domestic Product growth rate

MCR = Market Capitalization Ratio (share value/GDP)

TOR = Turnover ratio (share value/market capitalization)

NSL = Number of securities listed on the Nigerian Stock Exchange

ASI = All share index growth

MPR = Monetary Policy Rate

 $M_2R = Money Supply ratio (M_2/GDP)$ 

CPSR = Credit to Private Sector ratio (CPS/GDP)

#### 3.3 Empirical Specification of Model

The empirical models are hereby specified and linearized in the theoretical models as:

$GDPr = \beta_0 + \beta_1 MCR + \beta_2 NSL + u_1$	(Equation 3.5)
$GDPr = \beta_0 + \beta_1 TOR + \beta_2 ASI + u_2$	(Equation 3.6)
$M_2R = \beta_0 + \beta_1MPR + \beta_2ASI + u_3$	(Equation 3.7)
$CPSR = \beta_0 + \beta_1 TOR + \beta_2 ASI + u_4$	(Equation 3.8)

#### Where:

u₁− u₄ are the error terms.

 $\beta_{0}$  = a regression intercept or constant

 $\beta_1 - \beta_2$  the independent variables' coefficients or parameters

The apriori expectation offers predictable signs and values significance of the parameters coefficient under study on the part of the empirical proof and assertion of theoretical assumptions. The combined variables in the modified model are expected to have positive (+) or negative (-) signs, which means a positive or negative relationship to overall economic growth rate in Nigeria.

#### 3.4 Sampling Technique

The researcher adopted a purposive sampling technique. Under this technique, related aggregate data of the listed companies were extracted from were sourced from the Statistical Bulletin of Securities and Exchange Commission and the Statistical Bulletin of Central Bank of Nigeria. According to SEC (2018), there are two hundred and fifty three companies listed on the floor of Nigeria Stock Exchange. The sampling data are related to the research. The data included GDP, money supply to GDP, Credit to private sector ratio, ratio of market capitalization, turnover ratio, monetary policy rate, NSE all share index growth rate and among others. The data collected were then subjected to several econometric tests using statistical E-views software. The research covers the activities of all quoted firms on the Nigerian Stock Exchange and the growth of the economy as proxied by Gross Domestic Product (GDP) and financial sector deepening.

### 3.5 Source and Nature of Data

Data were gotten from secondary sources and used in the study. For the purpose of this research, a literature survey of published articles and other publications on the topic under study were explored using specific instruments. To attain the objectives of the study, annual data of time series were used. The data were sourced from the Statistical Bulletin of

Securities and Exchange Commission and the Statistical Bulletin of Central Bank of Nigeria; the data included GDP, money supply to GDP, Credit to private sector, ratio of market capitalization, turnover ratio, monetary policy rate, NSE all share index and among others. The data collected were then subjected to several econometric tests using statistical E-views software. The research covers the activities of all quoted firms on the Nigerian Stock Exchange and the growth of the economy as proxied by Gross Domestic Product (GDP) and financial sector deepening. The study area is Nigerian stock market. The aggregate data as contained in the Central Bank of Nigeria (CBN) Statistical Bulletin and the SEC Statistical Bulletin which constitute the population of the study.

# 3.6 Methods of Data Analysis

The time series data would be analyzed and evaluated by appropriate techniques. There are diverse methods for analyzing the collected data for a research. The statistical analyses used in this study consist of cointegration test analysis, normality test and descriptive statistics test as well as regression technique of analysis through the use of Eviews 9.5 Student Lite version.

## 3.7 Cointegration Test Analysis

By confirming the stationarity or unit root of the variables, the researcher advanced to investigate if at all there is the existence or non-existence of cointegration among the variables used. The presence of cointegration relationship indicates that the variables share a mutual trend and long run relationship. The researcher began the cointegration analysis by adopting the Johansen and Juselius (1990) multi-variate cointegration test approach. Johansen and Juselius (1990) suggested two tests statistics analyses to decide the number of co-integrating vectors or the rank of  $\Pi$ , viz; the trace ( $\lambda$ -trace) and the maximum eigen-value ( $\lambda$ -max) statistics.

# 3.8 Normality Test and Descriptive Statistics Test

Usually, in order to ascertain if a data set is well modeled by a normal distribution or not, a Normality test is conducted. It is also used to calculate how probable an original random variable is to be distributed normally. Generally, sample data sets are often skewed to the right for diverse reasons, and if we cannot normalize the data we should not compare means more on normalizing data sets later. Descriptive statistics tests were carried out in this study via Eviews software, so as to give more insight about the variables of the study analyzed. The implication is that it deals with the presentation of numerical data/facts in tabular form. Descriptive statistics is obtainable from statistical analysis before another test performed employing multiple regression technique of analysis. Consequently, descriptive analysis was employed to generate mean, scores range of (Minimum and Maximum), skewness/kurtosis and standard deviation for each study variable.

# 3.9 Ordinary Least Squares (OLS) Regression Test Analysis

The model of multiple linear regression is an extension of the model of simple linear regression that combines two/more explanatory or independent variables in a prediction equation for a response or dependent variable. Multiple regression observes the relationship existing between a particular outcome measure and several predictors or independent variables. The multiple regression analysis approach is an analysis of link that concurrently examines the influences of two/more independent variables on a ration scaled dependent variable or single interval scaled. In this study multiple regression analysis was conducted to examine the relationship existing between each of the independent variables and dependent variables. Generally, regression analysis is used during the investigation of relationships between dependent and independent variables. Regression is also employed to predict a variable value based on the value of another variable. In this study, the data to be gathered satisfies the conditions needed to apply the regression analysis for this research work. The data to be gathered was analyzed through regression analysis for better understanding and drawing up of valid conclusion. More specifically, in this study regression analysis helped in understanding how changes in a particular explanatory variable affect the explained (dependent) variable when other explanatory variables in the model are held constant. Regression analysis also helped in understanding which of the explanatory variables is related to the dependent variable, and equally explored the forms of these relationships. However, the researcher rejects H<sub>o</sub> when the calculated p-value is less than 5% (0.05) level of significance.

# 4. DATA PRESENTATION, ANALYSIS AND FINDINGS

# 4.1 Data Presentation

Table 1. Relationship of GDPr, M2R, CPSR, MCR, NSL, TOR, ASI, MPR in Nigeria from 1985 to 2018.

Table 1.	Relationshi	p of GDPr, M2.	R, CPSR, MCR,	NSL, TOR, A	ASI, MPR it		1985 to 201	8.
YEAR	GDPr (%)	M2R	CPSR	MCR (%)	NSL	TOR (%)	ASI (%)	MPR (%)
		(M2/GDP)	(CPS/GDP)					
		(%)	(%)					
1985	4.29	11.6	6.8	4.90	220	4.80	28.67	10.00
1986	5.29	11.8	7.5	5.05	240	7.32	16.54	10.00
1987	23.22	11.1	8.5	4.25	244	4.66	22.37	12.75
1988	28.42	12.0	8.5	3.80	253	8.50	39.26	12.75
1989	30.86	11.0	7.3	3.35	267	4.77	57.95	18.50
1990	19.2	10.6	6.7	4.96	295	1.38	52.39	18.50
1991	19.29	12.7	6.9	4.23	239	1.05	41.46	15.50
1992	52.64	12.2	6.4	3.56	251	1.58	39.38	17.50
1993	38.39	13.1	10.1	4.36	272	1.69	42.83	26.00
1994	40.01	13.1	8.1	4.74	276	1.49	130.94	13.50
1995	64.24	10.0	6.2	6.20	276	1.02	37.31	13.50
1996	30.53	9.2	6.3	7.09	276	2.44	7.89	13.50
1997	8.8	10.1	7.7	6.73	264	3.66	11.92	13.50
1998	11.61	10.6	7.7	6.58	264	5.17	7.16	13.50
1999	15.65	11.9	8.1	6.41	268	4.69	54.01	18.00
2000	29.96	12.7	7.7	7.03	260	5.96	35.16	14.00
2001	17.93	15.6	9.4	9.61	261	8.71	10.71	20.50
2002	39.32	13.3	8.2	9.81	258	7.77	65.84	16.50
2003	17.38	14.7	8.2	13.71	265	8.86	18.46	15.00
2004	30.22	12.3	8.2	18.51	277	10.69	1.01	15.00
2005	28.57	11.8	8.3	19.85	288	9.07	37.80	13.00
2006	28.7	13.3	8.0	27.58	288	9.18	74.73	10.00
2007	15.12	15.5	11.2	63.81	310	8.16	45.77	9.50
2008	18.68	20.5	17.7	39.36	301	17.56	33.78	9.75
2009	13.09	21.3	20.7	28.36	265	9.75	18.93	6.00
2010	23.32	20.2	18.6	18.30	264	8.07	16.31	6.25
2011	15.32	19.3	16.9	16.24	250	6.22	35.45	12.00
2012	13.87	19.4	20.4	20.79	256	5.47	47.19	12.00
2013	11.68	18.9	19.7	23.78	254	12.32	16.14	12.00
2014	11.18	19.9	19.2	18.95	253	7.91	17.36	13.00
2015	5.73	20.1	19.8	25.00	253	11.12	6.17	11.00
2016	7.8	21.3	20.8	26.23	253	12.14	28.67	14.00
2017	3.89	22.41	20.00	25.87	253	13.65	25.93	14.00
2018	2.84	21.21	19.58	26.98	253	14.01	29.98	14.00

Sources: Central Bank of Nigeria (CBN) Statistical Bulletin (2018) and SEC (2018)

# 4.2 Data Analysis

## 4.3 Cointegration Test Analysis

**Table 2.** Johansen Cointegration Test Results

Date: 11/06/19 Time: 16:12 Sample (adjusted): 3 34

Included observations: 32 after adjustments

Trend assumption: Linear deterministic trend (restricted) Series: GDPR M2R CPSR MCR NSL TOR ASI MPR

Lags interval (in first differences): 1 to 1

#### Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None * At most 1 * At most 2 * At most 3 * At most 4 * At most 5 * At most 6 At most 7	0.897084	284.6922	187.4701	0.0000
	0.844474	211.9292	150.5585	0.0000
	0.719267	152.3790	117.7082	0.0001
	0.700268	111.7278	88.80380	0.0004
	0.600158	73.17199	63.87610	0.0067
	0.508157	43.83801	42.91525	0.0403
	0.341231	21.13098	25.87211	0.1740
	0.215697	7.774721	12.51798	0.2706

Trace test indicates 6 cointegrating eqn(s) at the 0.05 level

#### Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None * At most 1 * At most 2 At most 3 * At most 4 At most 5 At most 6	0.897084 0.844474 0.719267 0.700268 0.600158 0.508157 0.341231	72.76300 59.55018 40.65123 38.55578 29.33398 22.70703 13.35626	56.70519 50.59985 44.49720 38.33101 32.11832 25.82321 19.38704	0.0007 0.0047 0.1236 0.0471 0.1054 0.1224 0.3001
At most 7	0.215697	7.774721	12.51798	0.2706

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

Source: Researcher's computation

The researcher seeks to determine whether there exists long-run equilibrium relationship among the variables in the study. In doing so, the Johansen cointegration test was used. This test identifies 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. From Table 4.2 the trace statistics of six variables clearly exceed the critical values at 5 percent confidence interval. These variables are GDPr, M<sub>2</sub>R, CPSR, MCR, NSL, and TOR while ASI and MPR trace statistics do not exceed the critical values at 5%. The implication of this result is that there is a long-run equilibrium relationship between GDPr, M<sub>2</sub>R, CPSR, MCR, NSL and TOR while ASI and MPR did not have a long-run equilibrium relationship. Thus, we are not accepting the null hypothesis of no cointegrating relationships among the variables.

<sup>\*</sup> denotes rejection of the hypothesis at the 0.05 level

<sup>\*\*</sup>MacKinnon-Haug-Michelis (1999) p-values

<sup>\*</sup> denotes rejection of the hypothesis at the 0.05 level

<sup>\*\*</sup>MacKinnon-Haug-Michelis (1999) p-values

## 4.3.1 Normality Test and Descriptive Statistics Test

 Table 3.
 Normality Test and Descriptive Statistics Test Results

	GDPR	M2R	CPSR	MCR	NSL	TOR	ASI	MPR
Mean	21.38353	14.84471	11.62882	15.17588	263.7353	7.083529	33.98441	13.66176
Median	18.30500	13.10000	8.250000	9.710000	262.5000	7.545000	31.88000	13.50000
Maximum	64.24000	22.41000	20.80000	63.81000	310.0000	17.56000	130.9400	26.00000
Minimum	2.840000	9.200000	6.200000	3.350000	220.0000	1.020000	1.010000	6.000000
Std. Dev.	14.16325	4.174389	5.581007	13.01740	18.37374	4.155436	24.71929	3.890004
Skewness	1.045063	0.513129	0.707953	1.710255	0.420915	0.373044	1.825355	0.745069
Kurtosis	4.030489	1.693539	1.667228	6.773137	3.539382	2.657790	8.078799	4.734474
Jarque-Bera	7.693253	3.910061	5.356514	36.74331	1.416114	0.954487	55.42267	7.407620
Probability	0.021352	0.141560	0.068683	0.000000	0.492600	0.620492	0.000000	0.024630
Sum	727.0400	504.7200	395.3800	515.9800	8967.000	240.8400	1155.470	464.5000
Sum Sq. Dev.	6619.719	575.0422	1027.872	5591.937	11140.62	569.8324	20164.43	499.3603
Observations	34	34	34	34	34	34	34	34

Source: Researcher's computation

As stated earlier, normality tests are used to determine whether a data set is well-modeled by a normal distribution or not, or to compute how likely an underlying random variable is to be normally distributed. Tables 4.3 showed that the reported probabilities are less than Jarque-Bera statistics, this leads to the rejection of the null hypothesis of a normal distribution at the 5% significance level. We conclude that the data set in the variables are normally distributed. Furthermore, the descriptive statistics results in table 4.3 revealed that the standard deviation values of the variables were less than the mean scores. Also, the minimum values were less than the maximum values of the variables. The implication is that there is a minimal level of disparity in the growth rates of the variables used in the study from 1985 to 2018.

## 4.4 Presentation and Analysis of Empirical Results

An Ordinary Least Squares multiple regression analysis is adopted for the analysis of empirical data and the results are used to test the hypotheses.

## 4.4.1 Testing of Hypothesis One

 $H_0$ : There is no significant relationship between market capitalization ratio, total number of listed securities and economic growth rate in Nigeria. Using the empirical model:  $GDPr = \beta_0 + \beta_1 MCR + \beta_2 NSL + u_1$ , the empirical results from Table 4.4 are presented below:

**Table 4.** Ordinary Least Squares (OLS) Regression Analysis Results for Hypothesis One

Dependent Variable: GDPR Method: Least Squares Date: 11/06/19 Time: 15:50

Sample: 1 34

Included observations: 34

C	88.9573897	30.93346	2.875766	0.0072
MCR	0.68131101	0.171239	3.978723	0.0004
NSL	0.45758158	0.121319	3.771728	0.0007
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.398473 0.359665 11.33356 3981.938 -129.2177 10.26776 0.000379	Mean dependent var S.D. dependent var Akaike info criterion Schwarz criterion Hannan-Quinn criter. Durbin-Watson stat		21.38353 14.16325 7.777511 7.912190 7.823440 1.665997

Source: Researcher's computation

Interpretation: The test of the null hypothesis ( $H_0$ ) against the alternate hypothesis ( $H_1$ ) is that  $H_0$  is rejected if the calculated p-value is less than the 0.05(5%) level of significance. Therefore, since the calculated p-value of 0.00 is less than 0.05, we reject the null hypothesis and accept the alternative hypothesis, which states that there is a significant relationship between market capitalization ratio, total number of listed securities and economic growth rate in Nigeria.

# 4.4.2 Testing of Hypothesis Two

Ho:There is no significant relationship between turnover ratio, all share index growth and economic growth rate in Nigeria. Using the empirical model: GDPr =  $\beta$ 0 +  $\beta$ 1TOR +  $\beta$ 2ASI + u2, the empirical results from Table 4.5 are presented below:

**Table 5.** Ordinary Least Squares (OLS) Regression Analysis Results for Hypothesis Two

Dependent Variable: GDPR Method: Least Squares Date: 11/06/19 Time: 15:57

Sample: 134

Included observations: 34

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C TOR ASI	25.85557 1.403429 0.160932	5.903907 0.531405 0.089332	4.379400 2.640980 1.801514	0.0001 0.0128 0.0814
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.321388 0.277606 12.03787 4492.223 -131.2675 7.340726 0.002455	Mean depend S.D. depende Akaike info cri Schwarz crite Hannan-Quin Durbin-Wats c	ent var iterion rion n criter.	21.38353 14.16325 7.898090 8.032769 7.944020 1.578297

Source: Researcher's computation

InterpretationThe test of the null hypothesis  $(H_0)$  against the alternate hypothesis  $(H_1)$  is that  $H_0$  is rejected if the calculated p-value is less than the 0.05(5%) level of significance. Therefore, since the calculated p-values of 0.00 and 0.01 were less than 0.05, we state that there is a significant relationship between turnover ratio and economic growth rate in Nigeria. However, All Share Index has insignificant influence on economic growth rate in Nigeria.

#### 4.4.3 Testing of Hypothesis Three

H<sub>0</sub>: There is no significant relationship between monetary policy rate and the financial deepening growth in Nigeria.

Using the empirical model:  $M_2R = \beta_0 + \beta_1MPR + \beta_2ASI + u_3$ , the empirical results from Table 4.6 are presented below:

**Table 6.** Ordinary Least Squares (OLS) Regression Analysis Results for Hypothesis Three

Dependent Variable: M2R Method: Least Squares Date: 11/06/19 Time: 16:05

Sample: 1 34

Included observations: 34

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C MPR ASI	20.63105 0.374026 0.019905	2.584918 0.180238 0.028363	7.981317 2.075182 0.701809	0.0000 0.0464 0.4880
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.148793 0.093876 3.973623 489.4800 -93.58262 2.709435 0.082328	Mean depende S.D. depende Akaike info cr Schwarz crite Hannan-Quin Durbin-Watso	ent var iterion rion n criter.	14.84471 4.174389 5.681331 5.816010 5.727260 0.324469

Source: Researcher's computation

InterpretationThe test of the null hypothesis ( $H_0$ ) against the alternate hypothesis ( $H_1$ ) is that  $H_0$  is rejected if the calculated p-value is less than the 0.05(5%) level of significance. Therefore, since the calculated p-values of 0.00 and 0.04 were less than 0.05, we state that there is a significant relationship between monetary policy rate and the financial deepening growth in Nigeria. However, All Share Index has insignificant influence on the financial deepening growth in Nigeria.

# 4.4.4 Testing of Hypothesis Four

 $H_0$ : There is no significant relationship between stock market performance indicators and the financial deepening growth in Nigeria. Using the empirical model: CPSR =  $\beta_0 + \beta_1 TOR + \beta_2 ASI + u_4$ , the empirical results from Table 4.7 are presented below:

Table 7. Ordinary Least Squares (OLS) Regression Analysis Results for testing of Hypothesis Four

Dependent Variable: CPSR Method: Least Squares Date: 11/06/19 Time: 16:07

Sample: 134

Included observations: 34

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C TOR ASI	5.779126 0.866569 0.008494	2.126457 0.191400 0.032175	2.717725 4.527525 0.263998	0.0107 0.0001 0.7935
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.433035 0.396456 4.335777 582.7679 -96.54819 11.83853 0.000151	Mean depend S.D. depende Akaike info cri Schwarz criter Hannan-Quin Durbin-Watso	nt var terion rion n criter.	11.62882 5.581007 5.855776 5.990455 5.901705 0.463252

Source: Researcher's computation

InterpretationThe test of the null hypothesis  $(H_0)$  against the alternate hypothesis  $(H_1)$  is that  $H_0$  is rejected if the calculated p-value is less than the 0.05(5%) level of significance. Therefore, since the calculated p-values of 0.01 and 0.00 were less than 0.05, we state that there is a significant relationship between stock market performance indicators and the financial deepening growth in Nigeria. However, All Share Index has insignificant influence on the financial deepening growth in Nigeria.

### 5. DISCUSSION OF THE FINDINGS

The cointegration test analyses results revealed that there is a long-run equilibrium relationship between GDPr, M2R, CPSR, MCR, NSL and TOR while ASI and MPR did not have a long-run equilibrium relationship. In the first hypothesis, a regression coefficient of 88.95 implied that there is a positive relationship between market capitalization ratio, total number of listed securities and economic growth rate in Nigeria. The coefficient of 0.68 for MCR indicates that 1% increase in MCR causes 0.68% increase in economic growth rate in Nigeria. If the number of securities listed increased by one, this caused economic growth rate to increase by 0.45%. The coefficient of determination (R2) was 0.398 which implies that about 39.8% variations in economic growth rate were caused by MCR and NSL while the remaining 60.2% were due to other variables outside the regression model which also affects GDP growth rate in Nigeria. Since the calculated p-value of 0.00 is less than 0.05, the finding was that there is a significant relationship between market capitalization ratio, total number of listed securities and economic growth rate in Nigeria. The F- statistic of 10.26 indicated that the model has a

good fit. The Durbin-Watson statistic of 1.66, shows that if we choose  $^{\mathbf{C}} = 0.05$ , then Durbin-Watson Statistic gives the critical values corresponding to n = 34 and 2 regressors (degree of freedom = 34-2-1 = 31) as dL = 1.66 and dU = 1.83. Therefore, since = 1.66 < du = 1.83, we conclude that the errors are positively autocorrelated.

In the second hypothesis, a regression coefficient of 25.85 indicated that there is a positive relationship between turnover ratio, all share index growth and economic growth rate in Nigeria. The coefficient of 1.40 for TOR indicates that 1% increase in TOR causes 1.40% increase in economic growth rate in Nigeria. A 1% increase in all share index causes 0.16% increase in economic growth rate. The coefficient of determination (R2) was 0.321 which implies that about 32.1% variations in economic growth rate were caused by TOR and ASI while the remaining 67.9% were due to other variables outside the regression model which also affects GDP growth rate in Nigeria. Since the calculated p-values of 0.00 and 0.01 were less than 0.05, the finding was that there is a significant relationship between turnover ratio and economic growth rate in Nigeria. The finding also revealed that All Share Index has insignificant influence on economic growth rate in Nigeria as evidenced in the p-value of 0.08 and t-statistic value of 1.80 respectively. The F- statistic of 7.34 indicated that the model

has a good fit. The Durbin-Watson statistic of 1.57, shows that if we choose  $^{\circ}$  = 0.05, then Durbin-Watson Statistic gives the critical values corresponding to n = 34 and 3 regressors (degree of freedom = 34-2-1 = 31) as dL = 1.57 and dU = 1.83. Therefore, since = 1.57< du = 1.83, we conclude that the errors were positively autocorrelated.

Furthermore, a regression coefficient of 20.63 in the third hypothesis indicated that there is a positive relationship between monetary policy rate and the financial deepening growth in Nigeria. The coefficient of 0.37 for MPR indicates that 1% increase in MPR causes 0.37% increase in financial deepening growth in Nigeria. The coefficient of determination (R2) was 0.148 which implies that about 14.8% variations in financial deepening growth in Nigeria were caused by MPR and ASI while the remaining 85.2% were due to other variables outside the regression model which also affects M2R growth rate in Nigeria. Since the calculated p-values of 0.00 and 0.04 were less than 0.05, the results indicated that there is a significant relationship between monetary policy rate and the financial deepening growth in Nigeria while All Share Index has insignificant influence on the financial deepening growth in Nigeria. The F- statistic of 2.70 indicated that the model has a good fit. The Durbin-Watson statistic of 0.32, shows that the errors were positively autocorrelated. coefficient of 5.77 in the fourth hypothesis indicated that there is a positive relationship between stock market performance indicators and the financial deepening growth in Nigeria. The coefficient of 0.86 for TOR indicates that 1% increase in TOR causes 0.86% increase in financial deepening growth (CPSR) in Nigeria while a 1% increase in ASL causes 0.008% increase in financial deepening growth (CPSR) in Nigeria. The coefficient of determination (R<sup>2</sup>) was 0.433 which implies that about 43.3% variations in financial deepening growth (CPSR) in Nigeria were caused by TOR and ASI while the remaining 56.7% were due to other variables outside the regression model which also affects CPSR growth rate in Nigeria. Since the calculated p-values of 0.01 and 0.00 were less than 0.05, the finding was that there is a significant relationship between stock market performance indicators and the financial deepening growth in Nigeria. Also, All Share Index has insignificant influence on the financial deepening growth in Nigeria. The F- statistic of 11.83 indicated that the model has a good fit. The Durbin-Watson statistic of 0.46, shows that the errors were positively auto correlated.

## 6. SUMMARY, CONCLUSION AND RECOMMENDATIONS

# 6.1 Summary of the Findings

This study was carried out to examine the relationship between stock market performance and economic growth in Nigeria. Ex post facto research design was employed in this study. The relationship between stock market performance and economic growth in Nigeria for the period of thirty one years (1985-2018) is examined in this study. The major findings from this study are summarized below; There is a long-run equilibrium relationship between economic growth (GDPr), money supply (M<sub>2</sub>R), credit to private sector (CPSR), market capitalization ratio (MCR), number of securities listed (NSL) and turnover ratio (TOR) while all share index (ASI) and monetary policy rate (MPR) did not have a long-run equilibrium relationship. There is a significant relationship between market capitalization ratio, total number of listed securities and economic growth rate in Nigeria.

There is a significant relationship between turnover ratio and economic growth rate in Nigeria.

The finding also revealed that All Share Index has insignificant influence on economic growth rate in Nigeria.

There is a significant relationship between monetary policy rate and the financial deepening growth in Nigeria.

All Share Index has insignificant influence on the financial deepening growth in Nigeria.

There is a significant relationship between stock market performance indicators and the financial deepening growth in Nigeria.

#### 6.2 Conclusion

Stock markets are not merely casinos where players come to place bets. Stock markets provide services to the non-financial economy that are crucial for long-term economic development. The ability to trade securities easily may facilitate investment, promote the efficient allocation of capital, and stimulate long-term economic growth. Furthermore, the evidence suggests that stock market liquidity encourages economic growth. Policymakers should consider reducing impediments to liquidity in the stock market. Easing restrictions on international capital flows and creating a conducive and an enabling environment would be a good way to start. Generally, the results are consistent with the majority of theoretical and empirical studies conducted on both developed and developing economies. However, the results indicate that stock-market performance has a stronger effect on economic growth than GDP growth has on stock market indicators. This suggests that, in order to facilitate economic growth in Nigeria, the government should be encouraged to promote policies that support stock market expansion and financial sector development. As a new contribution to the established body of literature, the researcher has attempted to provide an analysis of the relationship between economic growth and stock market performance indicators. Based on the findings we conclude that there is a significant relationship between stock market performance and economic growth in Nigeria.

#### 6.3 Recommendations

Based on the findings from this study, the following recommendations are made:

Since all share index maintained an insignificant relationship with economic growth, there is need to improve trading on stocks by encouraging more companies and securities to be listed on the stock exchange for more equity capitalization. There is need for the Central Bank of Nigeria to control the level of money supply as well as credit to private

sector for more financial deepening in order to galvanize stock market activities. Insider information abuse which has been the major problem of the market should be totally eradicated to restore the investors' confidence in the exchange in order to boost all share index of NSE. The Central Bank of Nigeria should control monetary policy rate in order to attract more investors in the Nigeria stock market.

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