International Journal of Advanced Research in Global Politics, Governance and Management | IJARGPGM
p-ISSN: 2636-686X | e-ISSN: 2636-6878
Volume 4, Number 1 February, 2023

The Study of Government Policy on Stock Market Development and Economic Growth in Nigeria (1984-2020)

Okafor Onwuagana Chukwuma
Department of Public Administration,
Baze University, Nigeria

Article DOI: 10.48028/iiprds/ijargpgm.v4.i1.12

Abstract

This study explored the relationship between stock market development and Nigerian economic growth. This was done to look at Nigeria's stock market and economic growth from 1984 to 2020. The analysis relied on secondary data. The Central Bank of Nigeria statistical bulletin for 2021 presented data on stock turnover ratio, stock market capitalization ratio, total value of shares exchanged ratio, all share index, and GDP. Granger causality, Augmented Dickey Fuller Unit root test, Johansen cointegration test, and error correction model were used to analyze the data. Granger causality was shown. There is no reverse causality between stock market development metrics such as stock market capitalization ratio, turnover ratio, or total value of shares exchanged ratio and economic growth. All share index, stock market capitalization ratio, turnover ratio, and economic growth were integrated of order 1, while total value of shares traded ratio was integrated of order zero, according to unit root test results. The Johansen cointegration test showed that the All-Share Index, Stock Market Capitalization Ratio, Turnover Ratio, and Economic Growth all have four cointegrating relationships. Changes in the all-share index have a positive and significant impact on changes in economic growth, whereas changes in the stock market capitalization ratio and its lag have a negative but insignificant impact on changes in economic growth ($p>0.05$). Changes in the turnover ratio have a positive but insignificant impact on changes in economic growth ($p>0.05$), while its lag has a negative but insignificant impact on changes in economic growth ($p>0.05$). Changes in lagged GDP have a positive and important effect on changes in economic present-period growth (p0.01), and economic growth and the independent variables in our model have a long-run relationship as indicated by the negative and statistically significant error correction term in the model ($p<0.01$). Based on the results, the study recommends that the Federal Government intervene through the Asset Management Corporation of Nigeria (AMCON)/Ministry of Finance Incorporated, that more indigenous quotable companies be encouraged to pursue listing by offering incentives such as tax holidays, tax rebates, and other incentives, and that stock broking firms be encouraged to join forces, either through mergers or outright acquisition amongst other recommendations.

Keywords: *Asset Management Corporation of Nigeria (AMCON), Ministry of Finance, stock market development, Nigerian economic growth, All-Share Index*

Corresponding Author: **Okafor Onwuagana Chukwuma**

Background to the Study

In terms of the distribution and movement of funds, financial markets, like capital markets, serve as an intermediary in an economy. They have several channels by which funds for projects can be made available to companies that need those (Muhammed & Liaquat, 2008). A well-functioning and developed stock market ensure economic growth by lowering the cost of capital or equity for listed firms, as well as rising domestic savings and increasing equity and investment levels (Osie, 2005).

The creation and growth of stock markets has attracted research attention as a driver of economic growth in developing economies around the world, such as Nigeria, especially in the last few decades. This is especially true now that national development has become a priority for many countries. Governments and industry may use the stock market to raise long-term capital for new ventures, as well as to extend and modernize their industrial and commercial operations. The rate of economic expansion often suffers if capital resources are not given to those economic areas, especially industries with growing demand and the ability to increase output and productivity (Ifuero, 2012).

The stock market plays a major role in financial intermediation in both developed and developing countries by channeling idle funds from surplus to deficit units in the economy (Okafor, 2011). As a country's economy expands, more resources are needed to keep up with the rapid growth. Apart from the banking sector, which acts as a conduit between surplus earners and deficit earners in the economy, the stock market acts as a channel by which surplus earners' savings are mobilized and efficiently allocated to achieve economic growth. The allocation of such surplus funds aids in improving capacity utilization and promoting productive activities in the economy. Levine (1992) explains that well-functioning stock markets have often reduced problems of asymmetric information and thereby reduce the costs of lenders and borrowers. This ensures increased productivity through efficient and effective allocation of resources. He further relates that countries with a well-developed stock markets system have been associated with a better per capita income than countries that do not.

According to Okereke (2000), a stock market's other position in the economy is that resources are diverted to the most profitable locations, with government and private sector investments mostly going to high-risk, high-return long-term ventures. This, in turn, contributes to economic development. Stock markets play an important role in the intermediation of surplus (savers) and deficit (debtors) units (i.e., parties that need fund for productive projects).

The Nigerian Stock Exchange (NSE) helps the government and industrialists to collect long-term capital for construction projects and industry expansion and modernization, respectively. This means that the NSE is a market for trading long-term securities in various types. The NSE provides all required facilities, regulations, and procedures to ensure healthy market competition and development. As a result, the NSE acts as a middleman between fund providers and long-term fund investors. The NSE's assigned role is crucial in deciding the economy's overall development. "If capital resources are not provided to those economic

areas, especially industries where demand is growing and which are capable of increasing productivity, then the rate of expansion of the economy will inevitably suffer" (Alile, 1996). As a result, the stock market is characterized as the hallmark of the Nigerian capital market because it plays such an important and necessary role. The stock market operates mainly to facilitate the movement of funds. Capital mobilization, on the other hand, would be limited to the channeling of investments into new problems, resulting in a new rise in capital growth. Since the NSE's inception in 1961, the Federal Government of Nigeria has used the stock market to raise long-term loans for lending to regional and later state governments for development projects. The Federal Government had been encouraging the state Governments to approach the stock market to raise long term capital for development projects on their own merit. In this way, the state governments will be subjected to market discipline.

Currently, most state governments have used the stock market to raise long-term funds for growth. The Nigerian stock market has also become a viable choice for capital formation because of foreign exchange market liberalization, deregulation of interest rate structures, and dividend policy. More businesses are turning to the stock market to help them improve their balance sheets and expand. There have been a flurry of rights issues and subscription deals for equity and debenture stocks during this process.

Several scholars have investigated the role of stock market operations in deciding economic growth. Even though equity issuance is a minor source of funds, Rouseau and Wachtel (2000) in Riman, (2008) advanced four reasons for the stock market's impact on economic development. For instance, a stock market offers investors and entrepreneurs a way to get out of their savings. According to them, venture capital investments would be more appealing in countries with a working public stock exchange than in countries without one. Secondly, capital inflows – both foreign direct investment and portfolio investments – are potentially important sources of investment funds for emerging market and transition economies. Third, the availability of liquidity through structured markets allows both foreign and domestic investors to move their surpluses from short-term assets to the long-term capital market, where the funds will provide companies with permanent capital to finance massive, indivisible ventures with substantial scale economies. Finally, having a stock exchange offers useful knowledge that increases the efficiency of financial intermediation in general (Emeni and Asein, 2003).

Stock market creation offers a forum for bettering capital allocation and, as a result, improving long-term economic growth prospects. According to Ewah (2005), the effectiveness and efficiency with which the stock market executes its capital locative functions determines the overall growth of an economy. When the stock market mobilizes capital, it also allocates a greater portion of that capital to companies with reasonably high prospects, as measured by their returns and risk levels. The significance of this function is that capital resources are channeled by the mechanism of the forces of demand and supply to those firms with relatively high and increasing productivity thus enhancing economic expansion and growth (Ezeabisili and Alajekwe, 2012).

Economic growth may be a result of stock market development, which is popularly argued to attract economic growth. This indicates a potential bi-directional causality between stock market development and economic growth and is based on the popular finance growth-nexus literature, which argues that finance and economic growth are causally related. In terms of economic growth potentially triggering stock market development, this may happen because economic growth generates opportunities for investment, which would contribute to stock market development as stock market investors arise to provide credit to these companies on the stock market.

As a result, the current research focuses on Nigeria's stock market development and economic growth. The research focuses on the relationship and causality between stock market development and economic growth, as well as the effect of stock market development on economic growth, with economic growth being measured using the Log of GDP. Three different metrics of stock market growth, namely the market capitalization ratio, turnover ratio, and total value of shares traded ratio, capture different dimensions of stock market development. The stock market capitalization to GDP ratio is a measure of the stock market's size and is linked to the ability to mobilize capital and diversify risk (Levine and Zervos, 1996; Yartey, 2008). The liquidity dimension of stock market growth is captured by the turnover ratio and total value of shares traded ratio. These metrics supplement the stock market size metric by capturing the capital market's operation. Liquidity of the market, which refers to the capacity to exchange easily or the ease and speed at which economic agents can buy and sell securities, is a key feature of a developed capital market.

Statement of Research Problem

The importance of stock market creation in an economy's growth cannot be overstated. However, in the case of developing world stock markets, especially those in Africa, such as Nigeria's, there are impediments that have prevented the growth of stock markets over time. Given previous research highlighting the importance of a developed stock market for economic growth, weak development of African country stock markets may have prevented the realization of the developing countries' bright economic growth prospects, including Nigeria.

The growth of the Nigerian stock exchange has been hampered by a variety of factors over the years, including low quality institutions, a lack of rule of law, and poor regulation. As a result, this has contributed to the market's low participation rate. This is despite financial liberalization undertaken as part of the Structural Adjustment Programme (SAP) in the 1980s and subsequent reforms, all of which should have led to the Nigeria stock market's improved growth. The Nigeria Stock exchange as a source of funds for firms to expand remains rather low in its development as evidenced by the low values of stock market development indicators over the years namely, stock market capitalization ratio, turnover ratio, total values of shares traded ratio. These indicators remain rather poor and indicate that he markets suffers from liquidity challenges (measured by stock turnover ratio and total value of shares traded ratio) (Osaze, 2000). This is despite previous research, often using ordinary least squares, finding a positive impact of stock market development on economic growth in

countries in general (Bilal, 2016); and in Nigeria in particular, as highlighted by Bernard and Austin (2011), Okonkwo, Ogwuru, andAjudua, (2014), and Adigwe, Nwant to, and Amala, (2015), which remains dubious in the context of developing country studies. Furthermore, studies that investigate the causal relationship between stock market development and economic growth reveal inconsistencies in their findings, with some showing a unidirectional relationship between stock market development and economic growth (Aigbovo and Izekor, 2015), while others show a bi-directional relationship (Okonkwo and Ogwuru, 2015). Addressing the weakness of methodology employed by previous studies using Ordinary least squares in examining stock market development and economic growth and inconsistencies regarding the direction of causality between stock market development and economic growth represent the research gap to be filled by the present study.

Research Question

This analysis will be motivated by the following research questions:

i. Is there a connection between Nigerian stock market development and economic growth?
ii. What is the effect of Nigeria's stock market creation on the country's economic growth?

Objectives of the Study

The overall goal of this research is to look at Nigeria's stock market and economic growth. The following are the specific objectives:

i. Determine the causality between stock market development and economic growth of Nigeria.
ii. To assess the effect of Nigeria's stock market development on the economic growth of Nigeria.

Significance of the Study

The thesis will act as a reference material for prospective researchers who might be interested in conducting similar studies on this research work once it is completed. The research will assist policymakers in the country in better understanding the empirical relationship between stock market development and economic growth, helping them to formulate policies that will better position the economy. Furthermore, by making suggestions, policymakers and executors would be able to use them to boost the growth of the Nigerian stock market, allowing the Nigerian economy to advance.

Furthermore, the study is interesting because it adds to the body of literature on the effect of stock market development on economic growth and opens new avenues for analysis.

Scope of the Study

The current research will look at the progress of Nigeria's stock market and economic growth from 1984 to 2015. This will result in 32 annual observations, which will provide a large enough sample size for useful regression analysis results. Furthermore, by beginning the study in 1984, we can capture the time when Nigeria's stock market was founded and continuing

until the most recent year observation, enhancing the usefulness of data-driven recommendations.

The Study's Strategy

The thesis will be meticulously divided into five chapters for the sake of simplicity and orderliness. The history of the study, the statement of the issue, the research question, the research objectives of the study, the importance of the study, the scope of the study, and the study plan are all included in chapter one. The conceptual structure, theoretical framework, and analysis of previous empirical studies on stock market development and economic growth are all included in Chapter 2, which is the literature review. The research methodology chapter, which primarily outlines the theoretical structure, model specification, apriori expectation, variable measurement, data analysis process, and source of data. The fourth chapter will cover the presentation of data analysis findings, as well as their explanation and discussion. Finally, chapter five, the study's final chapter, offers a review of results extracted from all of the study's chapters, as well as the study's conclusion, policy proposals based on the research findings, and suggestions for future research.

Literature Review

This chapter examines the related literature on Nigeria's stock market development and economic growth. As a result, this chapter is structured to provide a summary of principles, economic growth models, and empirical literature.

Review of the Concepts of Economic Growth and Stock Market Development

Economic growth and the stock market are concepts that have evolved over time. Theoretical and observational experiments are used to evaluate these principles.

Economic Growth

Economic growth, according to Lipsey (1986), is characterized as a long-term upward trend in a country's total production. This means that the Gross Domestic Product (GDP) will continue to grow for a long time. An increase in an economy's capacity to produce goods and services from one time to the next. Economic development is often linked to technological advancements. An economy's growth is characterized not only as an increase in productive ability, but also as an improvement in the quality of life for its citizens (Ochejele, 2007).

Economic growth, according to Dolan and Lindsey (1991), is most measured in terms of an increase in Gross Domestic Product (GDP), which is a calculation of the economy's overall production of goods and services. Economic development, according to Friedman (1972), is the expansion of various structures such as schooling, agriculture, and so on without a change in the framework. This means that for an economy to evolve, the different structures or frameworks within it must expand, even though their structure remains unchanged.

Todaro and Smith (2006), describe economic growth as a steady process in which the economy's productive potential is increased over time, resulting in increasing levels of national production and income. Economic growth, according to Jhingan (2004), is described

as an increase in production. He went on to claim that it is connected to a sustained increase in a country's per capita income or production, as well as growth in its labor force, consumption, resources, and trade volume.

Taking into account the different meanings of by comparing one period of time to the next, economic growth refers to an improvement in an economy's capacity to manufacture goods and services. A positive change in a country's or economy's output, or demand, is referred to as economic development. This term includes all facets of an economy, including income, taxation, and wages, as well as production rates (Aiguh, 2013). Economic growth is a critical component of long-term sustainability. It raises people's living standards by improvements in infrastructure, health, housing, education, and agricultural productivity. Thus, sustainable development is enhanced by economic growth (Dewett, 2005).

Stock Market

The stock market is a place where long-term loans are traded. It provides fixed and working capital to businesses and finances the federal, state, and local governments' medium and long-term borrowings (Levine, 1991). As a result, the capital market is made up of institutions and structures that pool short- and long-term assets and make them available to corporations and governments (Ezeoha, Ebele and Onyiuke-Okereke, 2009). The stock market is one of the most important sources for companies to raise money. This allows businesses to be publicly traded, or raise additional capital for expansion by selling shares of ownership of the company in a public market. The liquidity that an exchange provides affords investors the ability to easily sell securities (Osie, 2005).

In another sense, a stock market is a public market (a loose network of economic transactions, not a physical facility or discrete entity) for the trading of company stock shares and derivatives at a negotiated price; these securities include those listed on a stock exchange as well as those exchanged privately. The stocks listed are traded on stock exchanges, which are companies or mutual associations that specialize in bringing buyers and sellers of stocks and shares together (Donwa and Odia, 2010).

By channeling idle funds from surplus to deficit units in the economy, the stock market plays a significant role in financial intermediation in both developed and developing countries (Okafor et al, 2011). In terms of the distribution and movement of funds, stock markets serve as an intermediary in an economy. They have a number of channels by which funds for projects can be made available to companies that need them (Muhammed, Nadeem and Liaquat, 2008).

According to Beck and Levine (2002), the stock market serves as a channel through which savings of the surplus earners are mobilized and efficiently allocated to achieve economic growth, the allocation of such surplus fund helps in enhancing capacity 14 utilization and promoting productive activities in the economy. A stock market is a public market where company stock and options can be exchanged at a fixed price; these stocks can be listed on a stock exchange or traded privately. Stock markets are one of the important components of the

financial system, since they assist businesses or corporations in raising capital by selling securities and also provide a trading atmosphere for those shares (Okonkwo, Ogwuru and Ajudua, 2014).

Functions of Stock Markets

The following are functions of stock markets around the world as highlighted by Al-faki (2007);

1. The encouragement of fast money.
2. It is a piece of equipment used to mobilize long-term financial capital for industrial growth.
3. Providing the government with a source of revenue other than taxes.
4. The pooling of savings from a variety of economic units in order to spur growth and development.
5. Providing liquidity to any investor or assisting in the growth of investors.
6. The expansion of asset ownership and the creation of a strong private sector.
7. It is a method of getting debts paid off.
8. Using the pricing mechanism, promote a more effective distribution of new investment.
9. The creation of a built in operational and allocation efficiency within the financial system to ensure that resources are optimally utilized at relatively little cost.
10. It is a necessary liquidity mechanism for investors through a formal market for debt and equity securities.

Overview of the Nigeria Stock Market

The Nigerian Stock Market, also known as the Nigerian Stock Exchange, was established in 1960 as the Lagos Stock Exchange and renamed the Nigerian Stock Exchange in December 1977. It first opened for business in 1961, with 19 shares available for trading. Branches have been developed in the country's major cities. Except for the head office in Lagos, The Nigerian Stock Exchange now has thirteen branches. There is an electronic trading floor in each branch. In 1961, the company's headquarters in Lagos were built. The NSE continues to grow to meet the needs of its valued customers and to maintain its competitiveness. There are approximately 200 companies and 258 securities listed, The Exchange operates fair, orderly and transparent markets that bring together the best of African enterprises and the local and global investor communities.

The stock market is the bedrock of every financial system because it provides the funds needed to finance not only businesses and other economic institutions, but also the government's overall program. The capital market is primarily a market for long-term securities such as stocks, debentures, and bonds with maturities of more than three years. Despite the fact that shares were floated as early as 1946, the proper functioning of the capital market did not begin until the establishment of the Central Bank in 1959 and the launch of the Lagos stock exchange in 1961.

The government, quoted firms, stock brokers, the Central Bank of Nigeria, banking and non-banking institutions, the Nigeria stock exchange, and the Nigeria Securities and Exchange Commission are the main participants in the Nigeria capital market. According to Aigbovo and Izekor (2015), the Nigeria stock market was formed for the following reasons:

1. To overcome difficulties of selling government stock.
2. To provide local opportunities and lending for long term purpose.
3. To enable authorities mobilized long term capital for economic growth and development.
4. To enable the foreign business the chance of offering their shares to interested.

Nigerian Stock Market Measures

According to Kolapo and Adaramola (2012), the following are classified as the Nigerian stock market measures;

Market Capitalization Ratio (MCR): This metric is determined by dividing the market value of listed stocks by GDP. This metric is based on the premise that total market size is positively linked to the ability to mobilize capital and diversify risk across the economy. The market capitalization index is a common metric for calculating the value of the stock market. The cumulative value of all listed shares is equal to market capitalization.

Total Value of Shares Traded Ratio (STR): This metric is determined by dividing the total value of shares exchanged on a stock exchange by GDP. The total value traded ratio calculates structured trading of firm equity as a percentage of national output, and thus should represent liquidity on a national level. While a market may be big, there may be little trading, so the total value traded ratio complements the market capitalization ratio.

Liquidity: Is a term that refers to an investor's ability to buy and sell securities quickly. It's a key predictor of stock market performance because it demonstrates how the market aided in bettering capital allocation and, as a result, enhancing long-term economic growth prospects. This is made possible by investors' ability to change their portfolio rapidly and cheaply, lowering the risk of their investment and encouraging investments in ventures that are more lucrative but have a longer gestation period.

Turnover Ratio: Is used as a reference index for market liquidity rating and transaction cost ratio. The total value of shares traded on the stock exchange divided by market capitalization equals this ratio. It is also a ratio of the market capitalization divided by the value of the stock market's listed securities. It is also an indicator of the size of the stock market in relation to the volume of securities transactions.

Role of Nigeria Stock Market for Nigeria's Economic Growth

The stock market's efficient and effective activity is expected to fuel economic growth by offering opportunities to increase domestic savings and investments in both qualitative and quantitative terms (Singh, 1997). The stock market offers a framework for encouraging domestic savings by providing individuals and corporations with supplementary financial

instruments capable of meeting their risk preferences and liquidity requirements (Levine and Zervos, 1998).The Nigerian Stock Exchange has not only made funds available for investment but has also allocated these funds to ventures that offer the highest returns to investors, primarily through dividends and stock price appreciation. The market is critical to Nigeria's economic development because it serves as a conduit for the government's monetary policy, as well as tracking and controlling managers and promoting financial risk management.

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

1. The stock market encouraged the inflow of foreign capital when foreign companies or investors invest in domestic securities.
2. The capital market assists the government in privatization initiatives by allowing members of the public to purchase shares of public companies through the stock exchange.
3. It has had a positive effect by offering a channel for the sale of shares and other securities to raise new funds for operations expansion, resulting in increased production and output.
4. It decreases the private sector's reliance on short-term funding for long-term projects, while also allowing the government to fund projects that provide basic facilities for socio- economic growth.
5. The market provides means of allocating the nation real and financial resources between various sectors, industries, and companies. Through the capital formation and allocation mechanism the market efficiently distributes the scarce resources for the optimal benefit to the economy.

Theories of Economic Growth

A variety of economic growth theories have been established over the years and continue to serve as the basis for modern empirical research. This section surveys and examines a variety of important hypotheses of economic growth as they apply to the current research.

Harrod Domar Growth Theory

Harrod and Domar (1946), addressed the Harrod Domar growth theory, which is focused on advanced economies' experience. They are specifically aimed at advanced capitalist economies, and they attempt to examine the need for steady growth in such an environment. A more detailed lighten time theory of input is given by Harrod Domar growth theory. In their separate writings, Harrod Domar agrees to retire on the condition of steady economic growth. Even though their models vary in certain details, their conditions are basically the same. As a result, their versions are known as Harrod Domar models. Harrod and Domar, on the other hand, see capital accumulation as a crucial factor in the economic growth process.

More capital should be incurred to promote sector for the emphasis of capital accumulation, (that is net investment has a double role to play in the economic growth). It generates on one hand an increase production capacity of the economy. Such as 20 establishment of new factory which generates income for those who supply labour (factor), bucks, steel, oil, cement

which enhances sector to be more effective therefore capital stock there by enhance the production capacity of the economy. The new income generated creates demand for goods which promote sector promotion and substitution for import. The necessary condition for growth is that new spending for demand must be adequate to absorb the production generalizes by the necessary stock or else, there will be idle growth. Assumptions Harrod Domar assumed a constant output ratio: ΔY = ΔK. ΔY/ΔK (1) Where; Y = National Output BK = Total Stock of Capital Some output of capital ratio is assumed to be constant and increase in National Output which is Y (change in National Output) must be equal to K ×ΔK = (ΔY =K × ΔK). It implies that growth in national growth will depend on and be limited by the growth in capital stock. If an economist assumes an economy to be in equilibrium, and the existing stock of capital is fully employed then Y =KΔK. This is how much additional output will be pilled to produce a given quantity of additional output. Thus ΔK =1, if ΔK =1, then Y =KΔK hence ΔY =K1 At equilibrium level of output, desired savings must be equal to desired level of income. Therefore SY = I invariable I (investment) = S given the assumption, the growth rate is defined as Δ*Y/Y.

Meade's Model

The net output generated in the economy depicted above is determined by four factors:

(I) The total amount of available capital in the form of machines.
(II) The total amount of available labor force.
(III) The availability of land and natural resources.
(IV) The existing state of technological expertise.

This relationship is expressed in the form of the production function as: Y = F (K,L,N,t)
(2) Where; Y= net output or net national income.
K= the existing stock of capital (machines).
L= the labour force.
N= land natural resources.
I= time over which technological takes place.
Assuming the amount of land or natural resources to be fixed, net output can increase in any one year with the growth in K, L, and f. This relationship is shown as: ΔY = VΔK +W ΔL+ΔY

Where;
Δ in each case represents an increase.
V is the marginal product of capital, the marginal product of labour and V is used in place of f. Thus "the increase over the year in the rate of annual net output (ΔV) is equal to the increase in the stock of machinery (ΔK) multiplied by its marginal products (V) plus the increase in the amount of labour (ΔL) multiplied by its marginal product (W) plus: he 23 increase in the rate of annual output due simply to technical progress (ΔY')." The annual proportionate growth rate of output is;
ΔY/Y = VK/Y. ΔK/K + WL/Y. ΔL/L +ΔY/Y

Where;
ΔY/Y is the proportionate growth rate of output.

ΔK/K the proportionate growth rate of the stock of capital.
ΔL/L the proportionate growth rate of labour force.
ΔY'/Y the proportionate growth rate of technical progress during a year.
Let these proportionate growth rates be expressed as y. k, I and r respectively, the proportionate marginal product of capital VK/Y as U and the proportional marginal product of labour WL/Y as Q. * Now the basic relationship is; y= Uk+ Ql+ r

This shows that the growth rate of output(y) is the weighted sum of three other growth rates, first the sum of the growth rate in the stock of capital (k) weighted by the proportional marginal product of capital (If) plus the growth rate of population (I) weighted by the marginal product of labour (Q) plus the growth rate of technology (r).

Classical Growth Theory
The classical Growth theory is as discussed by Adams (1770), the classical economics usually considered as the modern school of economic thought, includes Adam Smith, David Ricardo, John S. Mills, Thomas Malthus and so on. The main contribution of classical approach to economic growth is the view that product entails the produce means for productivity which include capital and land resources.

In 1776, Adam Smith wrote in his book "The Prosperity of Nations" that income per capital in any country can be affected or controlled by the talents, dexterity, and judgment with which resources are applied, as well as the ratio of employed to unemployed workers. According to Smith, the division of labor is the secret to increasing labor productivity, which is dependent on both the size of the economy and the rate of capital accumulation. The most significant advancement is labor's productive strength in the division of labor.

Thus, in classical theory, huge productivity is traceable to division of labor. Smith saw economic growth as facilitating the activities of farmers, producers, and businesspeople. The accumulation of component effort, which is like the accumulation that occurs in agriculture manufacturing industries and ads, is followed by a continuous capital accumulation technical phase, division of labor, and increase in profit over time. Another claim advanced by David Ricardo is that trade is an essential component of an economy because it is intended to benefit the participating countries, especially because of some comparative advantage.

Empirical Literature Review
Causality between Stock Market Development and Economic Growth
Aigbovo and Izekor (2015), analyzed stock market development and economic growth in Nigeria and used time series econometric techniques (unit root test, co-integration, error correction process, and granger causality) to re-examine the finance-growth Nexus for the period 1980-2011. Real Gross Domestic Product (RGDP) was used as a proxy for economic growth, while stock market development was calculated using Market Capitalization (MCAP), Turn Over Ratio (TR), Total Value of Shares Traded (VLT), and All Share Index (ASI). The study reveals that turnover ratio (TR) positively and significantly influences economic growth both in the short-run and long-run while total value of share traded (VLT) and all share index (ASI) were significant in the short-run.

In Nigeria, Okonkwo (2015), investigated the effect of stock market development on economic growth, as well as the direction of causality between stock market development and economic growth. The Johansen co-integration model was used to assess the stock market's development and causal relationship with economic growth using four stock market development indices: market capitalization, number of transactions, all-share index, and total value of market transaction. All the stock market growth interventions were found to be co-integrated in the report. Results obtained for all measures of stock market development indices point to the existence of a positive relationship between stock market development and economic growth except for market capitalization and total value of market transaction.

Guglielmo, Howells and Solimon (2004), examines the causal linkage between stock market development, financial development, and economic growth. The argument is that any inference that financial liberalization causes savings or investment or growth, or that financial intermediation causes growth, drawn from bivariate causality tests may be invalid, as invalid causality inferences can result from omitting an important variable. The empirical part of this study exploits techniques recently developed by Toda and Yamamoto (1995) to test for causality in VARs and emphasizes the possibility of omitted variable bias. The evidence obtained from a sample of seven countries suggests that a well-developed stock market can foster economic growth in the long run.

Summary of Literature Review

Concepts of stock market development and economic growth, theories of economic growth, and empirical research on stock market development and economic growth have all been discussed in this chapter. Harrod Domar growth theory, Meade's neoclassical model of economic growth, Solow growth model, Classical growth model, and efficient market theory to capture stock market production were among the economic growth theories examined. The study's empirical analysis includes many reports from different developing countries around the world, with most of them focusing on Nigeria.

Based on the empirical review above, in most of the studies stock market development was found to have a positive impact on economic growth both when time series studies were examined as well as in panel data studies especially of African countries. It is however noted that most of the studies especially those carried in Nigeria adopt ordinary least square regression techniques and this does not enable an examination 39 of the long run relationship between stock market development and economic growth as will be enabled where co-integration and error correction model are employed. Further, those studies that examine causality between stock market development and economic growth reflect inconsistencies in their findings as some result shows uni-directional relationship between stock market development and economic growth (Such as Aigbovo and Izekor, 2015), while others show bi-directional relationship between stock market development and economic growth (Such as Okonkwo, 2015; Osuala, Okereke and Nwansi,2013; Acquah-sam and Salami, 2014).

Given the contradictions in findings in the literature regarding causality, the current study seeks to investigate causality between stock market development and economic growth in

Nigeria as a contribution to information. Further, the study will shed light not only on the impact of stock market development on economic growth, but also on the use of co-integration and error correction models based on the reasoning that economic growth and stock market development are long run variables, and hence the need to capture the long run equilibrium relationship between the two.

Research Methodology

The research methodology used to examine Nigeria's stock market development and economic growth is discussed in this chapter. As a result, this chapter covers the theoretical structure, model definition, a priori expectation, calculation of variables, data analysis process, and data source.

Theoretical Framework

The theoretical framework for the study will be the Neoclassical Growth model. The model is used as the theoretical basis for this analysis because it is an exogenous growth model that has been commonly used in empirical studies of finance and economic growth. Financial development, which will be proxied by stock market development in our case, is an input in the economic growth process and results in economic growth in such studies. Odedokun (1998) is one of these studies that used the neoclassical economic growth model to analyze financial development and economic growth.

Model Specification

The model for the study is a modification of Aigbovo and Izekor (2015), model where market capitalization in the model is replaced by market capitalization ratio. Our Model is specified as below: GDP = (MCR, TVSTR TOVR, ASI)

The above equation is specified as an econometric model as below:

$$LOGGDP_t = \alpha_0 + \alpha_1 MCR_t + \alpha_2 TVSTR_t + \alpha_3 TOVR_t + \alpha_4 ASI_t + s_t$$

Where,
GDP = Gross Domestic Product
MCR = Market Capitalization Ratio
TVSTR=Total Value of Share Traded Ratio
TOVR = Turn Over Ratio
ASI = All Share Index
ε = The Error Term

From the above model, is the constant. are the coefficients of the independent variables measuring the impact of a unit change in the independent variable on the dependent variable (Economic growth). The sub-scripts t refers to the time period of observations which in the case of the present study is 1984 to 2015.

A Priori Expectation

In the current analysis, it is desirable and important to state the expected signs of the independent variables based on established economic theory. As a result, the independent variables' a priori assumptions in this analysis are as follows.

Stock Market Capitalization Ratio: This is expected to have a positive relationship, i.e, $\alpha 1>0$. This is because stock market capitalization measures the size of the stock market, and as highlighted by Levine and Zervos (1996) and Yartey (2008) is positively correlated with the ability to mobilize capital and diversify risk.

Total Value of Share Traded Ratio: This is expected to have a positive relationship, i.e., $\alpha 2>0$. The total value traded ratio measures the organized trading of firm equity as a share of national output and therefore should positively reflect liquidity on an economy-wide basis.

Turn Over Ratio: This is expected to have a positive relationship, i.e., $\alpha 3>0$. This is because high turnover ratio is often used as an indication of low transaction cost in the stock market. All Share Index: This is expected to have a positive relationship, i.e., $\alpha 4>0$. This is because all share indexes are a market index reflecting a total picture of the behavior of the common share quoted.

Measurement of Variables

Gross Domestic Product (GDP): This is the amount of money a country earns from its economic activities. It is turned into logs.

Market Capitalization Ratio: This is the amount of money in the stock market relative to the amount of money in the economy. It assesses the scale of the stock market as well as the stock market's contribution to economic development.

Total Value of Share Traded Ratio: This measure equals total value of shares traded on the stock market exchange divided by GDP. It measures liquidity of the stock market.

Turn Over Ratio: Turnover measures trading relative to the size of the stock market. Turnover ratio is used as an index of comparison for market liquidity rating and level of transaction costs. This ratio equals the total value of shares traded on the stock market divided by market capitalization.

All Share Index: All share index measures overall direction of the market and the scope of its movement. It is a series of number which shows the changing average value of the share price of all companies on a stock exchange.

Method of Data Analysis

The present study consists of two objectives all of which were achieved by analyzing data using EViews 7.1.

Granger Causality was used to accomplish the study's first goal, which was to investigate the causality between stock market development indicators and economic growth. Granger causality is a measure of the causal relationship between two variables, in this case each individual stock market development indicator and economic growth. Granger causality explores the relationship between the stock market capitalization ratio and the log of GDP (economic growth), the stock turnover ratio and the log of GDP (economic growth), and the total value of shares exchanged ratio and the log of GDP (economic growth) (economic growth).

The effect of stock market development on economic growth was analyzed using the Enhanced Dickey fuller Unit root test, Johansen cointegration, and error correction model in the study's second objective. The error correction model captures the long run relationship between stock market development and economic growth, all of which are long run variables by their very nature. Regression was used to estimate our model's error correction model, as defined in the equation above.

However, prior to performing estimation of the error correction model, Augmented Dickey Fuller unit root test and Johansen cointegration test were performed on variables employed in the study. Further, post-estimation diagnostic tests as a test of serial correlation, and F-test for the joint significance of independent variables were performed after model estimation.

Source of Data

Secondary data was used in this analysis. These are time-series data that span the years 1984 to 2015. The Central Bank of Nigeria statistical bulletin for 2015 presented data on stock turnover ratio, stock market capitalization ratio, total value of shares exchanged ratio, all share index, and GDP.

Data Analysis and Presentation of Results

Data analysis was carried out to meet the study's objectives, using the methodology outlined in the previous chapter.

Variable Descriptive Statistics

Descriptive statistics are those that quantitatively define or summarize the characteristics of a set of data. Descriptive statistics summarize the study by highlighting key statistics about the data distribution which can be used to investigate the properties of data used in data analysis. Table 1 shows the descriptive statistics of the dependent variable and independent variables used in our approximate model based on this foundation.

Table 1.

Descriptive Statistics	GDP (In Billions of Naira)	Market Capitalization Ratio (In Decimals)	Turnover Ratio (In Decimals)	Total Value of Stocks Traded Ratio (In Decimals)	All Share Index
Mean	32226.04	0.078648	0.062572	0.006955	14218.83
Median	23068.85	0.016717	0.058070	0.000908	7169.883
Maximum	69023.93	0.307105	0.175588	0.037186	50424.70
Minimum	13779.26	0.000399	0.010193	1.17E-05	100.0000
Std. Dev.	17359.73	0.103279	0.036937	0.010394	14218.83
Observations	**32**	**32**	**32**	**32**	**32**

From Table 1 above, the mean of GDP of Nigeria for the period of 1984 – 2015 was N32226.04 Billion. The median value of GDP was of N23068.85 Billion and the maximum value of GDP was N69023.93 Billion. The mean value of Nigeria's GDP is substantially high at N32226.04 Billion and this implies that Nigeria has experienced high growth over the years on average and is a rapidly growing economy. Such high economic growth may be further promoted if the Nigeria stock market plays a central role in the growth of the Nigerian economy through enabling efficient allocation of resources. Market capitalization ratio, stock turnover ratio, total value of stocks exchanged ratios, and all share indexes are stock market metrics. From 1984 to 2015, the average market capitalization ratio was 0.0786, with a median value of 0.307. However, for a country like Nigeria, where an established stock market is important for economic development, the mean value of market capitalization ratio is low. This indicates that Nigeria's stock market is relatively small and contributes very little to GDP, which is concerning for the Nigeria stock market's growth. The stock market turnover ratio, on the other hand, averaged 0.0626 and peaked at 0.176. The stock market turnover ratio, like market capitalization, is an exceptionally low indicator of stock market growth in Nigeria.

Furthermore, the Total Value of Stocks Traded ratio, which averaged 0.006 and peaked at 0.0372, is exceptionally low and is the lowest on average of all stock market growth metrics in Nigeria. This low ratio of Total Value of Stocks Traded corresponds to a country with a weak stock market growth. Low liquidity, insufficient foreign participation on the stock market, inadequate availability of a variety of financial market instruments, weak regulation, and so on are all characteristics of poor stock market growth, some of which may be evident in the Nigeria stock exchange and have contributed to its low level of development. Finally, the all-share index, which is currently trading at N14218.83 on average with a high of N50424.00, indicates a substantial increase in the market price of the average stock on the Nigerian stock exchange. This is more so when we consider the 47 minimum of N100 which was realized in 1984. However, the mean value of All share index of N14218.83 is still substantially low for a stock market seeking to be developed and comparable with stock markets of the developed world. The low all share indexes though may reflect the challenges of the Nigeria economy over the years which in adversely affecting the Nigeria all share index acts as a signal for stock

market participants who may be discouraged by low stock prices. A low average stock price is consistent with a poorly developed stock market.

Error Correction Model Regression Results

Error correction model regression results from estimating our model specified in equation (9) with all variables in their stationary forms (i.e. I(1)) and given evidence of cointergation from Johansen cointegration test results are as presented in Table 2 below. (Extensive E-Views output is presented in Appendix Table A7).

Table 2: Error Correction Model Regression Results

Dependent Variable	Δ(LogGDP)
C	-0.0352
	(0.0186)
ECM(-1)	-1.6769***
	(0.4352)
Δ(MCR)	-0.3968
	(0.2238)
Δ(MCR(-1)	-0.1860
	(0.2097)
Δ(TOVR)	0.0724
	(0.2481)
Δ(TOVR(-1)	-0.2348
	(0.2132)
Δ(LGDP(-1)	1.6819***
	(0.3526)
Δ(ASI)	0.00000346**
	(0.00000167)
R-squared	0.5374
AdjustedR-squared	0.3902
DurbinWatson	1.8700
F-Statistic	3.6519
No. ofObservations	32

, *, represent significance of standard errors at 5% and 1% levels of significance. Source: Author's Computation (2017)

Table 2 above is the error correction model ordinary least squares regression results from estimating our model specified in equation (9). The R-squared is 0.53. This means that 53% of changes in economic growth are explained by changes in explanatory variables. The adjusted R-squared which provides a better indication of goodness of fit than the R-Squared is however much lower at 0.39. The low value of adjusted r-squared therefore indicates that some important variables contributing to economic growth have been excluded from the estimated model. However, the excluded variables are not central to the arguments of the present study and so may be discarded without much implication for the validity of the regression results. Further the F-statistic of 3.6519 which is a test of joint statistical significance of the coefficients of the model is statistically significant at the 5% level of statistical significance implying that the coefficients of explanatory variables are jointly statistically significant. Finally, the Durbin –Watson Statistics of 1.87 which is approximately 2 is indicative of the absence of serial correlation in residuals of our model. Therefore, based

on R-squared, F-statistic, and Durbin Watson which are all acceptable, we can conclude that we have estimated a good model and can therefore proceed to interpret our error correction model regression results.

Interpretation of Error Correction Model Regression Results

The error correction model term captures the long-run equilibrium of the model to be estimated. Evidence from the Error Correction Model results as in Table 5 above, indicates that there exists a long run relationship between economic growth and the independent variables in our model. The coefficient of the lag of the error correction model term which by nature is negative is statistically significant at the 1% level in our model and indicates that 1.6769 percent of the disequilibrium in the previous year would be corrected in the current year. The coefficient of the change in Market Capitalization Ratio, Δ(MCR) is -0.3968 and is negative and statistically insignificant at all levels of statistical significance. The coefficient of the change in Market Capitalization Ratio, Δ(MCR) means that a 1-unit change in Market Capitalization Ratio contributes negatively to a change in economic 55 growth of the Nigerian economy by 0.3968 percent. However, change in Market Capitalization Ratio, is not important in explaining changes in economic growth of Nigeria. Further, the coefficient of the one period lagged change in Market Capitalization Ratio, Δ(MCR (-1)) is -0.1860 and is negative and statistically insignificant at all levels of statistical significance. The coefficient of the one period lagged change in Market Capitalization Ratio, Δ(MCR (-1)) means that a 1 unit change in one period lagged Market Capitalization Ratio contributes negatively to a change in present period economic growth of the Nigerian economy by 0.1860 percent. The results suggest that changes in economic growth responds to changes in stock market capitalization with a time lag. However, change in one period lagged Market Capitalization Ratio, is not important in explaining changes in present period economic growth of Nigeria. The coefficient of the change in Turnover Ratio, Δ(TOVR) is 0.0724 and is positive and statistically insignificant at all levels of statistical significance. The coefficient of the change in Turnover Ratio means that a 1-unit change in turnover Ratio contributes positively to change in economic growth of the Nigerian economy by 0.0724 percent. However, change in Turnover ratio is not important in explaining changes in economic growth of Nigeria. Further, the coefficient of the one period lagged change in Turnover Ratio, Δ(TOVR (-1)) is -0.2348 and is negative and statistically insignificant at all levels of statistical significance. The coefficient of the one period lagged change in Turn Over Ratio, Δ(TOVR(-1)) means that a 1 unit change in one period lagged Turnover Ratio contributes negatively to a change in present period economic growth of the Nigerian economy by 0.2348 percent. However, change in one period lagged Turnover Ratio, is not important in explaining changes in present period economic growth of Nigeria. 56 The coefficient of the change in one period lagged economic growth, Δ(LGDP(-1)) is 1.6819 and is positive and statistically significant at the 1% level of statistical significance. The coefficient of the change in one period lagged economic growth, Δ(LGDP(-1)), means that a 1 unit change in change in one period lagged economic growth contributes positively to a change in present period economic growth of the Nigerian economy by 1.6819percent. Change in one period lagged economic growth is important in explaining changes in present period economic growth of Nigeria.

This may be so as lagged economic growth results in a boost to present period economic growth as previous period economic growth is gainfully used to promote further future economic growth. Finally, the coefficient of the change in All Share Index, Δ(ASI) is 0.00000346 and is positive and statistically significant at the 5% level of statistical significance. The coefficient of the change in all share index means that a 1-unit change in all share index contributes positively to a change in economic growth of the Nigerian economy by 0.00000346 percent. Change in all share index is important in explaining changes in economic growth of Nigeria. This may be so as a rise in the share price is indicative of a positive signal to the market of positive prospects for the market which attracts savers to purchase financial instruments in the market and consequently economic growth results as funds are made available on the stock market for investors to borrow for investment and the investors borrow such funds for use in profitable projects.

Discussion of Regression Results

Based on the interpretation of the regression results of error correction model estimation, we observe that while present period market capitalization ratio and its lag are negative and insignificant, turnover ratio is positive and insignificant, and lag of turnover 57 ratio is negative and insignificant. Thus, all measures of stock market development are insignificant for Nigeria's economic growth. The findings of negative but insignificant impact of market capitalization and its lag on Nigeria's economic growth reflects the low level of development of the Nigeria stock market. Evident weaknesses exist in the Nigeria stock market which have hindered the development of the Nigeria stock market amongst which are weak quality of institutions, which include regulation, and rule of law. Due to weak regulation, inefficient suppliers of credit are prevalent in the Nigeria stock market and weak stock market regulation as well as monitoring prevents efficient credit suppliers from taking part in the market consequently affecting competition that should result in developed stock markets where regulation and monitoring are tight and therefore adversely affecting Nigeria's economic growth. Studies in support of our findings include that of Wang and Ajit (2015). With regards to turnover ratio, which we find to be positive and insignificant, and its lag which is negative and insignificant, our findings suggest a positive but insignificant impact of stock market liquidity as measured by turnover ratio on economic growth. Increased stock market liquidity is important for a highly developed stock market and it is this liquidity characteristic that differentiates developed country stock markets from those of developing countries such as Nigeria where stock markets are highly illiquid. Liquid capital markets as highlighted by Acquah-Sam and Salami (2014) make investments less risky and more attractive in that they allow savers to acquire assets and be able to sell them quickly and at lower costs if they need access to their savings or want to diversify their portfolios.

Therefore, liquidity of the Nigeria stock exchange promotes the development of the Nigeria stock market and enables it to contribute positively to economic growth. 58 Thus taking the results regarding stock market indicators together, the results highlight that in examining stock market development, various dimensions of stock market development need to be considered in exploring the impact of stock market development on economic growth. Further there is the need to consider the long-term relationship between stock market

development and economic growth and hence the cointegration and error correction model employed in the present study is a better method than the ordinary least squares regression method as popularly employed by previous research in examining stock market development and economic growth. While the finding of negative impact of stock market development as measured by market capitalization ratio, on economic growth appears not to be popular in the literature, our results find support from Acquah-sam and Salami (2004) that some studies have reported negative effects of capital markets on economic growth in some developing nations, despite its expected positive effect on growth and development. The present study however has successfully addressed the weakness of previous studies that suggest that stock market development in Nigeria boosts economic growth such as Aigbovo and Izekor (2015) which employed ordinary least squares regression which we view as an inappropriate methodology and therefore renders the findings by such studies invalid. As highlighted by Yartey and Adjasi (2007) policy options will have to be explored by the Nigeria government for promoting the development of the Nigeria stock market through all dimensions especially that of boosting its liquidity. It may well be the case that further financial liberalization reforms may need to be explored as past reforms appear to have had minimal effect on the development Nigeria stock market. Further it might be necessary for the Nigeria government to adopt policy options that will shield the Nigerian Stock market 59 from the adverse effects of global macroeconomic factors which might affect stock market development efforts.

Summary, Conclusion and Policy Recommendations

The current chapter concludes the research. This chapter summarizes the report, draws conclusions, and makes recommendations to the government based on the results. Suggestions for further research are also made to encourage more research.

Summary of Findings

The current study looks at Nigeria's stock market creation and economic growth from 1984 to 2015. To achieve the study's goals, the researchers used granger causality, cointegration, and an error correction model. The following are the study's findings:

1. There is no reverse causality found between stock market development metrics such as stock market capitalization ratio, turnover ratio, and total value of shares exchanged ratio and economic growth.
2. The results of the Augmented Dickey Fuller unit root test showed that the All-Share Index, Stock Market Capitalization Ratio, Turnover Ratio, and Economic Growth Ratio were all of order 1, while the Total Value of Shares Traded Ratio was of order zero.
3. Economic growth is affected by shifts in the all-share index in a constructive and important way.
4. Changes in the stock market capitalization ratio, as well as their lag, have a negative but minor effect on changes in economic growth.
5. The Johansen cointegration test showed that the All-Share Index, Stock Market Capitalization Ratio, Turnover Ratio, and Economic Growth all have four cointegrating relationships.
6. Improvements in lagged GDP have a positive and important effect on current-period economic development.

7. The effects of the Error Correction Model, as seen in Table 5, suggest that economic growth and the independent variables in our model have a long-term relationship.
8. The improvement in the turnover ratio has a positive but insignificant effect on changes in economic development, while the lag has a negative but insignificant impact.

Conclusion

The aim of this research was to investigate the development of Nigeria's stock market and economic growth from 1984 to 2015. The research investigated the relationship between stock market development indicators and economic growth, as well as the influence of stock market development on economic growth. Although causality was discovered to be one-way from economic growth to stock market development, stock market development was found to have a negative effect on economic growth when data was analyzed using cointegration and an error correction model. The results of the cointegration and error correction model show that the stock market development indicator of stock market size has a negative effect on Nigerian economic growth due to weak institutions and inefficient market participant activities, while improved liquidity as measured by turnover ratio has a positive but negligible impact on economic growth. If the establishment of the Nigerian stock exchange is to improve Nigeria's economic growth by making the stock exchange a major source of funds for businesses, more work must be done. The Nigerian government's policy options should aim to fix flaws in the stock market's operations, especially in terms of institution efficiency, quality and liquidity.

Policy Recommendations

Based on the findings of the present study, the following recommendations are made.

i. Asset Management Corporation of Nigeria (AMCON) / Ministry of Finance Incorporated interference by the federal government.
ii. More indigenous quotable companies should be encouraged to pursue listing by providing tax breaks, rebates, and other incentives.
iii. Stock broking companies should be encouraged to combine or be bought outright.
iv. The Securities and Exchange Commission's (SEC) manpower and processes should be improved to make the stock market more competitive and minimize volatile results. This should allow the organization to strengthen its capital market oversight role and foster growth improvement of its performance.
iv. Nigeria securities and Exchange Commission to facilitate the growth of the market, restore the confidence of stock market participants and safeguard the interest of shareholders by checking sharp practices of market operators, Improved quality of institutions which include regulatory quality, rule of law, and reduction in corruption to boost participation on the Nigeria stock exchange and thus promote competition which will promote stock market development.

Areas for Further Study

Future researchers can extend the current study in several ways now that it has been completed:

1. The study could investigate the effect of foreign direct investment on the Nigerian stock market's growth.
2. The analysis may be repeated to include a panel of Sub-Saharan African countries.

References

Abdullahi, M. S. Ghazali, P. L., Awang, Z. & Tahir, M. (2018). The effect of finance, infrastructure and training on the performance of small and medium scale enterprises (SMEs) in Nigeria, *International Journal of Business and Technopreneurship,* 5(3), 421 - 452.

Abereijo, O., Ilori, O. Taiwo, A. & Adegbite, A. (2017). Assessment of the capabilities for innovation by small and medium industry in Nigeria, *African Journal of Business Management*, 5(8), 209-217

Adepoju, I. B. (2019). Efficiency of railway transport as a sustainable mode of transport in Nigeria, *Electronic Research Journal of Social Sciences and Humanities*, 1(1), 103-126

Adikwe, P. K. (2018). Project finance for small and medium scale enterprises (SMEs) in Nigeria, *International Multidisciplinary Journal*, 6(1), 1994-9057

Agwu, M. O. & Imeti, C. I. (2019). Issues, challenges and prospects of small and medium scale enterprises (SMEs) in Port-Harcourt city, Nigeria, *European Journal of Sustainable Development*, 3(1), 101 - 114

Akin, I., Ikpefan, O. A., & Isibor, A. A. (2019). Credit to the private sector and economic growth in the present technological world: Empirical evidence from Nigeria, *International Journal of Civil Engineering and Technology*, 10(2), 2329-2347

Akinlemi, O. A. (2018). Effect of infrastructural facilities in SMEs growth in Nigeria, *International Journal of Innovative Research and Development*, 7(6), 2278 - 3211

Anderson, S. J., Chandy, R. & Zia, B. (2020). Pathways to profits: Identifying separate channels of small firm growth through business training, *Policy Research Working Paper* 7774

Beyene, A. (2018). Enhancing the competitiveness and productivity of small and medium scale enterprises (SMEs) in Africa: An analysis of differential roles of national governments through improved support services, *Africa Development*, 27(3), 130-156.

Bhattacherjee, A., (2017). *Social science research: Principles, methods, and practices*, New York, Rajah Publishers

Bitrut, F. K. & Ahmed, I. K. (2019). Nature and relevance of small and medium scale enterprises in the economic development of Nigeria, *International Journal of Economic Development Research and Investment*, 2(2), 10 - 19

Central Bank of Nigeria (CBN) (2018). *Small and medium industries equity investment scheme (SMIEIS), Seminar series No. 4: A paper delivered at the CBN training centre*, Lagos: Retrieved from https://www.cbn.gov.ng/Out/Publications/Guidelines/Dfd/2004/SMIEIS.PDF

Central Bank of Nigeria (CBN) (2019). Highway maintenance in Nigeria: Lessons from other countries, *Research Department Occasional Paper,* 27

Fulmer, J. (2019). *Infrastructure, PEI Infrastructure Investor* (July/ August), 30-32.

Kessides, C. (2018). *The contributions of infrastructure to economic development: A review of experience and policy implications*, USA, World Bank Publications.

Kinutia, B. (2017). *The effect of road infrastructural improvement on performance of the Matatu industry in Kenya, A Case Study of Thika Supper-Highway,* Retrieved from http://ir-library.ku.ac.ke

Kyunga, F. K. (2017). Infrastructural development and growth of small and micro enterprises in the Nairobi Section of Thinka Road, Kenya, *Journal of Management Review*, 10(1), 28-35

Mano, Y., A. & Iddrisu, A. A. (2018). How can micro and small enterprises in Sub-Saharan Africa become more productive? The impacts of experimental basic managerial training, *World Development*, 40(3), 458 - 468

Mohammed, A. M. & Bashir, D. S. (2017). Developing Nigeria through small scale enterprises, *Journal of Development Research*, 11(2), 1596 - 8303

Nkechi, A., Emeh, E. J., & Okechukwu, U. F. (2019). Entrepreneurship development and employment generation in Nigeria: Problem and prospects. *Journal of Education and General Studies,* 1(4), 88-102.

Obokoh, L. O. & Goldman, G., (2018). Infrastructure deficiency and the performance of small and micro enterprises in Nigeria's liberalized economy, *Acts Commercial,* 16(1), 339- 348

Oduyoye, O. O., Adebola, S. A. & Binuyo, A. O. (2018). Empirical study of infrastructure support and small business growth in Ogun State, Nigeria. *Journal of Research and Development,* 1(1), 14 - 34.

Ogechukwu, D., Oboreh, J. S., Umukoro, F., & Uche, A. V. (2016). SME in Nigeria: The marketing interface, *Global Journal of Business and Research Marketing*. 13(9), 0975 - 0983

Okunlola, F. A., Babajide, A., & Isibor, A. A. (2020). Empowering women through micro finance: Empirical evidence from Ibadan, Oyo state, Nigeria. *Academy of Entrepreneurship Journal*, 26(1), 1-12

Omankhanlen, A. E., Ilori, N., & Isibor, A. A. (2021). Monetary policies and the achievement of Bank Profit objective, *Journal of Central Banking Theory and Practice,* 2 (1), 201 - 220

Osaba, A. M. (2018). Towards the development of small-scale industries in Nigeria, *Nigerian Institute of Social and Economic Research*, 10(5), 12 - 19

Pelei, T. (2015). Accessing the impact of infrastructure on economic growth and global competitiveness. *Procedia Economics and Finance,* 23(10), 168-175.

Appendix

Table A7: Eviews Error Correction Model Regression Results Output

Dependent Variable:D(LGDP)
Method: Least Squares
Date: 05/21/17 Time:14:33
Sample (adjusted) :19862015
Included observations: 30 after adjustments

Variable	Coefficient	Std.Error	t-Statistic	Prob.
C	-0.035285	0.018622	-1.894784	0.0713
D(ASI)	3.46E-06	1.67E-06	2.067601	0.0506
D(MCR)	-0.396878	0.223854	-1.772937	0.0901
D(TOVR)	0.072425	0.248174	0.291829	0.7732
D(MCR(-1))	-0.186074	0.209760	-0.887084	0.3846
D(TOVR(-1))	-0.234826	0.213251	-1.101171	0.2827
D(LGDP(-1))	1.681983	0.352644	4.769639	0.0001
ECM(-1)	-1.676944	0.435201	-3.853260	0.0009
R-squared	0.537464	Mean dependent var		0.050983
Adjusted R-squared	0.390293	S.D. dependent var		0.034817
S.E. of regression	0.027187	Akaike info criterion		-4.149009
Sum squared resid	0.016260	Schwarz criterion		-3.775356
Log likelihood	70.23513	Hannan-Quinn criter.		-4.029474
F-statistic	3.651975	Durbin-Watson stat		1.870064
Prob(F-statistic)	0.009152			