

AN ASSESSMENT OF THE IMPACT OF MARKET CAPITALIZATION ON THE DEVELOPMENT OF THE NIGERIAN ECONOMY (1985 -2017)

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Article History

Received : 23 December 2020
Revised : 30 December 2020
Accepted : 19 January 2021
Published : 3 May 2021

Key words

Economic growth, Gross fixed capital formation, Market capitalization, Nigeria, Total transactions on the stock exchange.

ABSTRACT: This study is aimed at assessing the effect of the market capitalization on the Nigerian economy spanning the period of 1985-2017. Real GDP is expressed as a function of Market Capitalization (MCAP), Gross Fixed Capital Formation (GFCF), and Total Transaction on the Stock Exchange (TNSE) using a regression model. In order to test the stationary property of the time series data, the ADF statistics was employed, and all the variables were stationary at first difference. Co-integration test confirmed the existence of long-run relationship between the explanatory variables and the dependent variable, Vector Autoregressive (VAR), and Vector Error Correction Model (VECM) were estimated. The findings confirmed that there is positive relationship between market capitalization and economic growth and also direct relationship exist between gross fixed capital formation and economic growth. While, inverse relationship exists between GDP and total transaction of the Nigerian Stock Exchange Market. The study concludes that capital market has shown substantial growth in new issues volume in recent years; it is substantially well-supervised by the SEC and has a well-organized management structure thereby contributing to the growth of the Nigerian economy though the total transaction of the Nigerian stock exchange needs to be enhanced through trade liberalization in the capital market. The study recommends that it is imperative for the countries to attract foreign portfolio investment from other country in order to increase the total transaction of the stock exchange through foreign funds; such fund would enhance the financing of developmental projects and businesses in the country.

1. INTRODUCTION

The economic growth and development of a nation relies on how functional the various sectors of the economic are, especially the real sectors of the economy. The real sectors include the oil sector and the non-oil sector (manufacturing, solid minerals, agriculture and service sectors) (Werigbelegha & Ogiriki, 2015). These sectors would perform effectively if there is adequate monitoring and financing. The non-oil sector performance in the Nigeria had been unsatisfactory as evidenced in the dismal performance of the manufacturing sub-sector which has been attributed to some factors, like low level of technology; high rate of inflation; low investment; capacity under-utilization; poor and decaying infrastructures; hostile investment climate; high cost of production; policy non-implementation and reversals; corruption, weak institutions; poor domestic linkages; lack of political will to really industrialized the Nigerian economy; general macroeconomic instability and lack of finance (capital) to build up production capacity in the various industries (Israel, 2015).

The effort in providing solution to the problem of finance makes the role of capital market more imperative in this regard. Long-term funding which is the bane of the real sector could be achieved through an active capital market that mobilizes long term funds for small and medium scale industries development in Nigeria (Kwode, 2015). It is very clear that the dearth of long-term capital makes the capital market indispensable in developing countries like Nigeria.

Capital market is an integral aspect of the financial system that provides an efficient delivery mechanism for management to mobilize, allocates and distribute long-term funds. It is the interaction of financial institutions and infrastructure that mobilize and allocate long-term funds for the economy of a nation. Israel (2015) stressed that capital market is a financial market which specializes in the mobilization of long-term finance for industries and commerce.

Dalvi and Baghi (2014) opined that capital market provides an avenue for households, firms and government, willing to invest more than they can bid for the finance of other spending units who have surplus funds, which are necessary and important for economic growth and development. Capital markets are complex institutions and mechanisms through which long-term funds(capital) with maturity of 5 years or more are pooled and made available to individual, businesses, institutions and governments, and outstanding instruments are transferred.

Capital market perform two most important functions of mobilizing funds from surplus sources and makes it available to deficit sources, thereby matching individual saver's needs with firms requiring funds, and the resulting capital accumulation leads to

increase in investment and economic growth and development (Ibi *et al.* 2015). Since the expansion of firms businesses and building of new ones requires huge capital in form of importation of machineries, expertise and technology, it is the capital market that provide the needed capital in form of issuance of equity capital for such long-term investment needs.

Given the undeveloped and shallow nature of capital markets in developing countries, it is debatable whether capital markets in developing countries in general and capital market in Nigeria has led to economic growth. The role of the capital market in economic growth of Nigeria has continued to generate a lot of arguments amongst policy makers, stakeholders, and economies. Florence *et al.* (2017) and Olanrewaju *et al.* (2015) maintained that the Nigerian Capital Market had performed below expectation as a provider of cheap and stable funds for Nigeria's industrial sector.

The capital market performance and its contribution to the growth and development of the real sectors which are the engine room of economic growth still fall below the expectation of some economies like United Kingdom, United States of America, Taiwan, South Africa and Malaysia (Ibi *et al.*, 2015). It is an established fact that the growth and development of the Nigerian economy relies to some extent on the growth and development of the real sectors and its long-term funding through the capital market needs a lot of attention from the government and stakeholders.

Dalvi, and Baghi, E. (2014) states that capital market gives financial intermediation supports for investment process by mobilizing household and foreign savings for investment. It ensures that funds are directed for productive use, providing liquidity and spreading risk so that companies can operate effectively. Thus, the national income of the country would further increase if there is corporate finance through the mobilization of long term savings for financing long-term investments, encouragement of broader ownership of firms; provision of risk capital (equity) to entrepreneurs; and provision of other sources of finance apart from foreign aids and loan, and taxation to finance public projects; the improvement of efficiency of resource allocation through competitive pricing mechanisms. In the light of the above, this study investigates the assessment of the capital market on the development of the Nigerian economy spanning the period of post-structural adjustment era (1985-2017).

1.2. Statement of the Problem

The present problems of hunger, poverty and unemployment have undermined the capacity of the Nigerian economy and the capital market is seen as alternative and a mechanism for intervention to settle these long-term problems of the economy. Unfortunately, small scale enterprises, most especially the manufacturing firms have

not been able to propel economic growth and development which are capable of reducing the effect of poverty, hunger, unemployment, and low standard of living in the economy because of lack of funds. Thus, majority of these firms do not have the legal requirements to source finance from the capital market; because of the inability of majority of the small scale enterprises to registered with Corporate Affairs Commission nor have the status of a limited liability company. Hence, the source of financing such businesses is limited to borrowing from friends and families, cooperative society, personal savings, microfinance banks. Such funds are not enough to realize the necessary growth and development needed in the industrial and real sector of the economy in Nigeria.

The issues that goes against the growth and development of the Nigerian economy are difficult and unfavorable operating climate as a result of deficiency in infrastructure in the nation; inadequate funding, low capacity utilization of industrialization capacity, irregular supply of power, lack of consistency in policies of government, irregular supply of industrial fuels which contributes in the epileptic operation of local refineries; high cost of alternative power supply to industries resulting in the locally made goods becoming un-competitiveness in the market; high cost of finance and the inability of the firms to access long-term loan to support and carryout long-term investment and perennial security challenges, confronting the country.

Nevertheless, the internal features of the real sectors of the economy too have also interacted with some economic variables to undermine the capacity of the economy. Issues like inadequate equity capital, poor management practice, low level of entrepreneurial skills, and lack of information. From these challenges, the capital market is only effective in proffering solution to the problem of finance and long-term loan facing the sector.

The Nigerian capital market which ought to provide cheap and long-term funds for the sector is unable to effectively and efficiently discharge its main function of mobilizing long-term finance for the real sectors. This is because, the Nigerian capital market is relatively shallow and small compare to the economy it is expected to serve, uncompetitive and unsophisticated as a primary source of long-term funds to the firms. On this premise, it becomes important to understand how the instrument of capital market have been effective in accelerating economic growth and development in Nigeria.

1.3. Objectives of the Study

The main objective of this study is the assessment of the impact of the capital market on the growth of Nigeria economy. The specific objectives are:

- i. To assess the impact of total transaction of the Nigerian stock exchange on the promotion of economic growth in Nigeria.
- ii. To assess the impact of market capitalization on the promotion of economic growth in Nigeria.
- iii. To assess the impact of Gross Fixed Capital Formation on the promotion of economic growth in Nigeria

1.4. Research Questions

The following research questions guide this study:

- i. What is the impact of total transaction of the Nigerian stock exchange on the promotion of economic growth in Nigeria?
- ii. What is the impact of market capitalization on the promotion of economic growth in Nigerian?
- iii. What is the impact of Gross Fixed Capital Formation on the promotion of economic growth in Nigeria?

1.5. Scope and Limitation of the Study

The study assessed the impact of the capital market on the promotion of economic growth of Nigeria covering the period of 1985 to 2017. The study captures Market Capitalization, Gross Fixed Capital Formation, total transaction of the Nigerian Stock Exchange Market and their impact are examined on economic growth proxy by Gross Domestic Product. The study spans the Post-Structural Adjustment period. This is because major reforms in the capital market took place during the period between 1985 to 2017.

2. THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

2.1. Empirical Review

There have been an increasing debates and controversies on the role been played by the capital market on the promotion of economic growth. Obamiro (2005) in Lawal and Okunola (2012) investigated the role of the stock market in enhancing economic growth in Nigeria. The study found out that there is a significantly positive impact of stock market on the Nigerian economic growth. The study concludes that for the economy to grow, government should create a level playing ground to guaranty the fair operation and efficiency of the stock market.

Lawal and Okunola (2012) examined the link between stock market operation, stock prices and the Nigerian economic growth. The study found out that stock prices

has a positive and significant impact on money supply, GDP, market capitalization and volume of transaction on the Nigerian stock exchange, and concluded that stock market operations and stock prices had the ability to enhance economic growth. Therefore, the Nigerian stock exchange and central bank of Nigerian should work hand in hand with the commercial banks in Nigerian to efficiently and effectively raised investment capital investible from both the private and public sector, influence private savings and increasing social marginal productivity of capital.

Abu (2009), try to assess the performance of stock market development in raising Nigerian economic, by using the error correction method. The findings reveals that stock market development enhances the economic growth of Nigeria. The study recommends that barriers militating against the development of stock market, like legal, tax, regulatory barriers, adequate infrastructural development to create enabling atmosphere for business to thrive and grow, employment policies to improve the productivity and efficiency of companies, and encouragement of the Nigerian Securities and Exchange Commission to direct the growth of the stock market to the part of success, bring back the confidence of stock market participants and stakeholders, protect the interest of shareholders by checking sharp practices of market operators.

Ewah *et al.* (2009) examine the effect of capital market efficiency on enhancing Nigerian economic growth. The study used time series data on interest rate, total market transaction, money supply, market capitalization, and government development stock from 1961-2004. Ordinary Least Square multiple regression estimation method was used. The study discovers that the Nigerian capital market has the what it takes to induce growth in the economy, but its contribution to the economic growth of Nigeria is minimal because of low absorptive capacity, misappropriation and illiquidity of funds, and low market capitalization.

Ologunde *et al.* (2006), Look at the link between interest rate and stock market capitalization rate. The study used OLS estimation method. The findings revealed that current interest rate has a significant positive influence on the capitalization of the stock market. In addition, government development stock rate has a negative influence on the capitalization of stock market. Current interest rate has a negative influence on government development stock rate. The study findings seems to take interest rate as the lending rate. If deposit rate increases, theoretically, investors will switch their capital from share market to banks. This will have a negative impact on stock prices.

Ibi *et al.* (2015) assess the relationships between capital market and the development of Nigerian industrial sector. Annual time series data spanning the period from 1980 to 2012 was used. The study used descriptive and analytical methodology in its investigation. The descriptive methods were used to analyze trend performances of the

variables. The analytical methodology employed modern econometric techniques such as the unit root test, co-integration test, granger causality test and the error correction mechanism (ECM) in the estimation of the relationships between the variables. The results of the granger causality test revealed that there is a bi-directional relationship between industrial output and market capitalization, and between industrial output and number of deals, but a unidirectional causality relationship from industrial sector development to value of transaction. The results of the co-integration test showed that there existed a long-run equilibrium link among the variables. The results of the short-run dynamics found out that capital market has a positive and significant impact on industrial output in Nigeria through market capitalization and number of deals. However, value of transaction has negative and significant impact on industrial output in Nigeria during the evaluation period. It was also discovered that real gross domestic product has a positive and significant impact on industrial output in Nigeria, while exchange rate and gross domestic investment have a negative and significant relationship with industrial output in Nigeria.

Ekechoba *et al.* (2013) looks at the impact of capital market on the Nigerian economic growth under a democratic rule. Despite the belief that democracy promotes investments friendly environment, the Nigerian capital market did not lived up to expectation in terms of its contribution to economic growth. The study used time series data, multivariate regression technique to analyze the data. The findings indicates that total market capitalization and all share indexes have a great and positive influence on the growth of manufacturing industries, the total value of stock has a negative effect on the growth of manufacturing industries.

Edame and Okoro (2013) opined that the capital market in Nigeria has been vividly transformation over the years. This is shown in the level of increase in participation of the public and private investors at the stock exchange market and in different public issues of companies that are quoted. The emerging market has embraced and attracted the interest and attention of interested international investors, and therefore, result to increase in capital inflow. The overall market capitalization had raising from 1,698.1 million naira in 1980 to 7030.8 billion naira in 2009, hence indicating an improvement within the period. Transaction at the floor of NSE has increased to a total of 685716.2 million naira in 2009 compared to the previous value of 16.6m recorded in 1970. The results gathered shows that, capital market has a significant positive relationship with the performance of manufacturing companies in Nigeria. The model of the study of capital market captured the following variables, number of deals, market capitalization, and value of transactions to be significant and positive in the promotion of economic growth in Nigeria.

Zainab (2015) conducted a study with the aim of investigating the impact of capitalization of the capital market on the economic growth of Nigerian. The study used time series data for the period of 12 years from 2001 to 2012, which was gathered from different issues of financial statement and Annual Report of the Central Bank of Nigeria statistical bulletin annual reports and statements of Accounts of Nigeria Stock Exchange. A multi regression analysis was conducted in computing the relationships between the capitalization of the Nigerian capital market and economic growth. The results indicated that, there was a unidirectional causal relationship between capitalization of the stock market and economic growth, at 5 percent significant level. The study concludes that the Nigerian capital market needs to create more investors' confidence, in terms of sustainability, accountability and transparency, and increase market capitalization necessary for sustainable economic growth in the nation.

Oke (2013) considered the impact of the activities of the capital market on the development of oil industries in Nigeria. The study used annual time series data spanning the period of 1999 to 2009 under the framework of cointegration methods and error correction mechanism. The result of the cointegration test indicates that there is an equilibrium long-run relationship among the variables in the model. The results of the empirical estimation showed that stock market capitalization and stock market prices have a significant positive impact on the development of oil and gas industry in Nigeria in the short-run, and a negative effect on the sector in the long-run. Victor *et al.* (2013) carried out an investigation into the impact of capital market on industrial sector development in Nigeria, using data from 1980 to 2008 and descriptive statistic methods was employed. The result discovered that capital market has a significantly positive relationship with industrial sector development.

Taiwo *et al.* (2016) examined the contribution of capital market to the Nigerian economic growth. An error correction model was estimated for economic growth in Nigeria, using Vector Error Correction method on an annual time series data for a period of 1981 to 2014. The data were subjected to Phillip Perron Unit Root Test at level and first difference. The result shows that, at one percent significance level, all the variables were stationary at first differencing. The results of the normalized cointegrated series indicated that total value of listed securities, labor force participation rate, accumulated savings, market capitalization rate and capital formation are positively and significant macroeconomic determinants factors of economic growth in Nigeria. The paper concluded that, for the capital market to reach its full potentials, a level playing ground must be created to promoted and encourage investment opportunities for both local and international investors, since the stock market operates in a macroeconomic environment.

Duke and Nkamare (2015) tried in investigating the performance of the Nigeria capital market on the economic growth of Nigeria from 1986 to 2005. Secondary source of data was used for data collection. A multiple regression analysis using ordinary least squares estimation technique was employed to investigate the composite impact of capital market indices such as equities, industrial stocks, and government stocks on the development of the economy for the past twenty years. The multiple correlation coefficients which measured the strength of the relationship between capital market and economic development, shows a significant positive result, opining that there was a direct and perfect relationship among the variables. The findings further shows that none of the predictor variables, individually predicted Gross Domestic Product. Despite the ample opportunities created by the ongoing reforms and the booming economy, the capital market in Nigeria has performed below it expectation. Ironical, Nwamuo (2018) discovered capital market to significantly and positively affect economic growth.

The literature review carried out above indicates that none of the study has looked at the combination of the impact of Gross fixed capital formation, Market capitalization, and Total transaction on the stock exchange as an independent variable on economic growth in Nigeria. Moreover, the period of time within which this study is carried out is 1985-2017. Moreover, most of the data used for analysis on some of the variable in other researches does not cover the periods of this study.

Thus, the hypotheses are formulated as follows:

H1: Gross fixed capital formation positively affect economic development

H2: Market capitalization positively affect economic development

H3: Total transaction in the Nigerian Stock Exchange positively affect economic development

3. RESEARCH METHOD

3.1. Research Design

The research is devise to investigate the assessment of capital market on the Nigerian economy. Quantitative research design will be embraced in the study through the use of time series data. This includes a descriptive analysis and econometric analysis of secondary data which will be used in order to establish the findings of the study and present a logical flow of the investigation. This approach is adopted because it will enable the study to obtain data-driven and evidence-based findings; it will also enable the research objectives of this study to be achieved. This research design is also selected because it enables impact analysis to be undertaken among variables in a study. The

study used total market capitalization (TMC), Gross Fixed Capital Formation (GFCF) and total transaction of the Nigerian Stock Exchange (TNSE) to measure the operations of capital market while real GDP is used to measure economic growth.

3.2. Source of Data

The data for this study are extracted from the statistical bulletin of the central bank of Nigeria (CBN, 2016; WDI, 2017). The data sample size covers the 32 years from 1985 – 2017. The choice of the number of years was intended to cover the period of structural adjustment and post structural Adjustment program era using yearly time series data.

3.3. Model Specification

Base on the endogenous growth theory and the existing literatures on related research, this study modified the model used by (Riman, 2008) in the study of stock market performance and economic growth in Nigeria. The model is stated as follows:

$$\text{GDP} = f(\text{Mcap}, \text{Mvol}) \quad (1)$$

The mathematical model is given below:

$$\text{GDP} = a_0 + a_1 \text{Mcap} + a_2 \text{MVOL} + U$$

The model is therefore modified with the inclusion of Gross Fixed Capital Formation as capital which growth theorists postulated to enhance growth. The model becomes

$$\text{GDP} = a_0 + a_1 \text{Mcap} + a_2 \text{MVOL} + a_3 \text{GFCF} + U$$

Where

b_0 : Intercept

b_1, b_2 and b_3 are the parameter estimates

GDP = Gross Domestic Product

Mcap = Market capitalization

Mvol = Total Transaction at the Nigerian Stock Exchange

GFCF = Gross Fixed Capital Formation

U: Error Term

3.3.1. Statistical Criteria Used for the Study

The study used the use of Ordinary Least Square estimation methods to analyze the data. The adoption of Ordinary Least Square in this study follows the example of

Ologunde, Elumilade and Asaolu, 2006; Zainab, 2015). This criterion determines the statistical significance of the individual parameters of the model.

T- test: The T-test is used to identify the truth or falsification of a null hypothesis, the decision rule under is based on the computed value of t-statistics from the data. Using a significant level of 0.05 the analysis and interpretation of T-calculated and T-tabulated will be based on the decision rule described below:

When $T_{\text{calculated}} > T_{\text{tabulated}}$, Accept H_1 Reject H_0
When $T_{\text{calculated}} < T_{\text{tabulated}}$, Accept H_0

3.3.2. Testing the Overall Significance (F-Test)

Testing the overall significance was used due to the existence of more than one explanatory variable. The F-test measures the model statistical significance of the impact of the explanatory variables included in the model.

4. DATA ANALYSIS AND INTERPRETATION

4.1. Introduction

This chapter presents the discussions on the obtained results on the topic, “The Assessment of Capital Market on the Nigerian Economy” for the yearly periods of 1985 to 2017. The dependent variable is Real Gross Domestic Product (RGDP) while the independent variables are Market Capitalization (MCAP), Total Transaction on the Stock Exchange (TNSE) and Gross Fixed Capital Formation (GFCF). The statistical package used was E-Views 9. The chapter includes: trend analysis, descriptive statistics, correlation analysis and vector error correction model (VECM).

4.2. Trend Analysis and Descriptive Statistics

This aspect presents the descriptive statistics and graphical representation of each of the variables used in the study. It indicates the number of observation, minimum, maximum, average, standard deviations, skewness, kurtosis and Jarque-Bera statistics of the variables used as presented in table 4.1 below.

Table 4.1: Descriptive Analysis of the variables considered in the study

	<i>RGDP</i>	<i>MKT_CAP</i>	<i>TNSE</i>	<i>GFCF</i>
Mean	34,966,126	5,128,193.00	15,839.78	3,489.10
Maximum	69,023,930	20,989,474.00	57,990.20	17,071.56
Minimum	14,953,913	6,600.00	127.30	8.799

contd. table 4.1

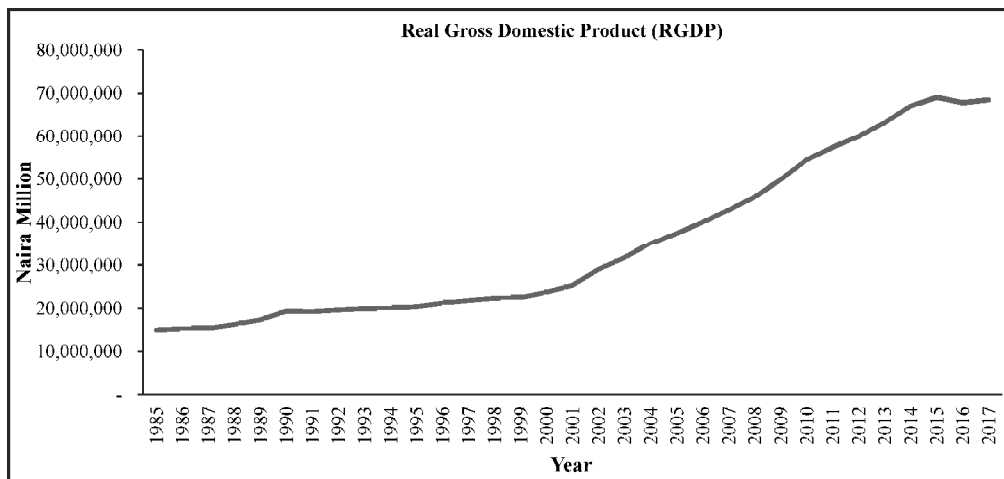
	RGDP	MKT_CAP	TNSE	GFCF
Std. Dev.	18,828,629	6,938,826.0	15234.38	5,484.03
Skewness	0.668532	1.026396	0.766248	1.363016
Kurtosis	1.927269	2.509035	2.853877	3.234444
Jarque-Bera	4.040429	6.125632	3.258606	10.29355
Probability	0.132627	0.046756	0.196066	0.005818
Observations	33	33	33	33

Source: E-VIEWS Result and Authors' Computation 2019

4.2.1. Trend Analysis and Descriptive Statistics of Real Gross Domestic Product (RGDP)

Figure 4.1 depicts the trend analysis of real gross domestic product in Nigeria for the yearly periods of 1985 to 2017. It shows that economic growth has been on the rising trend over the study period. RGDP has a minimum value of ₦ 14,953.91 billion and maximum value of ₦ 69,023.93 billion with a mean and standard deviation of ₦ 34,966.17 billion and ₦ 18,828.63 respectively. The skewness shows that the series is positively skewed while the kurtosis shows that RGDP is leptokurtic. The Jarque-Berra statistics further validates that the variable is normally distributed.

Figure 4.1: Graphical Representation of Real Gross Domestic Product (RGDP)

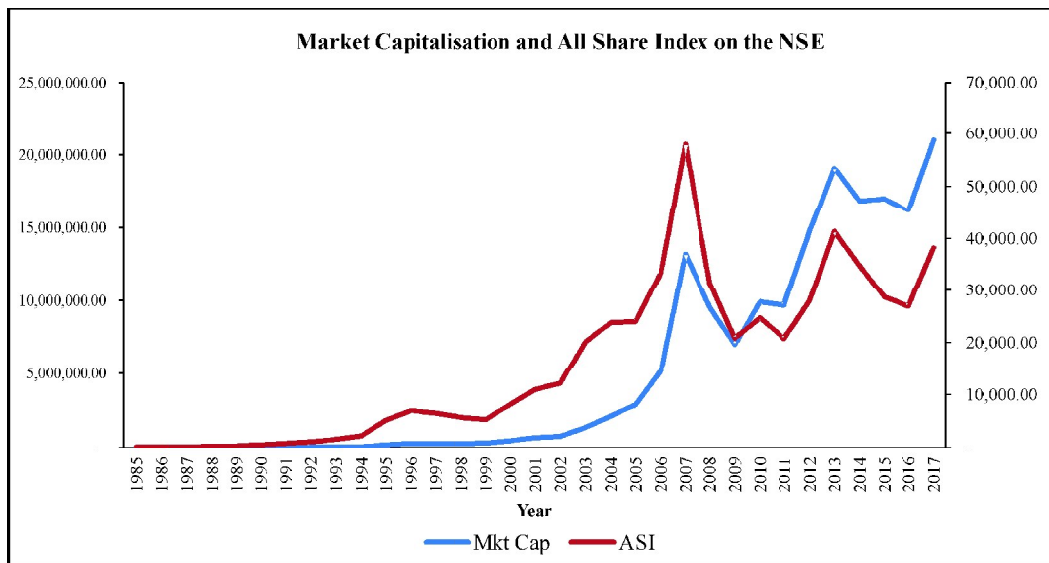


4.2.2. Trend Analysis and Descriptive Statistics of Market Capitalisation and All Share Index in Nigeria (MCAP)

The trend analysis of Nigerian market capitalization and all share index for the yearly periods of 1985 to 2017 is depicted in figure 4.2. It reveals a sharp rise in the transactions

of the Nigerian Stock Exchange to its peak in 2007 which stood at ₦ 13,181.69 billion and 57,990.20 points for market capitalization and all share index respectively. Market capitalization and All Share index averaged ₦ 5,128.19 billion and 15,839.78 points over the entire period of study, with its lowest ebb with value standing at 67. The skewness shows that the series is positively skewed while the kurtosis shows that it is leptokurtic.

Figure 4.2: Graphical Representation of Market Capitalisation (MCAP) and All Share Index (ASI) of the Nigerian Stock Exchange

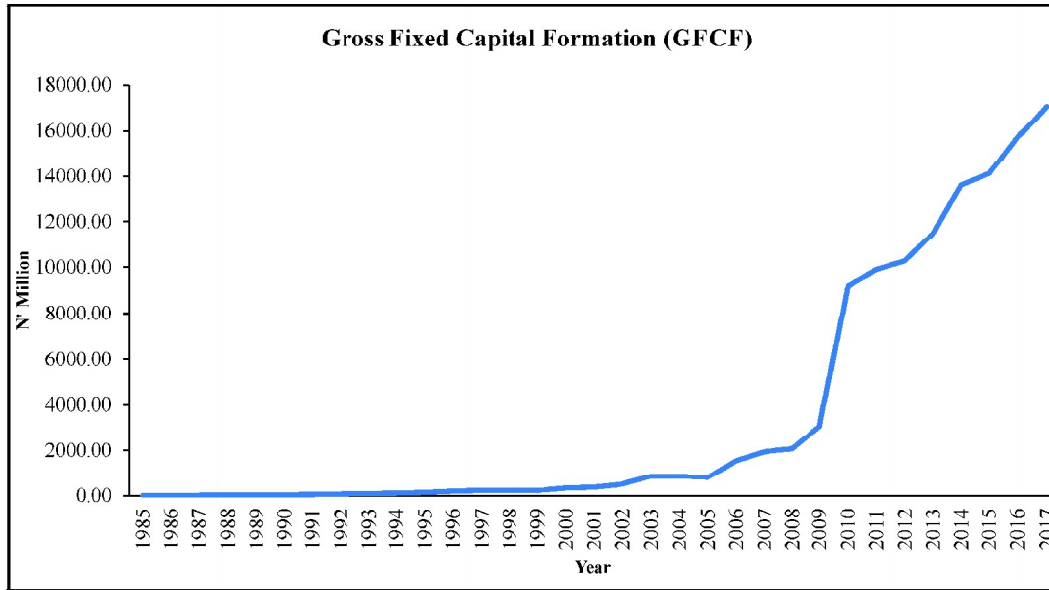


4.2.3. Trend Analysis and Descriptive Statistics of Gross Fixed Capital Formation in Nigeria (GFCF)

Figure 4.3 reveals the trend analysis of Nigeria's gross fixed capital formation for the periods of 1985 to 2017. It shows a consistent fluctuation in this variable over the sampled period. The country's GFCF was averaged at ₦ 3,489.10 million over the entire period of study, with its peak value at ₦ 17,071.56 million and its lowest ebb with value standing at ₦ 8.799 million. The skewness shows that the series is positively skewed while the kurtosis shows that it is leptokurtic. The Jarque-Berra statistics further validates that the variable is not normally distributed which is reflected by its probability value.

4.3. Correlation Analysis

This section presents the results of preliminary correlation analyses among variables. This is to determine and ascertain when there are bivariate relationships between each

Figure 4.3: Graphical Representation of Gross Fixed Capital Formation (GFCF)

pair of variables considered in this study. The findings of the correlation analysis of variables under consideration is presented in Table 4.2. The finding indicates that there is a significant positive relationship between market capitalization and economic growth in Nigeria ($r=0.95$) which is statistically significant at 1%. Also, the relationship between total number of transactions in the NSE and economic growth ($r=0.83$). In the same vein, the relationship between gross fixed capital formation (GFCF) and GDP growth ($r=0.92$) was found to be positive and statistically significant at 1%.

Table 4.2: Correlation Result of the Relationship among variables

Variables	RGDP	MCAP	TNSE	GFCF
RGDP	1.00			
MCAP	0.9538***	1.00		
TNSE	0.8265***	0.8386***	1.00	
GFCF	0.9236***	0.9282***	0.6325***	1.00

Note: “***”, “**” and “*” represents significance at 1%, 5% and 10% respectively

Source: E-Views Result and Authors’ Computation 2019

4.4. Unit Root / Stationary Test

The type of analysis in this study requires that the time series properties of the variables are to be tested. The study tests the variables for the time series properties of stationarity

using the Augmented Dickey-Fuller (ADF) test. It is always important for time series to be stationary (that is having constant mean and variance over time) so as to be of practical value because if it is non-stationary, each set of time series is only useful for a particular period and it will be impossible to generalize it to other time periods. A time series that is not stationary is known as a series that contains unit root and it can be made stationary by differencing or detrending.

The result of the unit root tests based on the Augmented Dickey Fuller (ADF) test is presented in Table 4.3. The table reports the no unit root test results for the series in their level and first difference forms looking at the constant and trend option. The ADF results evidently show that the null hypotheses that the RP and RF have unit roots can be rejected at level within the 1% and 10% conventional levels of significance. Consequently, the rejection of null hypothesis for the aforementioned series shows that they are integrated of order zero (I(0)).

Table 4.3: Stationary Test

<i>Variable</i>	<i>CONSTANT</i>		<i>Order of Integration</i>
	<i>@Level</i>	<i>@ First Diff.</i>	
Real Gross Domestic Product (RGDP)	-1.9073 (0.6267)	-5.1650*** (0.0000)	I(1)
Market Capitalization (MCAP)	-1.6560 (0.7472)	-6.4599*** (0.0001)	I(1)
Total transaction of Stock Exchange (TNSE)	-1.3402 (0.5985)	-5.5331*** (0.0005)	I(1)
Gross Fixed Capital Formation (GFCF)	-0.1211 (0.9922)	-5.3212*** (0.008)	I(1)

Source: Author's Computation 2019.

4.5. Cointegration test

Table 4.4 presents cointegration test result on the assessment of capital market and economic growth. The test statistic shows that the hypothesis of no co-integration (Ho) among the variables can be rejected. It further indicates that there is at most 1 cointegrating relation in our model. One cointegrating relation is enough to prove that long-run interconnectedness exists in the model. This shows that the study can proceed to estimating VECM model.

Table 4.4: Cointegration Test Result

<i>Trace Statistics</i>					<i>Maximum Eigen – Value Statistics</i>				
<i>Hypothesized No. of CE(s)</i>	<i>Eigen- value</i>	<i>Trace Statistic</i>	<i>0.05 Critical Value</i>	<i>Prob.**</i>	<i>Hypothesized No. of CE(s)</i>	<i>Eigen - value</i>	<i>Max- Eigen Statistic</i>	<i>0.05 Critical Value</i>	<i>Prob.**</i>
None *	0.8649	102.6452	47.8561	0.0000	None *	0.8649	62.0649	27.5843	0.0000
At most 1 *	0.5658	40.5803	29.7971	0.0020	At most 1 *	0.5658	25.8621	21.1316	0.0100
At most 2	0.2863	14.7182	15.4947	0.0652	At most 2	0.2863	10.4555	14.2646	0.1837
At most 3 *	0.1285	4.2627	3.84147	0.0389	At most 3 *	0.1285	4.2627	3.8415	0.0389

Trace test indicates 2 cointegratingeqn(s) at the 0.05 level

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

* denotes rejection of the hypothesis at the 0.05 level

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

Source: Authors' Computation 2019.

4.6. LAG SELECTION STRUCTURE

Table 4.5 presents lag order selection findings on the variables in this study. The selection criteria of the lag length of the VAR begins with the specification of maximum lag of 2. An asterisk shows the chosen lag from each column of the criterion statistic. Based on the sequential modified LR test statistic (LR), Final prediction error (FPE), Akaike information criterion (AIC) a Schwarz information criterion (SC) and Hannan-Quinn information criterion (HQ) we considered the lag length of 2 as the optimal lag length.

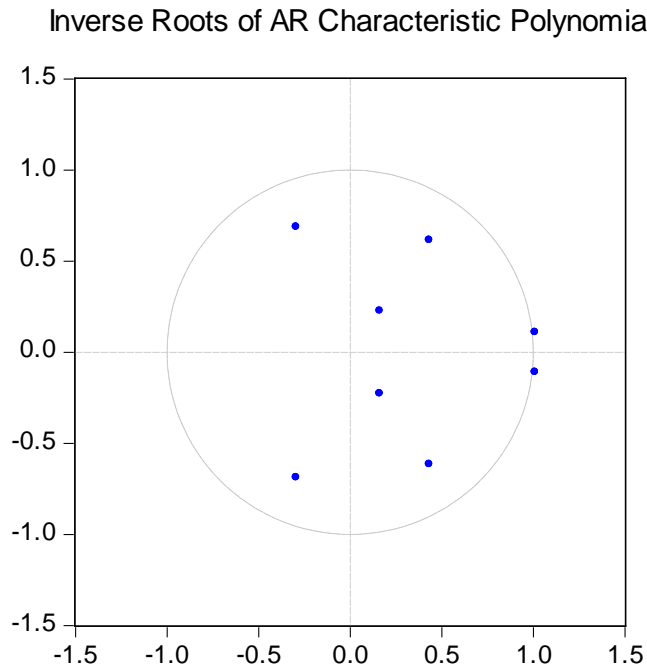
Table 4.4: Lag Order Selection Result

<i>Lag</i>	<i>LogL</i>	<i>LR</i>	<i>FPE</i>	<i>AIC</i>	<i>SC</i>	<i>HQ</i>
0	-1640.68	NA	1.42e+41	106.1082	106.2933	106.1686
1	-1497.13	240.7884	3.83e+37	97.87940	98.80456	98.18098
2	-1468.97	39.97256*	1.85e+37*	97.09473*	98.76000*	97.63757*

Source: Authors' Computation 2019.

4.7. VAR DIAGNOSTIC CHECK

The VAR specification is derived from the theoretical model. The test on stability situation for the VAR shows that no root lies outside the unit circle. The graphical output of the stability situation as shown in Figure 4.4below. This indicates that all the inverse roots of the AR feature polynomials lie around the unit circle.

Figure 4.4.2: Inverse Roots of AR Characteristics Polynomial

Based on these observations the study opined that the VECM models satisfy the stability situation. A stable VECM estimate is suitable for predictions and future forecasting.

4.7.1. Other Diagnostic Test Result

The VEC model is also validated by applying Residual Serial Correlation LM Tests or Residual Portmanteau Tests for Autocorrelations with the null hypothesis of no serial correlation no residual autocorrelations at/up to lag h , Residual normality test with the null hypothesis of residuals are multivariate normal and Residual Heteroskedasticity Tests with the null hypothesis of no Heteroskedasticity in the error term and the results are presented in Table 4.5. From the result, LM Test for Serial Correlation or Portmanteau Tests for Autocorrelations results also indicates the absence of serial correlation or autocorrelation in the residual at lag 10. The normality test result (Jarque-Bera = 11.0871; $p = 0.1968$) suggests the acceptance of the null hypothesis implying that the residual is normally distributed. The test for Heteroskedasticity with Chi-squared value of 175.53 ($p = 0.5802$) indicated the acceptance of null hypothesis of no Heteroskedasticity in the error term.

Table 4.5: Other Diagnostic Test Result**VEC Residual Portmanteau Tests for Autocorrelations**

<i>Lags</i>	<i>Q-Stat</i>	<i>Prob.</i>	<i>Adj Q-Stat</i>	<i>Prob.</i>	<i>df</i>
1	9.810014	NA*	10.14829	NA*	NA*
2	25.34347	NA*	26.79128	NA*	NA*
3	37.90689	0.1002	40.75064	0.0566	28
4	45.75981	0.3990	49.81170	0.2532	44
5	58.89015	0.5163	65.56811	0.2899	60
6	77.66733	0.4253	89.03958	0.1455	76
7	94.97085	0.3952	111.6094	0.0804	92
8	105.7614	0.5430	126.3237	0.1099	108
9	117.8809	0.6378	143.6374	0.1096	124
10	137.6739	0.5398	173.3268	0.0293	140

*The test is valid only for lags larger than the VAR lag order.

df is degrees of freedom for (approximate) chi-square distribution

*df and Prob. may not be valid for models with exogenous variables

VEC Residual Serial Correlation LM Tests

<i>Lags</i>	<i>LM-Stat</i>	<i>Prob</i>
1	9.026387	0.9123
2	21.66446	0.1544
3	9.682469	0.8827
4	17.71591	0.3408
5	11.48296	0.7787
6	16.21782	0.4379
7	12.27017	0.7252
8	12.38060	0.7174
9	15.73678	0.4715
10	6.425546	0.9828

Probs from chi-square with 49 df.

OTHERS

Residual Normality Test>Jarque-Bera [Prob.) 11.0871 (0.1968)

Residual Heteroskedasticity> Chi-sq (Prob.) 175.5275 (0.5802)

Source: Authors' Computation 2019.

4.7.2. Vector error correction estimates

Table 4.6 presents the vector error correction model (VECM) result of real gross domestic product (RGDP), market capitalization (MCAP), Total transaction of Stock Exchange (TNSE) and Gross Fixed Capital Formation (GFCF). There are a lot of observations that can be deduce from the findings; for instance, the error correction

terms which are denoted by CointEq1 and measure the speed of adjustment to past shocks in equilibrium. Moreover, the first difference and lag operators which show that the findings are collected from the first step VAR in first deference. In addition, at the lower part of the table, R-squared, adjusted R-squared, F-statistic and two log likelihood values one of which is computed using the determinant of the residual covariance technique without correcting for degree of freedom.

In the upper part of the table, Panel A, Panel B, Panel C and Panel D shows the real gross domestic product (RGDP), market capitalization (MCAP), Total transaction of Stock Exchange (TNSE) and Gross Fixed Capital Formation (GFCF) as dependent variables.

Table 4.6: Vector Error Correction Estimates

<i>Error Correction:</i>	<i>D(LOG(RGDP))</i>	<i>D(LOG(MKT_CAP))</i>	<i>D(LOG(TNSE))</i>	<i>D(LOG(GFCF))</i>
CointEq1	-0.036177 (0.01841) [-1.96525]	0.408432 (0.16808) [2.43001]	0.506272 (0.13952) [3.62871]	0.029994 (0.14842) [0.20208]
D(LOG(RGDP(-1)))	0.242242 (0.23489) [1.03131]	1.689364 (2.14468) [0.78770]	1.822314 (1.78025) [1.02363]	1.110449 (1.89385) [0.58635]
D(LOG(RGDP(-2)))	0.057895 (0.22647) [0.25564]	2.259527 (2.06784) [1.09270]	1.856996 (1.71647) [1.08187]	0.630054 (1.82600) [0.34505]
D(LOG(MKT_CAP(-1)))	-0.103340 (0.08453) [-1.22257]	1.186940 (0.77179) [1.53791]	0.952531 (0.64064) [1.48684]	-0.086413 (0.68152) [-0.12679]
D(LOG(MKT_CAP(-2)))	-0.056268 (0.07191) [-0.78250]	1.062720 (0.65657) [1.61860]	1.242106 (0.54500) [2.27908]	0.218765 (0.57978) [0.37732]
D(LOG(TNSE(-1)))	0.108167 (0.08267) [1.30843]	-0.711972 (0.75483) [-0.94322]	-0.476330 (0.62657) [-0.76022]	-0.027504 (0.66655) [-0.04126]
D(LOG(TNSE(-2)))	0.048429 (0.06836) [0.70845]	-1.102537 (0.62417) [-1.76641]	-1.310546 (0.51811) [-2.52948]	-0.232981 (0.55117) [-0.42270]
D(LOG(GFCF(-1)))	0.014355 (0.03207) [0.44759]	-0.337724 (0.29284) [-1.15328]	-0.482866 (0.24308) [-1.98646]	-0.068734 (0.25859) [-0.26580]
D(LOG(GFCF(-2)))	-0.001388 (0.03190) [-0.04351]	-0.529209 (0.29125) [-1.81705]	-0.563648 (0.24176) [-2.33147]	-0.399631 (0.25718) [-1.55388]

contd. table 4.6

<i>Error Correction:</i>	<i>D(LOG(RGDP))</i>	<i>D(LOG(MKT_CAP))</i>	<i>D(LOG(TNSE))</i>	<i>D(LOG(GFCF))</i>
C	0.046284 (0.01917) [2.41464]	0.008073 (0.17502) [0.04613]	-0.008212 (0.14528) [-0.05653]	0.273357 (0.15455) [1.76875]
R-squared	0.444227	0.341895	0.569765	0.214808
Adj. R-squared	0.194129	0.045747	0.376160	-0.138528
Sum sq. resids	0.021102	1.759240	1.212167	1.371799
S.E. equation	0.032482	0.296584	0.246188	0.261897
F-statistic	1.776212	1.154475	2.942917	0.607942
Log likelihood	66.32581	-0.023422	5.563664	3.707960
Akaike AIC	-3.755054	0.668228	0.295756	0.419469
Schwarz SC	-3.287989	1.135294	0.762822	0.886535
Mean dependent	0.050043	0.261588	0.176666	0.234067
S.D. dependent	0.036184	0.303610	0.311695	0.245447
Determinant resid covariance (dof adj.)		2.66E-08		
Determinant resid covariance		5.25E-09		
Log likelihood		115.7033		
Akaike information criterion		-4.780221		
Schwarz criterion		-2.725131		

4.7.3. VECM Estimate with RGDP as Dependent variable

The result of the effect of market capitalization, its factors on economic growth is disclosed in Table 4.7. According to the result, the R² value of 0.3862 indicates that the explanatory variables explain about 38.62% of the variation in economic growth. Furthermore, the F-Statistics of 3.1460 (P=0.0244) indicates that the variables are jointly positive and significant at 5%. The value (D.W. Statistics = 2.14) indicates that the model is free from autocorrelation problem.

The negative but insignificance of the coefficient of error correction term (-0.00000018) with economic growth (RGDP) as the dependent variable gives evidence that the current RGDP in Nigeria failed to respond to disequilibrium from the past values of economic growth, market capitalization, total transactions of SE and gross fixed capital formation during the period under review. While, to the short run effect, according to Hoxha (2010) stated that the estimates of parameters associated with the lagged differences of the independent variables are interpreted in the normal manner. Generally, the findings disclosed that the value of GFCF is positively and significantly related to economic growth (RGDP) while total transaction of NSE (TNSE) is insignificant and negatively related to economic growth (RGDP).

Table 4.7: Vector Error Correction Estimates with Economic Growth (RGDP) as Dependent variable

<i>Variable</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-Statistic</i>	<i>Prob.*</i>
D(LOG(RGDP(-1)))	0.511710	0.173392	2.951181	0.0068
D(LOG(MKT_CAP))	0.008814	0.045086	0.195486	0.8466
D(LOG(TNSE))	-0.013483	0.045350	-0.297313	0.7687
D(LOG(GFCF))	0.061006	0.029227	2.087305	0.0472
ECM(-1)	-1.80E-09	1.79E-09	-1.007499	0.3233
C	0.009922	0.012357	0.802986	0.4296
R-squared	0.386199	Mean dependent var		0.048484
Adjusted R-squared	0.263439	S.D. dependent var		0.036620
S.E. of regression	0.031428	Akaike info criterion		-3.910244
Sum squared resid	0.024693	Schwarz criterion		-3.632699
Log likelihood	66.60879	Hannan-Quinn criter.		-3.819771
F-statistic	3.145959	Durbin-Watson stat		2.142576
Prob(F-statistic)	0.024447			

Source: Authors' Computation 2019; Standard errors in () & t-statistics in []

5. SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. Summary of Findings

This study examines the impact of the capital market on economic growth in Nigeria spanning 1985-2017. The paper found that there is an improvement in the market capitalization from 1980 through 2008 but the economic meltdown of year 2009 caused the stock exchange market to crash. The market capitalization and total transaction in the Nigerian Stock Exchange failed but improved in the following years. This shows that positive relationship exist between gross capital formation and gross domestic product.

Also, the study indicates that positive relationship exists between market capitalization and gross domestic product. The analysis further disclosed that there is negative relationship between volume of transaction at the floor of Nigeria stock exchange and the growth of gross domestic product. The study also disclosed that there is statistical significance between gross fixed capital formation and economic growth in Nigeria; and market capitalization of the Nigeria Stock Exchange also has positive impact on economic growth.

It was observed that capital market has greatly affected the economic development of Nigerian. Thus, the study goes further to test this impact statistically with empirical

evidence, the empirical investigation disclosed significant positive relationship between the market capitalization (Market capitalization which is the total value of the tradable shares of a publicly traded company) and the growth of GDP. In addition, the study shows that market capitalization which is always used as a proxy for the public opinion of a company's net worth and is a determining factor in some form of stock valuation has positive and significant impact on the growth of GDP.

Similarly, the study established that there is positive relationship existing between market capitalization and economic growth. Therefore, the implication is that if the public consensus on the value of a company's equity is positive, investment in shares and stocks of such companies will increase, this will enhance economic growth in the country.

Also, there is positive significant relationship between total transaction of the Nigerian stock exchange and the growth of the economy. Transaction of the stock exchange promotes gross fixed capital formation and encourages foreign portfolio investment in the country. The study showed that if the capital market is encouraged and monitored, improvement in the transaction of the stock exchange will cause GDP to increase. Therefore, it is imperative for the government and regulatory agencies of the capital market to encourage investment in share, stocks, bonds, treasury bill and other financial securities which can promote the activities of the Nigeria stock exchange, this would increase all productive activities in the country through deposit mobilization and effective capital structure financing among business organizations and corporate bodies. Thus, bringing about multiplier effect on the growth of the Nigerian economic growth and some of the stringent requirement for entry into the market should be relaxed to ensure that more companies are listed. This will improve market capitalization and positively contributes to GDP. Moreover, the capital market network should be expanded to facilitate the mobilization of savings across the country for investment.

5.2. Conclusion

In conclusion, capital market development has performed a great role in the development of Nigeria economy. That is the reason Nigeria has witnessed tremendous growth in the stock exchange market in those period. The study established that the capital market has disclosed a substantial growth in the volume of new issues in current years. Presently, the market is well-supervised by the SEC and has a well-organized management structure. In conclusion, stock exchange has played a great role in the development of capital market and the Nigerian economy and that Nigeria has seen tremendous improvement and growth in the stock exchange market due to stock market liberalization which has given room to the inflow of foreign portfolio investment.

The study also concludes that there should be trade liberalization that is capable of attracting foreign investors and that the stock exchange should seek to develop new products, most especially those that would appeal to foreign investors, such as instruments for investing in the upstream oil sector. Though, the benefits of trade liberalization are not without its on challenges, transactions costs of the Nigerian capital market are extremely high as a result of the cost of maintaining the development and technological diffusion in the capital market, cost of paying for internet subscription and the IT experts that keep the system running, the maintenance cost of maintaining uninterrupted database online, cost of hosting and maintaining the capital market website and various trading platform and software upgrade.

Nonetheless, the stock exchange is said to be insufficiently inviting new companies particularly those from abroad as a result of undue expensive red tape requirements and slow responsiveness. Though trading system is automated, NSE has proven unprogressive in permitting remote trading capability, though this is said to be coming out soon. Presently brokers are forced to trade on the floor of the exchange. There are undesirable routine practices in exchange operations – rent-seeking in the issuance process, and insider and proprietary trading is fairly common. NSE supervision of brokers is overly paternalistic, sometimes dictatorial. The impact of trade liberalization on the capital market is decisive but efforts still need to be put in place by government and other regulatory agencies to ensure that the best is achieved.

5.3. Recommendation

Based on the findings of this study, the following policy recommendations are given:

The Nigeria stock exchange activities should be made to be more transparent in its operation, this restore confidence in the mind of investors and they will be encourage to investment.

The Nigeria security and exchange commission should play its role properly to ensure that only firms with good financial standing are allowed to trade in the stock market.

The government should enlighten the people on the benefit of trading in the stock exchange market and encourage Nigerians to take advantage of the stock market and save for investment growth and capital formation in Nigeria.

The stock market should be liberalized fully this will served as a pre-condition for efficient functioning of the capital market. The liberalization of the stock market is rely required if the country's dream of becoming one of the first twenty economies of the world is to be attainable.

There is need for effective exchange rate management in Nigeria, the rising value of dollar in respect to Nigerian currency is a negative indication for foreign investors who may be afraid of investing more because when the value of dollar falls, it will also affect the value of their investment. Thus, CBN and Nigerian government should advocate for a fixed exchange rate in order to reduce the risk associated with rising exchange rate

The fluctuation in the inflation rate makes the stock market becomes unpredictable, therefore, CBN are encouraged to use appropriate monetary policy and fiscal policy control is also important to reduce the problem of inflation which has implication on the Nigerian capital market.

The Nigeria security and exchange commission has a great role to perform in making sure that only firms with good financial standing and reputation are allowed to trade in the stock market most especially in this period that the capital market is accessible to all in the international market.

REFERENCE

- Abu, A. (2009). Does stock market development raise economic growth? evidence from Nigeria. *Journal of Banking and Finance* 1(1): 15-26.
- Dalvi, M.R. & Baghi, E. (2014). Evaluate the relationship between company performance and stock market liquidity. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 4(4).
- Duke, S. B. & Nkamare, E.S. (2015). Impact 'of 'capital market on the development of' the Nigerian economy. *Archive of Business Review*, 3(4): 125-151.
- Echekoba, F. N., Ezu, G. K. & Egbunike, C. F. (2013). The impact of capital market on the growth of the Nigerian economy under democratic rule, *Arabian Journal of Business and Management Review*, 3(2).
- Edame, G. E. & Okoro, U. (2013). The impact of capital market and economic growth in Nigeria, *Public Policy and Administration Research*, 3(9): 20-33.
- Ewah, S.O. Esang, A.E. & Bassej, J.U. (2009). Appraisal of capital market efficiency on economic growth in Nigeria. *International Journal of Business and Management* 81(12): 219-225.
- Florence, O. A., Ogechi, I. A., Kingsley, O. O., Idika, J. E. & Odili, O. (2017). Impact of stock market liquidity and efficiency on performance of the manufacturing sector in Nigeria (1985-2014). *International Journal of Economics and Financial Management*, 2(1).
- Ibi, E.E., Joshua, N.J., Eja, B. R. & Olatunbosun, H.U. (2015). Capital market and industrial sector development in Nigeria- an empirical investigation. *European Journal of Accounting Auditing and Finance Research*, 3(6): 63-79.

- Israel, E. K. (2015). Capital market and the performance of the manufacturing industries in Nigeria 1970-2012. *European Journal of Business and Management*, 7(13).
- Kwode, E.I. (2015). Capital market and the performance of the manufacturing industries in Nigeria 1970-2012 *European Journal of Business and Management*, 7(13).
- Lawal, N.A. & Okunola, O.E. (2012). Stock prices, stock market operations and Nigerian economic growth: a granger causality modelling. *Global Advanced Research Journal of Management and Business Studies*, 1(10): 375-383.
- Nwamuo, C. (2018). Impact of capital market on the economic growth in Nigeria: an empirical analysis. *IOSR Journal of Economics and Finance*, 9(5): 48-59.
- Oke, M. A. (2013). Appraisal of change in investors' behavior during and after the speculative bubbles and crashes of the *Nigerian Capital Market Journal of Business and Organizational Development*, 5(1):1-25.
- Olanrewaju, A.A., Kolawole, S. A. & Samson, A. (2015). Globalization, capital market and economic development in *Nigeria Journal of Governance and Regulation*, 4(1).
- Oprea, O. and Stoica O. (2018). Capital markets integration and economic growth, *Montenegrin Journal of Economics*, 14(3): 23-35.
- Taiwo, J.N., Adedayo A. & Evawere, A. (2016). Capital market and economic growth in Nigeria *Account and Financial Management Journal*, 1(8): 498-524.
- Victor, O. O., Kenechukwu, N. J. & Richard, E.O. (2013). Capital market and industrial sector development in Nigeria: a theoretical analysis *Journal of Emerging Trends in Economics and Management Sciences*, 4(1): 20-30.
- Werigbelegha, A. P. & Ogiriki, T. (2015). Determinants of stock market performance and manufacturing sector growth in Nigeria (1987-2013). *Research Journal of Finance and Accounting*, 16(6).
- Zainab, D. (2015). Impact of Nigerian capital market capitalization on the growth of the Nigerian economy *Journal of Emerging Issues in Economics. Finance and Banking*, 4(2).

To cite this article:

Emmanuel John Kaka, Patience Iyam Eveh & Taimako John Kaka (2021). An Assessment of the Impact of Market Capitalization on the Development of the Nigerian Economy (1985-2017). *International Journal of Economics and Financial Issues*, Vol. 2, Nos. 1-2, pp. 51-75