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Stock exchange market activities and Economic Development: Evidence from the Nigerian economy

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Abstract

The study examined the impact of stock exchange market activities on economic development in Nigerian economy. The study employs multiple regressions as a technique to measure the effect of stock exchange market development on the Nigerian economy. The Secondary Data used were into market capitalization (CAP), all share index (ALLSHARE) and total volume of transaction (TNOV) and were sourced from the Central Bank of Nigeria (CBN) statistical bulletin, 2019. The technique of data analysis used was the ordinary least square (OLS) method of estimation. Findings reveals that the market capitalization (CAP) had a positive relationship with GDP, with the relationship being statistically insignificant. ALLSHARE has a positive and significant relationship with GDP. TNOV has a positive and significant relationship with GDP. Therefore, it was recommended that Government should help to restore confidence to the market through regulatory authorities which will portray transparency, fair trading transactions and dealing in the stock exchange and consequently improve economic development. The SEC and NSE should put a very good advocacy programme in place to encourage and awaken Nigerians' interest in the capital market as this will boost local participation in the market and as well enable local investors to absorb shares offloaded by foreign investors any time there was perceived economic instability.

Keywords: stock exchange market, economic development, ordinary least square (OLS)

JEL Classification: C30, E44, F43

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1.0 INTRODUCTION

The center point of the Nigeria Capital market is the Nigeria Stock Exchange. It provides a framework for the mobilization of private and public savings and the availability of such funds for productive purposes. The Nigerian Stock Exchange also assists among various competitive alternatives in allocating the capital resources of the country. The stock exchange may also be a tool that can calculate and detect the signs of an imminent economic boom or downturn well before the anticipated prosperity or decline actually happens whether the economy is either at the level of efficiency in a semi-strong or strong form. Researchers, economists and policy makers have recognized the importance of the stock market as a resource management mechanism for financial intermediation as a primary determinant of economic development (Kolapo and Adaramola, 2012; Ilo, Elumah, Yinusa, 2018).

In recent times in Nigeria, in terms of market capitalisation, which is the most widely used indicator in assessing the size of a Stock Exchange Market to an economy, it was between N10 billion and N66 billion 1988 and 1994. It improved to N 1359.3 billion in 2003, N 2112.5 billion in 2004 and N 5120.9 billion in 2006. The market capitalisation recorded the highest value of N 13181.69 billion in 2007 before falling to N 9562.97 billion in 2008 due to the global financial meltdown. It closed at N25890.21billion at the end of December 2019. The NSE All-Share Index, which was introduced with a base of 100, has also followed the same pattern of fluctuation over the years but closed at 26,842.07 at the end of December, 2019 (CBN, 2019). However, the Nigerian Stock Exchange Market has been faced with many challenges. For instance, in the stock market, there has been a decline in the value of shares resulting from the decline in oil price. But, in spite of the challenges there was hope on the horizon considering initiatives put in place by market regulators to scale up activities. There is a more effective and efficient regulatory approach with the deployment of information and communications technology (ICT) by SEC and NSE to operationalise their services. Market monitoring, enforcement of rules and ease of exchange of information between the regulators and other stakeholders in the ecosystem needs to be up scaled.

Earlier studies have emphasized the important role capital market in stimulating economic growth of countries in developing nations including Nigeria (Yartey & Adjasi, 2007; Adeoye, 2015; Okoye, Modebe, Taiwo, & Okorie, 2016; Onuora, 2019). Despite the huge presence of various intermediaries in Nigeria, the Nigerian stock market is not fully developed; however, the

country's Stock Exchange is increasingly active. As a result, there is need to answer the following question of whether stock exchange market activities have significant impact on Nigerian economic development? In similar vein, the justification for this study is that it will help determine the role of stock market in leading an economy to the path of growth, which is a prerequisite for development using the current available time series data for the Nigerian economy covering the period between 1985-2019 i.e. a period of 35 years. This study is structured along five sections. Section one is basically the current introduction. Section two deals with literature review and theoretical framework. Section three is the research methodology. Section four is the model estimation and analyses results. Lastly, section five is the conclusion and recommendations.

2.0 LITERATURE REVIEW

The key concepts used in this study are stock exchange market and economic development. The concepts are defined as follows:

2.1.1 THE STOCK EXCHANGE

There are many views of what a stock exchange is. To Armstrong (1957), author of "The book of the Stock Exchange" a stock exchange is defined as the citadel of Capital market, the temple of values. It is the axe of which the whole financial structure of the capitalist system turns". Thus, a stock exchange can be described as a market for securities. A place where securities (bonds, stocks are bought and |or sold any of such securities) with relative ease. According to Alile and Anao (1986; 29), securities are documentary evidence of ownership or entitlement to claim upon the assets of the issuing organization. These documentary evidences usually have no fixed or absolute value but are traded on the stock exchange at values which are subjectively determined by those buying or selling them. Okafor (1983) describes a stock exchange as an organized secondary market since a stock exchange is strictly a market for existing rather than new securities. The stock exchange provides an avenue for the movement of long-term capital funds from those with savings to invest in those areas of industries, commerce and government where funds are absent for expansion and other developmental purposes.

The stock exchange is also an institution which sees to the efficient allocation of acquirable capital funds to the diverse uses in the economy, and through its sensitive pricing mechanism ensures that so much of the total acquirable capital resources are allocated to apiece firm within

apiece industry as that industry deserves to have, having regards to their relative contribution to total societal wealth or satisfaction vis-à-vis other firms or industry.

According to Alile and Anao (1986), the stock exchange can also be a mechanism (barometer as some would suggest) which can measure and detect the symptoms of an impending economic boom or decline long before the predicted prosperity or decline actually occurs. The stock exchange is healthy to change in economic conditions and trends which are a reflection of the total psychology or judgments of persons using the stock exchange, among which the professional investment economist or analyst exerts the greatest influence. The stock exchange comprises of different individuals, firms, institutions and activities which relate to it.

2.1.2 ECONOMIC DEVELOPMENT

Economic development encompasses progress in providing livelihood on a sustainable basis, access to education and basic healthcare for the majority of the population (Belshaw & Livingstone, 2002). The meaning of the term “development” becomes clearer with the understanding of the term “economic growth”. By economic growth, economists generally mean the increase over time in a country’s real output per capita. Though other measures can be used, output is most conveniently measured by the gross national product (GNP). This implies that economic growth is measured by the increase in a country’s per capita GNP. Economic growth is thus sustained expansion of production possibilities measured as an increase in the real GDP over a given period. Rapid economic growth maintained over a number of years can transform a poor nation into a rich one, as has been the experiences of Hong Kong, South Korea, Taiwan and other Asian economies (Bade & Parkin, 2002). According to Malizia and Feser (2000), growth and development is complementary, because one makes the other possible. They are also alternating processes that occur sequentially. Growth is an increase in output, development is a structural change, for example technological or legal. Growth expands the economy, while development must lead to more equal distribution of income and wealth. Overall, growth and development lead to a greater range of economic choices.

A common alternative for measuring economic development has been using the rate of growth of income per capita or per capita GNP, which expresses the ability of a country to expand its output at a rate faster than the growth rate of its population (monetary growth of GNP per capita minus the rate of inflation). The GNP per capita is used to measure the overall economic well-being of the population, expressing the amount of real goods and services that is available to the

average citizen for consumption and investment (Todaro & Smith, 2003). Recently, however, economic development is defined in terms of the quality of life of the majority of the population. According to Todaro and Smith (2003), the experience of the 1950s and 1960s when many developing nations failed to realise their economic growth targets and the quality of life of the majority of their people remained for the most part unchanged, signalled that something was very wrong with this narrow definition of development.

Notwithstanding the debate for and against the efficacy of using economic growth, GNP per capita as an index for economic development, there is considerable evidence in developmental literature. It has shown that this index of economic growth is characterised by many deficiencies when related to welfare (see Allen & Thomas, 2000; Mohr & Fourie, 2004). Most specifically, the economic growth index fails to reflect the distribution of income or wealth between the rich and the poor, and can also not show what sections of the population are favoured by the growth; or the level of welfare derived from the consumption of goods and services involved. Using GNP per capita as an index, thus requires a range of problems to be resolved. Such as capturing unrecorded economic transactions from the informal sector, externalities (pollution, congestion and noise). In essence, it says nothing about the values or costs of these activities. Comparing the GNP per capita of different countries is also problematic considering the varying exchange rates of national currencies.

It could be in light of all these problems that Thomas (2000) says that over the long term, development could be seen in terms of increased living standards, improved health and well-being for all, and the achievement of whatever is regarded as a general good for the society as a whole. Hall (1983) says that belief in the trickle-down effect is one reason why the GNP per capita measure has become deeply entrenched. However, the fact that the benefits of growth have not always trickled down from all sectors as expected, is an argument neither for nor against growth as such, since a faster growth might after all be what is needed.

However, Belshaw and Livingstone (2002) argue that while GNP per capita figures are the traditional measurement of economic growth and development, a better indicator of well-being is now available, namely the Human Development Index (HDI). The HDI defines well-being in terms of combinations of a measure of income, a health indicator and an access to knowledge indicator. The process of development should at least create a conducive environment for people,

individually and collectively, to develop their full potential and to have a reasonable chance of leading a productive and creative life according to their needs and interests (UNDP, 1992).

2.2 The theoretical review.

The theoretical review for this work is based on the following finance theories.

2.2.1 Cumulative Prospect Theory (CPT)

This is a model for descriptive decisions under risk which has been introduced by Amos Tversky and Daniel Kahneman in 1992. It is a further development and variant of prospect theory. The difference from the original version of prospect theory is that weighting is applied to the cumulative probability distribution function, as in rank-dependent expected utility theory, rather than to the probabilities of individual outcomes. In 2002, Daniel Kahneman received the Bank of Sweden Prize in Economic Sciences in Memory of Alfred Nobel for his contributions to behavioral economics, in particular the development of Cumulative Prospect Theory (CPT).

A typical weighting function in Cumulative Prospect Theory. It transforms objective cumulative probabilities into subjective cumulative probabilities.

The main observation of CPT (and its predecessor Prospect Theory) is that people tend to think of possible outcomes usually relative to a certain reference point (often the status quo) rather than to the final status, a phenomenon which is called framing effect. Moreover, they have different risk attitudes towards gains (i.e. outcomes above the reference point) and losses (i.e. outcomes below the reference point) and care generally more about potential losses than potential gains (loss aversion). Finally, people tend to overweight extreme, but unlikely events, but underweight “average” events. The last points in contrast to Prospect Theory which assumes that people overweight unlikely events, independently of their relative outcomes. CPT incorporates these observations in a modification of Expected Utility Theory by replacing final wealth with payoffs relative to the reference point, replacing the utility function with a value function that depends on relative payoff, and replacing cumulative probabilities with weighted cumulative probabilities.

2.2.2 Alpha

This is a risk-adjusted measure of the so-called active return on an investment. It is the return in excess of the compensation for the risk borne, and thus commonly used to assess active managers' performances. Often, the return of a benchmark is subtracted in order to consider relative performance, which yields Jensen's alpha. The alpha coefficient (α_i) is a parameter in

the Capital Asset Pricing Model (CAPM). It is the intercept of the security characteristic line (SCL), that is, the coefficient of the constant in a market model regression.

It can be shown that in an efficient market, the expected value of the alpha coefficient is zero. Therefore the alpha coefficient indicates how an investment has performed after accounting for the risk it involved:

$\alpha_i < 0$: the investment has earned too little for its risk (or, was too risky for the return)

$\alpha_i = 0$: the investment has earned a return adequate for the risk taken

$\alpha_i > 0$: the investment has a return in excess of the reward for the assumed risk

2.2.3. The Arrow–Debreu Model

This is also referred to as the Arrow-Debreu-McKenzie model. The model suggests that, should the assumptions made about the conditions under which it works hold (i.e. convexity, perfect competition and demand independence), then there will be a set of prices such that aggregate supplies will equal aggregate demands for every commodity in the economy. The model (ADM model) is the central model in the General (Economic) Equilibrium Theory and often used as a general reference for other microeconomic models. It is named after Kenneth Arrow, Gerard Debreu and Lionel McKenzie. Compared to earlier models, the Arrow–Debreu model radically generalized the notion of a commodity, differentiating commodities by time and place of delivery. So, for example, ‘apples in New York in September’ and ‘apples in Chicago in June’ are regarded as distinct commodities. The Arrow–Debreu model applies to economies with maximally complete markets, in which there exists a market for every time period and forward prices for every commodity at all time periods and in all places.

The ADM model is one of the most general models of competitive economy and is a crucial part of general equilibrium theory, as it can be used to prove the existence of general equilibrium. Once we can prove the existence of such an equilibrium, it is possible to show that it is unique under certain conditions, but not in general.

2.3 Empirical Review

Demirguc-Kunt and Levine (1996) examined the interaction between stock market and financial intermediaries development and found that across countries, the level of stock market development is positively correlated with the development of financial intermediaries. Also reveals that firms in countries with an underdeveloped stock market first increase their debt-

equity ratios as their stock markets develop and that the debt and equity finance are complementary.

The first comprehensive study on the relationship between stock market development and economic growth was undertaken by the World Bank Research Group (Levine et al, 1997). They investigated the compatibility of stock market development with financial intermediaries and economic growth and concluded that stock market development is positively correlated with the development of financial intermediaries and long-term economic growth. They argued that stock markets provide a different bundle of financial functions from those provided by financial intermediaries. Hence, to understand the relationship between financial structure and economic growth, we need theories of simultaneous emergence of stock markets and banks.

Ubesie , Nwanekpe & Ejilibe (2020) studied the impact of Capital Market on Economic Growth in Nigeria. The study employed the ordinary least square method (OLS) in analyzing the time series variables obtained for the study. The result of the findings show that all the variables of interest were significant in explaining the behavior of capital market on the growth of Nigeria Economy except Labour force. more so, the result show that the the model employed for the analysis is adequate and best in fitting the variables obtained. Further more, necessary recommendations were made to enable the government come up with a favorable policies in which will make for improvement in the standard of living.

Onuora (2019) examined the effect of capital market on economic growth of Nigeria as case study covering a period of 2001 – 2017. The study used time series data in order to capture capital market revenue covering the period under review. The study employed ordinary least squares regression method to analyse the data obtained from the CBN statistical bulletin and World Bank. The study found that there was no significant positive relationship among some indices of economic growth and Capital Market in Nigeria. Relationship between transportation and capital market revenue; growth rate in GDP and capital market revenue were not significant; however adequate security and capital market revenue indicate positive significant relationship. The study recommends that power sector of the economy, Transportation facilities such as good road networks, availability of internet services, favourable governmental policies devoid of political selfish interest in addition to adequate security should be made available in order to make capital market function optimally and yield the expected revenue that will boost the economy

Okoye, Modebe, Taiwo, & Okorie (2016) investigated the relationship between capital market development and economic growth using data on GDP (proxy for economic growth), market capitalization ratio, value traded ratio and stock market turnover ratio (proxies for capital market development) over the period 1981-2014. Employing the vector error correction model, the study shows that in the short-run, market capitalization ratio and turnover ratio have significant negative effect on aggregate national output (GDP). The study also shows positive effect of value traded ratio as well as negative effect of inflation rate on GDP though not significant. The long-run estimate shows that all the exogenous variables have significant negative impact on GDP and that changes in market capitalization ratio, value traded ratio and turnover ratio produce more than proportionate changes in GDP. With an adjustment speed of about 91.12 per cent, the model presents an inherent capacity to overcome short-run disequilibrium. The Granger causality test shows evidence of causal impact of market capitalization ratio, value traded ratio and turnover ratio on aggregate national output. The study further shows uni-directional causality from GDP to inflation. The paper established therefore that stock market development constitutes a significant determinant of economic growth in Nigeria.

Ilo, Elumah, Yinusa (2018) investigated the impact of financial intermediaries on capital market development in Nigeria employing co-integration. To capture the activities of financial intermediaries, five proxies were used to explain financial intermediaries which include credit to the private sector to GDP, broad money supply and total bank savings while on the other hand, market capitalization was used to capture capital market development covering the period of 1981 to 2016. The result revealed that in the long run, credit to private sector and money supply will lead to an increase in capital market development while banks total savings and government expenditure results to a decrease in capital market development in the long run. The study recommends that the Central Bank of Nigeria should ensure that the domestic credits provided by the banking sector are directed into their appropriate uses and government expenditure be directed to productive sectors and recurrent expenditure be reduced by government. Credit facilities should also not be restricted to the large-scale manufacturing industries only, but it should also be extended to small and medium scale enterprises.

Adeoye (2015) examined the impact of the Nigerian Capital Market on the Nigerian economy looking at a 20 years period from 1992 to 2011. The Nigerian Capital Market was proxy as Market Capitalization against some variables of the economy such as Gross Domestic Product

(GDP), Foreign Direct Investment, Inflation Rates, Total New Issues, Value of Transaction and Total Listing. Using the multiple regression analysis, findings reveals that Capital Market has an insignificant impact on the Economy within the period under review. The study therefore advised that policies and measures that would boost investors' confidence should be enshrined in the running of Nigerian Capital Market so that it could contribute significantly to the growth of Nigerian economy noting that all elements of the market are essential ingredients to the development of a nation.

In the Indian context, Shah and Thomas (1997) can be considered as representative of a view supporting the role stock market development for economic growth. According to them, the stock market in India is more efficient than the banking system on account of the enabling government policies and that stock market development has a key role to play in the reforms of the banking system by generating competition for funds mobilization and allocation. Hence, an efficient capital market would contribute to long-term growth.

There are a few empirical literatures on African emerging markets. These include Olowe (1999), Smith et al (2002) and Osei (2002). Using Egyptian data, Mecagni and Sourial applied the GARCH estimating methodology to show that four of the popular stock market indices did not conform with the efficient market hypothesis. Osei (2002) using Ghananian data explored the character of asset pricing and the response to earnings announcements on the stock exchange.

3.1 Research Methodology

This study employs multiple regressions as a technique. This study aims at establishing a quantitative relationship between some indicators of stock market performance on Nigerian Economy. The data on stock market variables would be collected from relevant sources such as Central Bank of Nigeria (CBN), Statistical Bulletin and be used for study. The parameters of the various models would be computed and used to test the hypotheses concerning the effect of capital market reform on the Nigerian economy. The existence of a robust stock exchange market will help to attract foreign investors into the country. The methodology adapted for this study was based on the improvement suggested by Demirgüç-Kunt and Levine (1996), Levine and Zervos (1996), and Ewah et al (2009) which have investigated linkage between stock market and economic growth. Their studies infer that the economic growth (Proxied by Gross Domestic Product) is significantly influenced by the capital market indices such as market capitalization, new issues, value of transaction and total listing.

The model specification adapted for this study was based on the model suggested by Demirgüç-Kunt and Levine (1996), which have investigated linkage between stock market and economic growth. The Demirgüç-Kunt and Levine (1996) model is specified as:

$$GDP = \beta_0 + \beta_1 MCAP + \beta_2 ASI + \beta_3 TVS + \mu \dots \dots \dots (3.1)$$

Where:

GDP= Gross Domestic Product is used as proxy for economic development.

MCAP = Market capitalization

ASI = All share index

TVT = Total value of stocks traded

β_0 = Intercept

$\beta_1, \dots, \beta_3$ = Partial slopes of the linear regression

μ = Stochastic term

Thus, econometric model in this study is specified as:

$$\ln(GDP) = \alpha_0 + \alpha_1 \ln(CAP) + \alpha_2 \ln(TNOV) + \alpha_3 \ln(ALLSHARE) + U \dots \dots \dots (3.2)$$

The variables in the model above are defined as follows:

GDP refers to economic growth, and it is measured as the logarithm of the real GDP. The variable was used by Arestis et al (2001) in their empirical work.

CAP refers to market capitalization. TNOV refers to market turnover.

ALLSHARE refers to the all-share index of the Nigerian stock market. Finally, U refers to the error or disturbance term. In addition to the GDP, all the variables are expressed in their natural logarithm form (Ln).

4.1 Data Analysis

4.1.1 Descriptive Statistics

Table 4.2.1 below summarizes the basic statistical features of the data under consideration including the mean, the minimum and maximum values, standard deviation, skewness, kurtosis and the Jarque-Bera test for the data. These descriptive statistics provide a historical background for the behaviour of our data. The descriptive statistics of the variables are as shown in table 4.2.1 below.

The descriptive statistics of the variables are as shown in Table 4.1

	GDP	CAP	ALLSHARE	TTNOV
Mean	54536.97	5104.094	15699.71	410.9761

Median	8134.14	662.5	10963.1	57.6838
Maximum	999602.4	19077.4	57990.2	2350.876
Minimum	192.27	6.6	127.3	0.2254
Std. Dev.	172508.9	6843.652	15018.34	588.2577
Skewness	5.202382	0.968744	0.766318	1.544804
Kurtosis	29.0351	2.304587	2.935786	4.978125
Jarque-Bera	1080.725	5.826509	3.235509	18.50565
Probability	0	0.054299	0.198344	0.000096
Sum	1799720	168435.1	518090.5	13562.21
Sum Sq. Dev.	9.52E+11	1.50E+09	7.22E+09	11073507
Observations	35	35	35	35

Source: Author's own computation using Eviews 9, 2020.

4.2.2 Correlation Matrix

The correlation matrix is a table showing the correlation coefficients between the variables used in this project. Each cell in the table shows the correlation between two variables. This correlation matrix is used as a way to summarize data, as input into a more advanced analysis, and as a diagnostic for advanced analyses. The coefficient matrix is shown in the table 4.3 below.

The correlation of the variables are as shown in Table 4.2

Correlation	GDP	CAP	ALLSHARE	TTNOV
GDP	1.0000			
CAP	0.505768	1.0000		
ALLSHARE	0.304838	0.830044	1.0000	
TTNOV	0.318668	0.891418	0.827284	1.0000

Source: Author's own computation using Eviews 9, 2020.

4.2.3 Unit root Test

This study took caution by checking the properties of the variables via the Augmented Dickey – Fuller (ADF) test developed by Dickey and Fuller, that is, by conducting a unit root test. The test shows that all the variables are stationary at first difference. The result are presented in table 4.3.

Table 4.3: Unit Root Stationarity Result

Time Series Data	ADF Statistics	Critical Value	Stationary Status
LN (GDP)	-4.217370	-4.309824 (1%) -3.574244 (5%) -3.221728 (10%)	I(1)
LCAPGDP	-4.238896	-3.679322 (1%) -2.967767 (5%) -2.622989 (10%)	I(1)
LALLSHARE	-3.821658	-3.679322 (1%) -2.967767 (5%) -2.622989 (10%)	I(1)
LTNOVGDP	-3.919201	-4.323979 (1%) -3.580623 (5%) -3.225354 (10%)	I(1)

Source: Author's own computation using Eviews 9, 2020.

The critical values for rejection of hypothesis of unit root were from MacKinnon (1991) as reported in Eviews 9

The selected macroeconomic data on the financial market is used for the analysis and are presented Appendix 1.

The result presented in this chapter is based on the equation stated in the previous chapter. The data were analysed using the econometrics software E-view 9.5.

Model: $\ln(\text{GDP}) = \alpha_0 + \alpha_1 \ln(\text{CAPGDP}) + \alpha_2 \ln(\text{TNOV GDP}) + \alpha_3 \ln(\text{ALLSHARE}) + U$

It is expected the $\alpha_0 > 0$, $\alpha_1 > 0$, $\alpha_2 > 0$ and $\alpha_3 > 0$.

4.2.4 Regression Result

The result of the regression output is presented in the table below and the Dependent Variable is D(LGDP). It also important to note that the detail result is presented on the appendix II.

Table 4.4: The general regression result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.210153	0.028272	7.435292	0

D(LCAP)	0.343411	0.13039	2.635734	0.014
D(LALLSHARE)	-0.203264	0.138898	-1.463599	0.1553
L(TNOV)	-0.017073	0.006374	-2.678371	0.0127
R-squared	0.43577	Adjusted R-squared		0.370666
F-statistic	6.693498	Durbin-Watson stat		1.975024
Prob(F-statistic)	0.001695			

Source: Author's own computation using Eviews 9, 2020.

The Coefficient of Determination (R^2)

This shows that about 44% of variations in the dependent variable (GDP) were explained by changes in the explanatory variables of the estimated model therefore the estimated model exhibits poor fit. It further shows that about 56% of the fluctuations in LN (GDP) is caused by a random disturbances or exogenous variables outside the regression therefore R^2 is significant.

F – statistics

The high value of the f-statistics (ie. $F_c = 6.693498$) indicates that the parameters of the estimated model are jointly a simultaneously statistically significant. This implies that the estimated model is good for forecasting, predicting policy formulated and analysis purposes.

Given that $F_c = F$ – calculated or statistics and F_T to be F – tabular value thus if $f_c > F_T$, we reject the null hypothesis (H_0) and accept alternative hypothesis (H_1) otherwise we accept the null hypothesis and reject the alternative hypothesis.

At 5% level of significance and degree of freedom given as $V_1 = K-1$, $V_2 = N-k-1$: where N = number of observation, k = number of parameters in the model, $k = 4$, $n = 35$, $V_1 = 4$, $V_2 = 35 - 4 = 31$. Given that $F_{0.05} = 2.64$. Thus comparing both the calculated and tabulated value of f – distribution, i.e $F_c > F_T$ ($6.693498 > 2.64$). The above analysis implies that we reject the null hypothesis that all the parameters are insignificant (are zero) and accept our alternative hypothesis that all the parameters are significant (different from zero). The decision rule thus, is that capital reform have a positive impact on Nigerian economy at 5% level of significance.

t – statistics

The theoretical t-value at 5% level of significance with twenty seven (27) degree of freedom is 2.064 which is less than the calculated t-values for all the variable except for TVS. It implies that the parameters are individually significant to the model except β_4 estimate.

4.3 Discussion of Result

From the above estimated regression result in table above, there exist a positive relationship between Gross Domestic product and LCAGDPP. While a negative relationship exist between LGDP and LALLSHARE, LGDP and LTNOV GDP . These relationships does not conform with the A’piori expectation. Since it has been observed that the coefficient of the explanatory variables are positive for LCAPGDP and it is negative LALLSHARE and LTNOVGDP , it implies that a unit change in LCAP GDP (log of ratio of GDP to market capitalization), will lead to 0.343411 increase in the country’s LN (GDP) and decrease in GDP for LALLSHARE (log of all share index), LTNOV (log of total value of transaction) by 0.203264 and 0.017073 units respectively.

5.1 Conclusion and Recommendations

This study examines the impact of capital market on the economy. To achieve this, a model was formulated to empirically analyse the impact of stock market activities on economic growth in Nigeria using OLS technique with statistical test of significance. Stock market activities were divided into market capitalization (CAP), all share index (ALLSHARE) and total volume of transaction (TNOV). The data obtained showed that there exist upward trends in the variables which are GDP, CAPGDP, ALLSHARE and TNOV GDP from 1985 to 2019. The major findings are highlighted below:

The market capitalization (CAP) had a positive relationship with GDP, with the relationship being statistically insignificant. There is a negative relationship between the Turnover ratio and the Gross domestic product. ALLSHARE has a positive and significant relationship with GDP. TNOV has a positive and significant relationship with GDP. This result confirms the apriori expectation, and supports the position of the economists who are of the opinion that stock market activities have a positive effect on the economy. In addition, the finding that the stock market development (measured by market capitalization-GDP ratio) raises economic growth is consistent with Abdullahi (2005), Adam and Sanni (2005), Obamiro (2005) in Nigeria. It also in line with Levine and Zervos (1998), Hamid Mohtadi and Sumit Agarwal (1998), Minier (2003), Chee Keong Choong et al (2003), Nieuwerburgh et al (2006), Liu Hsu (2006), Surya Bahadur and Suman Neupane (2006), and Muhammed Shahbaz et al (2008), who reported that stock market development facilitates economic growth.

Considering the major findings of this project and the conclusion made, the following are the recommendations:

SEC and NSE should also put a very good advocacy programme in place to encourage and awaken Nigerians' interest in the capital market to reduce dominance of foreign investors. This would boost local participation in the market and as well enable local investors to absorb shares offloaded by foreign investors any time there was perceived economic instability. Government can help to restore confidence to the market through regulatory authorities which will portray transparency, fair trading transactions and dealing in the stock exchange.

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