Capital Expenditure and Economic Development: Implications for Economic Planning in Nigeria

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ABSTRACT

This study examines capital expenditure and economic development: implications for economic planning in Nigeria from 1990-2020. Specifically, the study seeks to examine the effect of capital expenditure on economic growth as a prerequisite for planning, and to examine the effect of some selected sectors as a tool for planning in Nigeria. The study employs the Autoregressive distributed lag bound (ARDL) technique and descriptive statistics to address the specific objectives. The study reveals that capital expenditure significantly impact economic growth both in the short run and in the long run period. The findings of the sector also revealed that key sectors of the economy such as the manufacturing sectors, the service sector and the agricultural sector are growth enhancing sectors of the Nigerian economy. The study therefore recommends, amongst others, that Nigerian government should block all leakages through which capital expenditure is being mismanaged. Furthermore, the government should be specific in its spending and should ensure that spending plans are directed towards these sectors given that they have untapped potentials for growth stimulation and development of the Nigerian economy.

Keywords: Capital expenditure, ARDL, Nigeria, Economic planning and growth

BACKGROUND TO THE STUDY

Every nation's main priority is to improve the living standard of the citizens. This can be achieved through government expenditure either on capital expenditure or recurrent expenditure. According to Rosoui (2015) increased government expenditure will in turn expand the economy through increased economic activities while lowering government spending contracts the economy through reducing inflationary gap which as well is capable of reducing economic activities or output. Government capital expenditure is the money spent on investment goods. This includes investment in hospitals, schools, power sector, telecommunication and road construction.

Overtime, the Nigerian nation has witnessed a tremendous increase in her revenue profile through oil exports (According to statistics over 40% of the country's GDP is accounted for by oil exports which also comprised over 70% of its budget revenues and over 95% of its foreign exchange earnings (NBS, 2022). She has equally enjoyed cycles of oil boom with successive governments harnessing the resources of the nation (Anyafor, 1996). Ironically, there has been an increase too in her expenditure pattern overtime (Nigeria's expenditure increased to #7 trillion in 2018 and to 9.7 trillion in 2019). Paradoxically, it does not appear as if the increase in capital expenditures has translated into increased economic growth and development (kanu, Ozurumba and Ihemeje 2014). (in 2019 over 40% or 83 million persons in Nigeria lived below the poverty line, while it increased to 45%or 90 million people in 2021 which was particularly due to

the covid19 pandemic (NBS, 2022). This showsan ailing economy and such can be linked to the economic planning in Nigeria.

Economic planning is a component of long-term growth and development. According to Bappahyaya, Abiah and Bello (2020), using a market economic system produces an environment where resources can be distributed appropriately and efficiently to productive sectors. This is to ensure that valuable resources, particularly in developing countries like Nigeria, are utilized efficiently. Economic planning is the allocation of scarce resources in relation to the needs for alternative uses in such a way that the satisfaction provided by them is kept at an optimal level. As a result, it necessitates choosing between limited possibilities in order to achieve a predetermined goal (Nyasha and Odhiambo, 2019).

Nigeria, like many other Third-World nations, has had to experiment a variety of development strategies in order to achieve total socio-economic, cultural, and environmental development, growth, and sustainability. As a result, great developmental strides have often generated no substantial outcomes in over five decades since Nigeria's political independence from Britain. Therefore, the actual foundation of the planning process has been drastically inadequate in terms of an acceptable and feasible budgetary structure. Among the major structural and institutional constraints impeding Nigeria's development are high levels of insensitivity on the part of public office holders and politicians, a lack of vision and mission, a lack of political will, plan distortions and underachievement, plan indiscipline, a poor statistical base, and, in the majority of cases, a lack of funds. To say the least, numerous bottlenecks and unnecessary bureaucratic huddles have stymied the smooth progress of Nigeria's Fourth Republic's planning process in general.

Nigeria yearly has been investing on capital goods with the aim of attaining a sustainable level of economic growth in the level of output. Available data has shown that the federal government has the capital expenditure at 3.61 tri in the 2022 budget. This is a drop from 4. 462 trillion in 2021. The capped amount for the 2022 budget is 19.1% decrease from that of 2021 (International monetary fund 2021). The food for thought is in the previous years when there was an increased budget on capital expenditure which Made no significant impact.

Furthermore, even with the loftiness of the Nigerian government, the continuous increases in the expenditure of the Nigerian government have not resulted in the expected or assumed substantial growth and development, hence, the country is categorized among the world's poorest countries. The country`s infrastructure has always been jettisoned by each government and many industries have collapsed. Suspension of construction work as a result of failed debts has derogated the development in Nigeria. For instance, in 2017, the Lagos- Ibadan expressway was slashed from 31 billion to 10 billion by the national assembly which lead to the suspension of such project. The assertion by the World Bank of Nigeria making each citizen 3% richer each year just by closing its infrastructure gap is yet to be actualized as a result of the country's economic planning. Therefore, this negative impact of planning has affected capital expenditure as it is one of the prerequisites for economic development which this research work seeks to answer. The following questions will aid this research; Is there any key sector that have the potentials to contribute immensely to development? What is the effect of capital expenditure on growth as a prerequisite for economic planning? Thus, the main objective of this study is to examine capital expenditure and economic development: implications for economic planning in Nigeria using annual data for the period 1990-2020. Specifically, the study sought to examine the effect of capital expenditure on economic growth as a prerequisite for economic planning in Nigeria, and examine the effect of some selected capital expenditure sectors that have the potentials to contribute to development in Nigeria.

This study is relevant to government and policy makers as it will provide the required information needed for policy formulation and implementation. In addition, it will be useful in identifying major elements that support or oppose planning in Nigeria, as well as the key sectors on which a developing country like Nigeria

should focus policies and resources. This will serve as a blueprint for Nigeria's future planning and add to our understanding in terms of the estimating techniques used and the data used, which is extended until 2020. For the period 1990-2020, an attempt is made to scientifically analyse the relationship between economic planning and economic progress in Nigeria. The paper is organized in five sections. Section 1 is the Introduction while section 2 contains the Literature Review. Section 3 presents the Methodology of Research employed in this study. The Empirical Results and Findings are presented in section 4. Finally, section 5 of this study presents the Summary, Conclusion and Recommendations.

LITERATURE REVIEW

Theoretical Framework

There are several theories on the subject of capital expenditure and economic development: implications for economic planning in Nigeria. However, for the purpose of this paper, the relevant theories are Classical Growth Theory, Keynesian theory and Wagner's theory.

Keynesian Theory

This theory separated the economic behaviour and markets based on individual incentives of broad national economic aggregate variables. Keynes advocated for increased government expenditures and lowest taxes to stimulate demand and pull the global economy out of the depression. According to the theory government intervention is needed to help economies emerge out of recession. Subsequently, Keynesian theory was employed in referring to the concept that optimal economic performance could be achieved as well as economic slumps prevented through the influencing of aggregate demand through activist stabilization and economic intervention policies by the government. This theory was developed by Keynes in response to the great depression of the 1930s, and was highly critical of previous economic theories which he referred to as classical theories. Activist fiscal and monetary policy are the primary tools recommended by Keynesian theory to manage the economy and fight against unemployment.

Essentially, Keynesian theory provided a new aspect of evaluating spending, output and inflation. previously, what Keynes dubbed classical economic thinking held that cyclical swings in employment and economic output create profit opportunities that individuals and entrepreneurs would have an incentive to pursue, and in so doing correct the imbalances in the economy. according to Keynes' construction of this so-called classical theory, if aggregate demand in the economy fell, the resulting weakness in production and jobs would precipitate a decline in prices and wages. a lower level of inflation and wages would induce employers to make capital investments and employ more people, stimulating employment and restoring economic growth and advancement. Keynes believed that the depth and persistence of the great depression, however severely tested this proposition. Therefore, economic growth and development can be stimulated through the increase in government spending to strategic sectors of the economic having growth potential.

Empirical Literature Review

Abu and Abdullahi (2010) investigated government spending on economic growth in Nigeria. They found out that in the Keynesian model, increasing government spending leads to higher economic growth. The neo-classical growth models, on the other hand, argue that fiscal policy has no effect on natural output growth. The study found out that total capital, total recurrent, and government education expenditures have a negative influence on economic growth, whereas health, transportation, and communication expenditures have a favourable impact.

Odusola (2013) studied the relationship between military expenditure and economic growth in Nigeria in

order to circumvent the problem of bi-causality in the relationship between government expenditure and economic growth. At a 10% significance level, the analysis discovered that total military spending has a negative association with economic growth. After dissecting the data into recurring and capital military expenditures, it was observed that capital military expenditure was decreasing faster than recurrent military spending in the research. This could be attributed to the military requirements of the years 1983 to 1999. Based on the findings, it was suggested that military resources be diverted to other sectors in order to have a good impact on the economy.

Loizides and Vamvouks (2012) investigated the relationship between public expenditure and economic progress. In all of the countries they looked at (Greece, the United Kingdom, and Ireland), they discovered that government size Granger causes economic progress. The findings also revealed that economic development Granger leads to increased public spending in Greece and the United Kingdom.

Aluthge and Sunday (2019) evaluated the impact of Nigerian government expenditure (disaggregated into capital and recurrent) on economic development using time series data from 1970 to 2019. The Autoregressive Distributed Lag (ARDL) model was used in this investigation. The study's main conclusions are that capital investment has a positive and significant impact on economic growth in both the short and long run, whereas recurrent expenditure has no meaningful impact on economic growth in either the short or long term. Also, the government should boost its share of capital expenditures, particularly on initiatives that have a direct impact on the wellbeing of citizens.

Ugochukwu and Oruta (2020) studied the impact of various components of government expenditures on economic growth in Nigeria. The Granger Causality Test and the Error Correction Model were used in this investigation. The short-term model found that government spending components such as recurring expenditures on agriculture, health, and education have a minor negative impact on economic growth. Debt servicing and transportation and construction expenditures had a positive and minimal effect on economic growth. Government capital expenditures on social services have been shown to have a negative and considerable impact on economic growth. Government capital expenditures on economic services, on the other hand, had a favorable but minor impact on Nigerian economic growth. Over time, all of the components of government spending that were used had a major impact on economic growth. The study recommended that the government allocate more funds to critical sectors such as health, education, agriculture, and infrastructure.

Owui. Asukwo, Olugbemi, Nkamare and Emefiele (2020) examined government capital expenditure and economic growth, using annual time series data for the period from 1972-2018. In view of the need to understand public expenditure on economic growth, this study sought to establish the relationship between capital expenditure and economic growth in Nigeria. The study employed the error correction mechanism (ECM) methodology in estimating the relevant equation. The result of the co-integration test showed that the variables are co-integrated and hence there is a long run relationship among them. The granger causality test revealed that there was bi-directional relationship between gross domestic product and capital expenditure on social and community services, expenditure on administration, expenditure on economic services and expenditure on transfers. The empirical results showed that previous one and two period values of gross domestic product have positive and significant impact on the current value of gross domestic product in Nigeria. The results also showed that public capital expenditures on administration have positive and significant impact on economic growth.

Further examination of the results showed that capital expenditure on economic services has positive impact on economic growth in Nigeria. Meanwhile the results showed that capital expenditure on social and community services has positive impact on economic growth. Lastly, the results revealed that capital expenditure on transfer has negative relationship with economic growth. The study recommended that

government should increase its spending in capital projects and also reduce expenditure on consumption in Nigeria.

The summary of the available empirical literature reviewed showed that capital expenditure and economic development have not been well investigated, especially in the Nigerian context, according to the review of literature. As a result, a thorough investigation into issues of capital expenditure and economic development in Nigerian: implications for planning urgently require investigation.

The assessment indicated that the majority of research focused solely on government recurrent spending particular in debt services and salary payments and how they affect Nigeria's economic growth. Other research focused on budgeting and the problems associated with poor budget execution in the country.

In particular, there was an identified gap in all of the reviews: most researches were centered on the effects of government expenditure on economic growth, but it has been noticed that the Nigerian economy's continuous growth has not led to economic development through the trickledown effect. This study attempts to fill this gap by looking into the specific impact of capital expenditure which is one of the major components of public expenditure on economic development in Nigeria using more robust variables to measure economic progress.

Consequently, this study aims to close all gaps by bringing the study up to the closest period of 2020, which will include all recent changes in capital expenditure efforts as well as difficulties related to the Covid19 epidemic and how these issues have impacted the Nigerian economy. In line with the above, the model for this study was derived from the theoretical framework which aims to fill all literature gaps by systematically evaluating capital expenditure issues and development prospects of the Nigerian economy. The study also intends to provide a more comprehensive review of key sectors of the Nigerian economy with potential for stimulating growth by employing graphical trends and examination of those sectors. Overall, the study will subject the variables to co-integration test in order to determine long run relationships using econometrics methods of unit root test via Augmented Dickey Fuller test (ADF) and Autoregressive Distributed Lag (ARDL).

RESEARCH METHODOLOGY

Nature and Sources of Data

Data used for this work are purely secondary in nature. They are annual time series data obtained from sources such as: The Central Bank of Nigeria Statistical Bulletin (2020) and the National Bureau of Statistics publication of various issues. The data spanned the period 1990-2021.

Model Specification

The model adopted in this study is drawn from the postulations of Keynesian theory, which asserts that planned government spending is a major stimulator of aggregate demand and output of an economic which is a prerequisite for needed economic growth. In the short run, Keynes (1936) saw proactive and well-planned government capital spending as an exogenous element that drives output growth and development. The following is the Keynesian national income model:

$$Y = C+I+G \dots \dots \dots (1)$$

Where:

Y represents national income; C – private consumption spending; I – private investment; G – government

spending.

For the sake of this study, the Keynesian model will be employed as follows (all other factors being equal):

$$Y = ?0 + G \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots (2)$$

Therefore, drawing insights from the model employed by Ugochukwu et al. (2020) the functional relationship is given as:

$$GDP = F (EXR, INTR, INF, CAEX) \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots (3)$$

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The linear forms of equation (3) produced;

$$GDP_t = a_0 + a_1 EXRt + a_2 INRt + a_3 INFt + a_4 CAEXt + \varepsilon_t \dots \dots \dots \dots \dots \dots \dots \dots (4)$$

The log-linear form

$$LnGDP_t = a_0 + a_1 EXRt + a_2 INRt + a_3 INFt + a_4 LnCAEXt + \varepsilon_t \dots \dots \dots \dots \dots \dots (5)$$

Where;

Gross Domestic Product (GDP): Gross domestic product is the total monetary value of all the final goods produced within an economy at a given period of time when inflation has not been accounted for. It shows the current value of commodities produced in the country which incorporates the increases or decreases in price from the previous value of the previous year.

Exchange Rate (EXR): The nominal official exchange rate is defined as the number of units of the domestic currency that are needed to purchase a unit of a given foreign currency.

Interest Rate (INTR): The interest rate is the amount a lender charges for the use of assets expressed as a percentage of the principal. The interest rate used here is the prime interest rate commonly called prime lending rate. It is the rate at which banks loan preferred customers funds for mortgages, loans and credit cards, and is the best rate customers can obtain. The prime rate is the lowest interest rate available for non-banks to borrow money.

Inflation Rate (INF): Inflation rate is simply defined as the percentage change of price index overtime. It is the rate at which prices in an economy increases over time, resulting in a drop in the value of money in the economy.

Government Capital Expenditure (CAEX): This is also known as fixed capital formation or government investment which involves government spending on goods and services intended to create future benefits, such as infrastructure investment in transport, communication etc.

A priori Expectation

The signs in the parenthesis represent a priori expectations of the signs of the coefficient.

Analytical technique

The analytical techniques used for this study are based on the specific objectives.

Objective 1.

To examine the effect capital expenditure and economic growth as a prerequisite for economic planning in Nigeria. ARDL was employed.

Objective 2.

To examine the effect of some selected capital expenditure sectors that have the potentials to contribute to development in Nigeria, descriptive statistics was employed.

Presentation of Empirical Results and Discussions

This section analyses and discusses the empirical results of this study.

Descriptive Statistics

The descriptive statistics of the variables employed in this study is presented in table one below:

Table 1: Summary Statistics

	LNPCGDP	LNCAEX	INF	INT	EXR
Mean	7.514316	5.964111	18.06325	7.57079	129.3242
Median	7.521964	6.252809	12.21778	7.415833	128.6517
Maximum	7.844033	7.735869	72.8355	11.06417	358.8
Minimum	7.20163	3.180077	5.382224	3.268333	8.038285
Std. Dev.	0.24467	1.222745	16.64655	1.670024	97.16621
Skewness	0.009927	-0.86686	2.130465	-0.06165	0.685807
Kurtosis	1.333534	2.859901	6.408312	3.339691	2.839339
Jarque-Bera	3.587609	3.9078	38.45566	0.168683	2.463384
Probability	0.166326	0.14172	0	0.919118	0.291798
Sum	232.9438	184.8874	559.9609	234.6945	4009.052
Sum Sq. Dev.	1.795906	44.85318	8313.226	83.66941	283238.2
Observations	31	31	31	31	31

Source: Researcher's Computation Using E views 10.

The Descriptive statistics of the variables are presented in the above table. The statistics reveal that there are 31 observations in all of the entire variables. Furthermore, the standard deviation values indicate that per capita GDP, capital expenditure and interest rate values do not differ significantly from their mean value. However, inflation rate and exchange rate have large standard deviation values indicating that their values differ significantly for, the mean. Furthermore, per capita GDP and inflation rate were positively skewed while capital expenditure, interest rate and exchange rate were negatively skewed. Their mean, median, maximum and minimum values indicate that the values in the observation do not differ significantly from each other.

Unit Root Tests

We begin this analysis by examining the time properties of the data. This is done in order to avoid spurious

regression. The orders of integration of the variables are examined using the Augmented Dickey-Fuller (ADF). The result of the unit root test for both the Augmented Dickey fuller test shows that all the variables used in this study are stationary at various levels of integration as shown in table 1.

Table1: Test Result of the Augmented Dicker-Fuller Test

Variables	ADF T-Statistics (5%)	Probability Value	Level of Integration
LNPCGDP	-7.10478	0.0000	I(0)
LNCAEX	-6.01512	0.000	I(1)
INF	-4.45363	0.0015	I(1)
INT	-4.49357	0.0013	I(0)
EXR	-3.78868	0.0077	I(1)

Source: Researcher's computation: E-views10

Autoregressive Bounds Test

Having established the optimal lag criterion for the developed model, the study goes further in estimating the structural parameters of the model. Therefore, in estimating the impact of capital expenditure on the development of the Nigerian economy, the result of the bounds test is presented in table 2.

Table 2: ARDL Bounds Test for Co-integration for LNPCGDP Model

Model		F-Statistic = 7.6189
LNPCGDP = f(LNCAEX, INF, INT, EXR)		K = 4
Critical Values	Lower Bound	Upper Bound
10%	2.525	3.56
5%	3.058	4.223
1%	4.28	5.84

Source: Researcher's computation: E-views10

The result of the bounds test using LNPCGDP as dependent variable is presented in table 2 above. The results indicate that the f-statistic value of 7.6189 is greater than the critical values at both 10%, 5% and 1% level of significance. This shows that a long run relationship exists between capital expenditure and economic development in Nigeria. In the same vein, it follows that all exogenous variables in the study and LNPCGDP are bound by a long run relationship during the period of study. Given the very insightful findings, the long run coefficients are presented below.

Long-run Coefficients of the ARDL Model

The long-run coefficient of the systemic model is essential in order to evaluate the performance of capital expenditure on the development pursuit of the Nigerian economy over the long run period. For capital expenditure to have substantial impact on aggregate demand, investment and level of production of the Nigerian economy, it must be able to direct and influence economic patterns over a longer scope and such influences are supposed to be evident on economic outcomes of the country.

Dependent Variable: LNPCGDP

Table 3: Long-Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNCAEX	0.237667	0.068192	3.485265	0.0045
INF	0.046753	0.013127	3.561482	0.0039
INT	-0.01495	0.021893	-0.68293	0.5076
EXR	0.000877	0.00063	1.390850	0.1895
C	6.279041	0.455978	13.77050	0.0000

Source: Researcher's computation: E-views10

The long run coefficients above indicate that the average value of per capita GDP when the control variables are zero is 6.28. This shows that when capital expenditure, inflation rate, interest rate and exchange rate assume the value of zero, the average income of a representative citizen in Nigeria will be 6.28. This value is statistically significant at the critical value of 5%. Accordingly, the result of the long run coefficient indicate capital expenditure is found to be statistically significant at the 5% level of significance given a probability value of 0.0045 which is less than the 5% value. The result reveals that a positive relationship between capital expenditure and per capita GDP in the country in the long run period. This shows that capital expenditure is a significant variable influencing the rate of per capita income of the Nigeria economy in the long-term period.

Similarly, the result indicate that inflation rate was found to be positive and statistically significant at the critical value of 5%. This shows that inflation rate influences per capita GDP in the long run period. Interest rate and exchange rate are found to be statistically insignificant at the critical value of 5%. This shows that Interest rate and exchange rate do not influence average income in the long run period. Overall, given the long run coefficients of the systemic model, the short run coefficients are presented below.

Error Correction Regression

The short run estimates of the systemic model are required in order to understand the effect of capital expenditure on economic development of the country in the short term. Table 5 below presents the summary of the ARDL error correction results:

Dependent Variable: D(LNPCGDP)

TABLE 4: Short Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNCAEX)	0.053400	0.012685	4.209678	0.0012
D(INF)	-0.00029	0.000304	-0.96043	0.3558
D(INT)	0.000992	0.001698	0.584469	0.5697
D(EXR)	-0.00077	0.000162	-4.73417	0.0005
ECM(-1)	-0.18873	0.023452	-8.04745	0.0000

Durbin-Watson stat = 2.31, R-squared = 0.89, Adjusted R-squared = 0.83, Akaike Info. = 4.77, Schwarz Criterion = 5.30

Source: Researcher's computation: E-views10

The estimated short-run results are presented in Table 4. The Error Correction coefficient (ECM) has the correct sign that is less than one, negative and significant at 5% level of significance. This confirms the evidence of long-run relationship among the variables and it implies that in the case of any disequilibrium in per capita GDP the system will correct itself from the short-run towards reaching long-run equilibrium at the speed rate of approximately 19% every quarter. Table 4 also indicates that the systemic model is a good fit. This is because the R^2 value of 0.89 indicates that the variation in per capita GDP explained by the control variables was 89 percent. Essentially, according to Guajarati (2009) if the R^2 is greater than the Durbin Watson Statistic then the estimated regression model will produce spurious results. Therefore, given that the Durbin Watson (DW) value of 2.31 is greater than the R^2 of 0.89 it implies that our results are not spurious and it further suggests that the model is free from autocorrelation.

The short run result further indicates that the coefficient of capital expenditure was positive and statistically significant at the 5% critical level given a p-value of 0.0012 which is less than the critical value of 0.05. The coefficient of capital expenditure was found to be 0.053400 and indicates that a percent increase in capital expenditure will lead to a 0.0012 unit increase in per capita GDP in the country. This finding conforms to the already stated a-priori expectation implying that increases in capital expenditure is supposed to spearhead increase in per capita GDP of the country. Overall, this finding indicates that capital expenditure is an important variable explaining the rate of variation in per capita GDP of the country.

Conversely, the result of the error correction regression indicates that the coefficient of inflation rate was found to be negative but statistically insignificant given a p-value of 0.3558 which is greater than the conventional level of 0.05. This shows that inflation rate is not a significant variable impacting per capita GDP in Nigeria.

Also, the result of the system model indicates that interest rate was found to be positive but statistically insignificant given a p-value of 0.5697 which is greater than the conventional level of 0.05. This shows that interest rate is not a significant variable impacting per capita GDP in Nigeria.

Finally, the short run result indicates that the coefficient of exchange rate was found to be negative and statistically significant given a p-value of 0.0005 which is less than the conventional value of 0.05. The coefficient of exchange rate was found to be -0.000767 and implies that a percent increase in exchange rate will lead to a 0.000767 percent increase in per capita GDP in Nigeria. This finding indicates that exchange rate is an important variable impacting the rate of per capita GDP in Nigeria.

Post Estimation Residual Diagnostics Test

There is need to carry out diagnostics test in order to test for reliability and validity of the structural parameters of the model. This ensures that the parameters obtained from the model can be effectively employed for prediction and policy purposes. This is presented in table 5

Table 5: Summary of Diagnostics Test Result

Dependent Variable: LNPCGDP

Test	F-Statistics	Probability Value
ARCH TEST	0.9179	0.3472
LM TEST	2.2803	0.1528
NORMALITY TEST	1.4418	0.4863
RESET TEST	1.2353	0.2901

Source: Researcher's computation: E-views10

The result of the diagnostic tests for heteroscedasticity using the autoregressive conditional heteroscedasticity test, the serial correlation Lagrange Multiplier test, the Jarque Bera normality test, and the Ramsey reset test were evaluated and summarized in table 6 above. The test indicates that the model is free from heteroscedasticity or unequal variance given a p-value of 0.3472 which is greater than the 5% critical value indicating that the coefficient is insignificant. Also, the serial correlation test indicates that the p-value of 0.1528 is greater than the 5% critical value showing that the model is free from serial correlation or autocorrelation. Similarly, the normality test indicates that the p-value of 0.4863 is greater than the 5% critical value and shows that the coefficient is insignificant and the error term of the model is normally distributed. The reset test, indicates that the p-value of 0.2901 is greater than the critical value of 5% and shows that the coefficient is insignificant and there is no specification bias in the model.

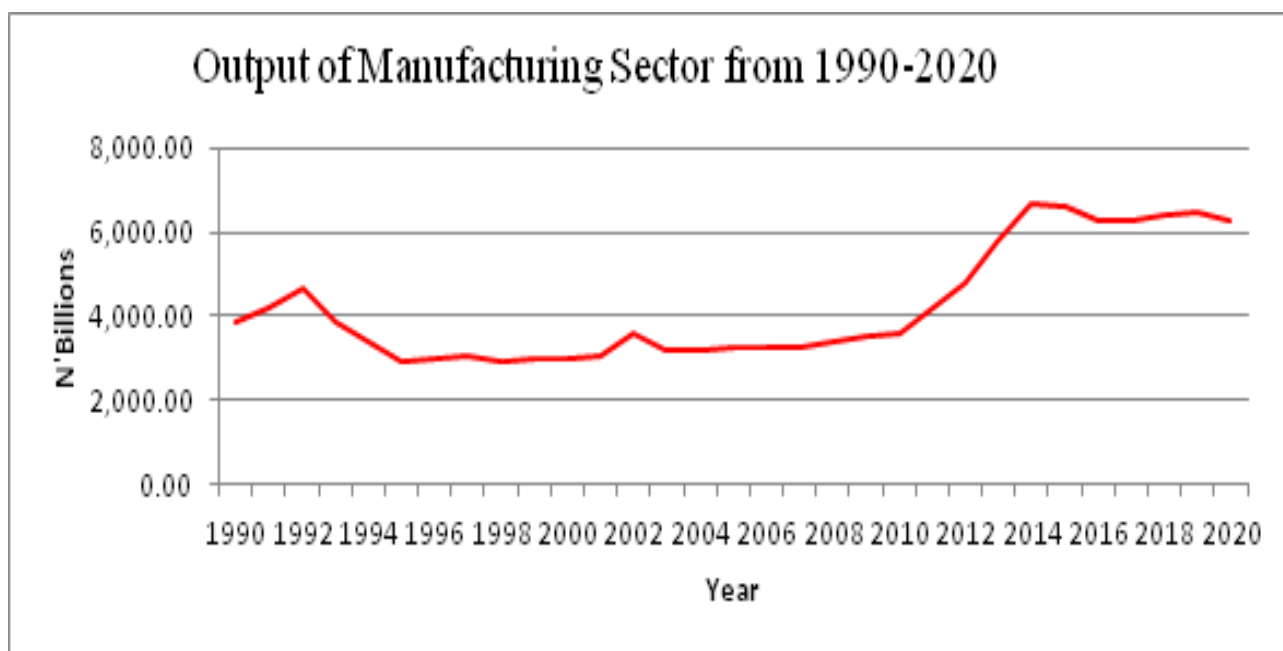**Evaluation of Key Sectors of the Nigerian Economy with Development Potential**

Figure 1: Output of the Manufacturing Sector

Source: Researcher's Computation Using E views 10.

The manufacturing sector is one of the most illustrious sectors of the economy. The trend shows that the manufacturing sector increased from 1990 to 1992 before experiencing sharp decline from 1992 until 2001 where it experienced an increase up until 2004 before decreasing again and eventually rising from 2011 up until 2014. From the year 2014, there has been moderate level of growth which has been fluctuating up to the current period. The output of the manufacturing sector indicates that the sector is a potential sector for the development of the Nigerian economy. With adequate economic planning, the manufacturing sector can provide requisite investment and employment opportunities for the teeming population of the nation. Particularly, the sector can generate more advances in the expansion of opportunities for a wide range of citizens of the nation given the observed growth potential prevalent within it. Therefore, the manufacturing sector of the Nigerian stands as one of the major sectors which can facilitate the growth and development quest of the nation.
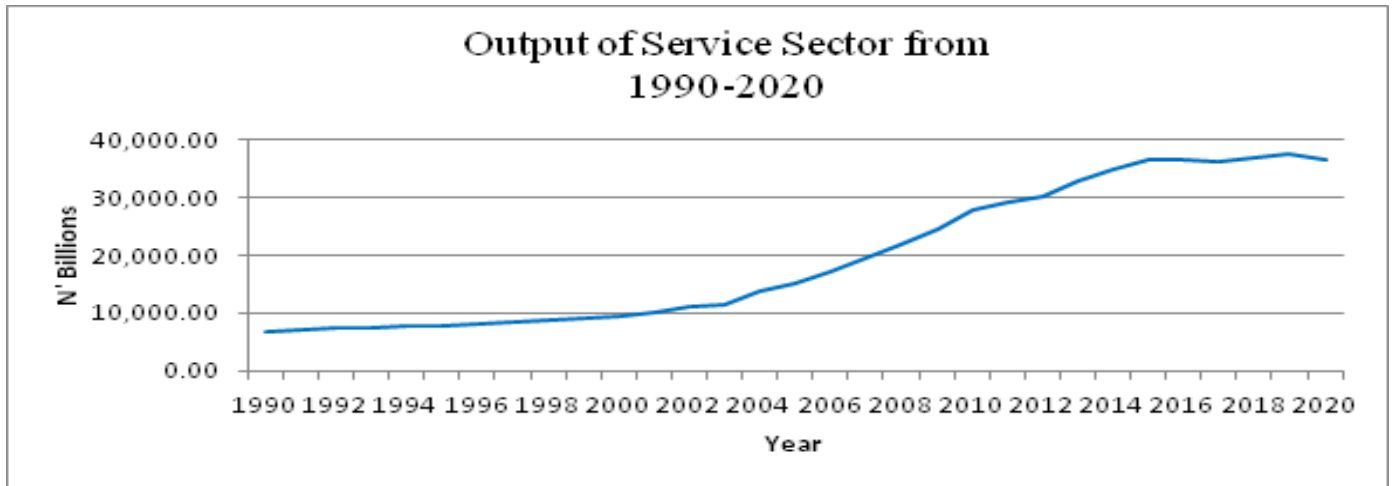
Figure 2: Output of the Service Sector

Source: Researcher's Computation Using E views 10.

Unlike the manufacturing sector, the service sector has experienced tremendous growth over the years. The trend indicates that the service sector has a straight line and positive growth of the years. This shows that there has been no decline in growth in the service sector over the years. As a matter of fact, the service sector in recent times has contributed more to output growth than most other sector of the economy. This shows that the service sector amongst other sectors of the Nigerian economy is one of the most thriving sectors which can promote growth and development of the nation if adequately planned. Particularly, with improved planning effort of the government especially in the service there would be increase in opportunities for the teeming population of the nation through the creation of more job opportunities and the establishment of several transaction avenues which could help spur growth of the economy.
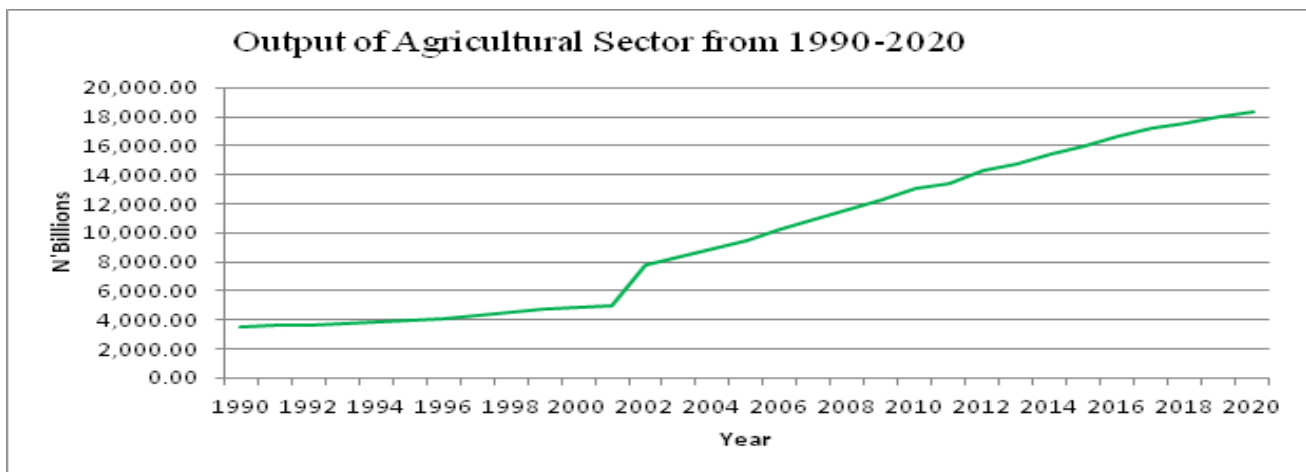

Figure 3: Output of the Service Sector

Source: Researcher's Computation Using Eviews 10.

The agricultural sector is one of the most abandoned sectors of the Nigerian economy. However, evidence from the output trend indicates that this sector has been thriving over the years substantially impacting the gross domestic product of the Nigerian economy. However, there is still huge untapped potentials from the sector as there exist evidence of the inability of the Nigerian government to adequately transmute the output of the sector towards promoting development of the country. With proper and more effective planning by the government however, there could be more benefits reaped from the agricultural sector. The Nigerian

economy particularly, is blessed with arable lands which indicate that there is huge potential for improved agricultural performance of the nation. If the government can invest heavily in this sector and make it more attractive it has the capacity of creating millions of job opportunities for the teeming population which is a step towards more improved economic performance.

SUMMARY, CONCLUSION AND POLICY RECOMMENDATIONS

The study examined capital expenditure and economic growth: implications for economic planning for Nigeria using annual data for the period 1990-2020. Specifically, the study sought to ascertain the effect of capital expenditure on economic growth as a prerequisite for planning and to examine the effect of some selected sectors as a tool for planning in Nigeria. The study employed the Autoregressive distributed lag bound (ARDL) technique and descriptive statistics to address the specific objectives. The study revealed that capital expenditure significantly impacts economic growth both in the short run and in the long run period. The findings of the sector also revealed that key sectors of the economy such as the manufacturing sectors, the service sector and the agricultural sector are growth enhancing sectors of the Nigerian economy. It was revealed that the agricultural sector has been greatly abandoned over the years despite having huge growth potential.

In conclusion, this study has revealed the role that capital expenditure has on economic growth with its implication on economic development. However, from the findings it was revealed that despite capital expenditure having an impact on growth of the Nigerian economy both in the short run and long term, its impact has not been substantial. Particularly, the coefficient of capital expenditure in both the short run and long run period indicates that the impact of capital expenditure on development of the Nigerian economy has been very low compared to what is expected and the huge amount of money spent on yearly basis by the government. This factor can be attributed to a lot of issues coming from misappropriation of funds, corruption and embezzlement amongst others. On the other hand, the key sectors of the economy with growth potential indicates that the service sector is one of the leading sectors in terms of growth prospect. Research shows that the service sector in recent times has contributed more to the growth of the Nigerian economy than other sectors. This shows that there is huge untapped potential in the sector in the sector.

The study recommends policies that the government should block all leakages through which capital expenditure is being mismanaged. As a matter of fact, the government should be very prudent in its capital spending and such spending should be well accounted for. There should be avenues created at ensuring that capital expenditure funds are effectively utilized. The government should set up committee of trusted individuals who will monitor the utilization of such funds in order to guarantee judicious usage. Furthermore, the government should be specific in its spending and should ensure that spending plans are directed towards these sectors given that they have untapped potentials for growth stimulation and development of the Nigerian economy.

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