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## I. INTRODUCTION

The word budget was derived from the word 'bourgettees' in 1633. The need to map out a national financial plan led to the development of budget. The importance of budget to the government and the nation at large cannot be overemphasized as all futuristic financial activities of each level of government (local, state and federal) depends largely on the budget. In other words, budget is an important instrument of governance in any modern state. It has the potential of aiding planning and contributing to development in an economy. Being a comprehensive income statement of

the government, it is regarded as an indispensable tool capable of inducing economic growth and development. Ogujiuba and Ehigiamusoe (2013) posited that the national budget is the most important economic policy instrument for a government and it reflects the government's priorities regarding social and economic policy more than any other document. In other words, the budget is the principal instrument of fiscal policy. Supporting the foregoing notion is Ohanele (2010) who further stressed that a well-functioning budget system is vital for the formulation of sustainable fiscal policy and the facilitation of economic growth. Moreover, the effectiveness of a budget irrespective of any country depends on the executive as well as the legislative arm of government.

Basically in Nigeria, budget process includes budget preparation by the executive, legislative approval and implementation by the different ministry, department and parastatal of the government. During the phase of budget implementation, there are many possibilities for interventions and manipulations in view of the fact that officials have a great amount of discretionary power to decide which spending ministry or agency will be granted spending authorization. In Nigeria, before ministries and spending agencies of the government can incur an obligation to make expenditures, they must secure spending authorization from the Ministry of Finance through the use of warrants. This warrant will authorize officers controlling votes to incur expenditure in accordance with the approved estimates subject to any reserved items. In spite of the specific nature of appropriation laws, the commitment phase of the expenditure process is a fertile ground for corrupt activities. If the Appropriation Act has not come into operation at the beginning of the year, a provisional general warrant may be issued to ensure continuity of the services of government at a level not exceeding those of the previous year. The length of period of spending authorization is determined in functional cash flow forecast for the period when payments are anticipated.

Nigerian economy is faced with series of imbalances in economic policy formulation and implementation respectively. The root of most problems in Nigeria is imbalances in budget formulation and implementation. As noted by Ogujiuba and

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Ehigiamusoe (2013), it is supposed to be the most important economic policy instrument; unfortunately, it is shrouded with a lot of myths and illusions which is still not contributing to the economic growth and development of the country. It is important to stress that, Budgeting and its process in Nigeria remains problematic both in the areas of preparation and implementation, hence, the need for adequate control aimed at improving effective resources utilization at the budget implementation stage. A budget is designed to arrest the declining growth in the production sector, check inflationary pressure, correct balance of payment deficit and maintaining a reasonable foreign exchange reserve but these purposes has remained largely unachieved. There are several factors that has brought about the issue of the budget not fully implemented in Nigeria. These unfortunate delays and imbalances have become recurring events since 1999 and have painfully slowed Nigeria's democratic journey to economic prosperity. Moreover, it must be noted that delays over the past years have resulted in a low national budget performance and have limited the executive arm's ability to effectively execute projects that would improve the living conditions of the citizenry (Ibrahim, 2011). Hence, the low level of budget implementation has been a consistent problem in Nigeria. Recently, the controversy of fall in world oil price benchmark has been identified as one of those factors that brought about menace in the implementation of budgeting policy in Nigeria.

None or partial implementation of the national budget is also traceable to the nation's debt properties. Nigeria is a developing country which relies on external source of finance (debt financing). Unfortunately for the nation, the amount of this debt has now become a burden. Nigeria's debt is obligated to be serviced back at an agreed period of time Due to the implementation of the national budget, a sizeable chunk of the nation's hard earned revenue (foreign earnings) has been appended on debt servicing which has caused some setbacks in the development of the Nigerian economy. Going by the reason that debt service constitute an important item in the national budget, it should be included as one of the variables which can significantly affect the nation's growth in this study. It is therefore important to ascertain if the implementation of debt servicing has a significant impact on Nigeria's economy. Previous researches on the subject matter "the evaluation of the impact of budget implementation on the growth of the Nigerian economy" such as the one carried out by Oke (2013) excluded debt servicing as one of the key variable and proxy for budget implementation. This study will include debt service as one of the variables to be used in this study.

Moreover, the implementation of the national budget means a corresponding implementation of debt servicing, capital expenditure, recurrent expenditure, tax, subsidies among others in Nigeria since they are

important component of the national budget. Exclusively, three and half decades away from the first republic, there has never been a year in which the capital budget attained 75% implementation (Ogujiuba & Ehigiamusoe, 2013). Capital expenditure has been projected to significantly drop by 30.7% (about N487billion) from 2013. As a percentage of aggregate expenditure, capital expenditure accounts for only 23.7%. This huge decrease is a major setback in adequately funding ongoing infrastructure projects under the "Transformation Agenda" of the government. Currently, there are several projects that are abandoned due to paucity of funds. Government would then be faced with the alternative of more borrowing or reconsideration of fuel subsidy removal in order to carry out infrastructure projects. It remains a fact that enormous investment is required for capital development especially in the areas of infrastructure such as electricity, roads and so on, which are necessary for economic growth and development. Though, it has been proved that capital expenditure contribute immensely to economic growth. The more the government wish to implement capital expenditure results in the government borrowing heavily which can adversely affect the country and if there is a shortage in capital expenditure, there would be reduced infrastructure. It is therefore needed to subject capital expenditure to analytical test against economic development. In light of this, ascertaining the impact of capital expenditure on Nigeria's economy becomes imperative in this research.

The effect of budget implementation on economic growth- a synergistic effect has previously been studied and findings are personified. However, there are many research work conducted on the effect of budget implementation on economic growth in Nigeria. To a proportional extent, the public sector is attributed to the fiscal and monetary actions of government. These actions pressure purpose the need for effective allocation of resources, sense of identity and fulfillment, social cohesion and fairness dealings with structural development at all unit of the society. (Aregbeyen, 2007) Over the last decade, the growth impact of fiscal policy has generated large volume of both theoretical and empirical literature. However, most of these studies paid more attention to developed economies and the inclusion of developing countries in case of cross-country studies were mainly to generate enough degrees of freedom in the course of statistical analysis. Unfortunately, the case of public to achieve efficiency and equity for the best interest of her citizens remains dismay. More also, previous studies and findings carryout by various researcher to explore the relationship between the proxy of economic growth and that of budget using the time-series annual data method (Ordinary Least Squares) which has only but reveal the short-run relationship of the variables.

The impact of budget implementation on economic growth has generated large volume of empirical studies with mixed findings using either ordinary least square, Pooled Least Square, simple percentage or chi square. Oke (2013) conducted a study to theoretically and empirically explore the effect of budget implementation on the Nigerian economic growth and provides a panacea to the problem of budget allocation and its implementation. The study adopted the econometric model of ordinary least square (OLS) regression test for analysis and time series data which spans from 1993 to 2010 was considered to capture the short run relationship between the proxies of budget implementation and economic growth. However, few research work has been conducted to explore the long run relationship between the variables of economic growth and that of budget. Hence, this study however seeks to fill the above knowledge gap by adopting the co-integration and error correction mechanism (ECM) to explore the long run effect between each of the economic variable as well as taking a cursory look at loopholes that have been responsible for rendering the budget implementation ineffective, thereby not achieving the desired objectives.

Furthermore, the 2014 budget is a relatively tight budget compared to 2013. The delay in the presentation of the budget was avoidable and expectation is that the legislative arm will promptly pass the budget. As always, the major task remains the implementation of the budget given that the 2013 budget was only 64% implemented as at when the 2014 budget was presented. We hope that a better implementation of the 2014 budget will be achieved (Pwc, 2014). So far, there has not been any research on the subject matter that is able to establish if the 2014 has been better implemented which necessitate carrying out this research using an up-to- date in its analysis using 2014. Specifically, the coefficient of multiple determinants will be employed as the germane statistical technique in establishing the percentage at which the national budget has been established. In other words, the study set out to achieve the current implication of budget implementation of Nigeria's economic growth.

The broad objective of this study is to evaluate the impact of budget implementation on the economic growth of Nigeria, while the specific objectives are to:

- i. identify the major factors hindering budget implementation in Nigeria.
- ii. determine the impact of the implementation of capital expenditure on the growth of the Nigerian economy.
- iii. investigate the impact of the implementation of recurrent expenditure on the growth of the Nigerian economy.
- iv. examine the impact of the implementation of debt servicing on the growth of the Nigerian economy.

## II. EMPIRICAL LITERATURE

Empirical literature on the evaluation of the impact of budget implementation on economic growth will be reviewed based on researches conducted in other countries across the globe. Also, it is pertinent to state that the cluster of this study will not go beyond the confines of the Nigerian economy in data usage which will be used when carrying out analysis on the subject matter. The study will employ the use of secondary data that spans from 1986 to 2014 for analytical purpose. The study carried out an up-to-date analysis which necessitate the use of 2014 data in order to produce objective conclusion and recommendations based on the findings of the study.

This research work will help the following set of people such as the government, researchers, and readers etc. The study will provide a clear insight for macroeconomic policy makers to know the implication of several policies that pertains specifically to debt service, capital budget and recurrent budget on the nation's economy through its findings. In other words, the study will provide policy recommendations based on its findings which will serve as a reliable basis for the government to know the precise policies that is favorable to the country. Thus, this study will be of great importance to government legislator and executive in their budget formulation and implementation respectively defining the threshold at which to intervene in the management of the economy,

The study intends to serve as a knowledge widener which will be as a result of bridging the research gap left out by the recent researches on the subject matter. In view of this, readers and students become exposed to a broader knowledge on budget and the effect of its implementation on the economic growth of Nigeria.

## III. LITERATURE REVIEW

### a) *Concept of Government Budget*

The concept of government budget from layman's perspective can be seen as an estimate of government income and expenditure for a set period of time. It could also be regarded as a regular estimate of expenditure put forward by a finance minister. This view seems narrow in explaining the concept of government budgeting. Samuel and Wilfred (2009) provided a broader concept. They opined that budget is a comprehensive document that outlines what economic and non-economic activities a government wants to undertake with special focus on policies, objectives and strategies for accomplishment that are substantiated with revenue and expenditure projections. From this definition, they put forward that government budgeting cut across both the economic and non-economic activities of government spending.

Smith and Thomas (2004) also defined budget to be a plan for the accomplishment of program related to objectives and goals within a definite time period including an estimate of the resources required together with an estimate of resources available usually compared with one or more past periods showing future requirements. In another related definition as given by Omolehinwa (1989), it is a plan dominant individual in an organization expressed in monetary terms and subject to the constraints imposed by the participants and the environments indicating how the available resources may be utilized to achieve whatever the dominant individual agreed to be on the organization's priorities. The impressive thing about this definition is that, it recognizes the constraint imposed on budget by other particulars that are to ensure that the objectives and targets enunciated in the budget are achieved.

Budgeting as a concept of authorization explains the original purpose of budgeting as a financial plan to provide money for government institution. Consequent upon this, the government institution carries out their activities usually a year as expected in quantitative terms ensuring effective and efficient mobilization of resources.

b) *Budget Cycle*

Budget cycle is used as an instrument for implementing development plans in regulating economics and therefore influencing the market in predetermined manner. Planning and control systems operate in a circle of which budgeting is an important point. The budgeting acts as a link between planning and control. The important component of the circle is shown in this chart.

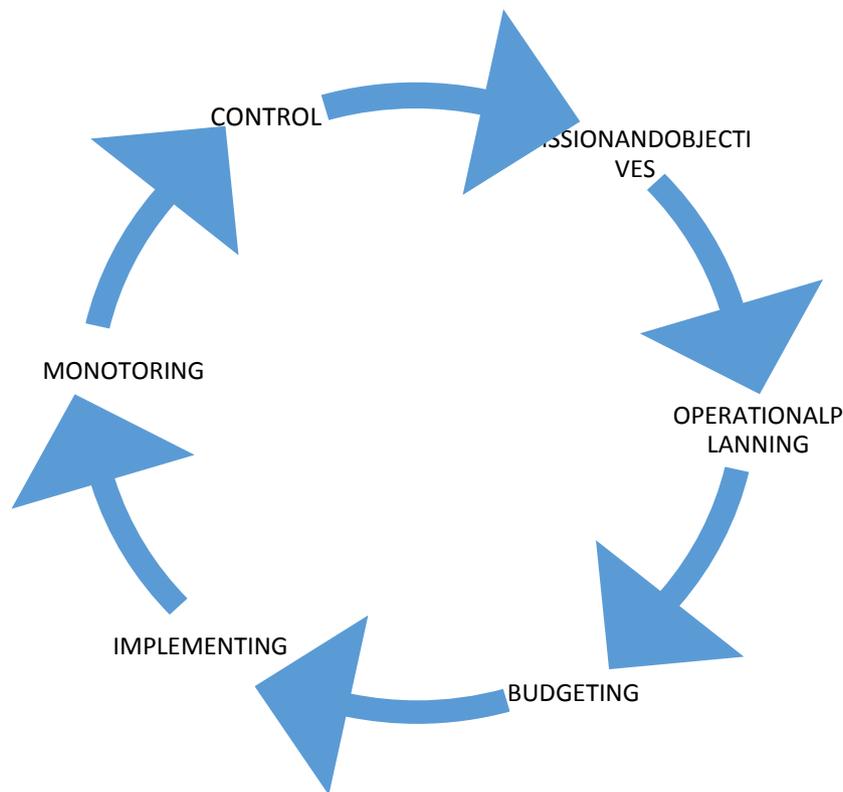


Fig 1 : The Budget Cycle

Source: Nwabundo (2010)

- i. *Mission and Objective:* This gives the direction and aspiration of the government in the next three to five years.
- ii. *Planning:* What to do, how and when to do them is mapped out within the framework of the national development plan. The values of revenue obtainable from all sources have to be stated for each year of the planned period.
- iii. *Budgeting:* When decisions about what to accomplish in each year had been taken and expressed in monetary terms in the budget, planned expenditure for each year must be matched with expected income.
- iv. *Implementation:* When budget is finally approved, it authorizes expenditure and communicates the plan to all ministries, states and all budget holders.
- v. *Monitoring:* As the budget is implemented, periodic records are kept and forwarded to the ministry of finance.
- vi. *Control:* With report emanating from the monitoring process, achievements are consistently compared with the budget.

### c) *Classification of Budget*

Budget also is an important tool in governance and most relevant to the economic policy. It is the second most important document after the constitution in any country of the world (Samuel & Wilfred, 2009). It signifies that the budget is an expression of the constitution and statutes of a government which endow the executive and legislature with designated financial and managerial responsibilities. Budget has been classified into different types. They are:

- i. *Surplus Budget*: It refers to as a situation where the expected revenue surpasses the expenditure. This has been the dream of every government.
- ii. *Balanced Budget*: This occurs the moment the proposed expenditure is equaled to the expected revenue. This situation, however, is always difficult to attain. In fact, it requires a high financial prudence and acumen to accomplish.
- iii. *Deficit Budget*: The expenditure is higher than the projected revenue in this type of budget. This is where government spent more than it earned. It came with the need to finance government projects despite the non-availability of funds.
- iv. *Supplementary Budget*: As the name implies, it means the budget made or initiated after the main budget is passed. This type of budget is necessary if it is discovered that the earlier amount appropriated by the by the Appropriation Act for any purpose is insufficient; or there is need for expenditure on a purpose for which no amount has been earlier appropriated.
- v. *Development Budget*: It refers to a budget plan over a long period of time. It is usually incorporated as part of development plan.

### d) *Factors that Hinders Budgeting in Nigeria*

According to Eze and Ani (1999) Budgeting is a great management tool. Its effectiveness will however depend on how these limiting factors are handled in relation to the various sectional budgets and the master budgets usually when plans are being formulated, there are variations. Onaolapo and Olaoye, (2013) were of the opinion that practical problems of budget implementation include: first, corruption, this is one of the setbacks of fruitful budgeting process. Evidences are bound in records of Economic and Financial Crime Commission. Corruption is quite endemic. Second, fluctuating revenue and over-dependence on oil revenue. Third, unstable economic parameters such as price level, unemployment etc affect budgetary effectiveness. Fourth, poor conception of people toward budget. What definition does the people in the ministries, departments and legislative arm give to budget? May be: national cake, annual rituals or paddble document and the like. Fifth, Unstable government policies from one fiscal year to another. Sixth, inadequate finance. Seventh, lack of

qualified manpower. Others include: lack of qualified manpower; paucity of data, lack of effective budget monitoring i.e. the execution of the budget, delay in approval of project proposal by the ministry and the legislature and lack of specialization or skill on the part of the budget officers who are saddled with the responsibility of implementing budget.

### e) *Budget Implementation and Economic Growth*

The impact of budget implementation and economic growth has generated large volume of empirical studies with mixed findings using cross sectional, time series and panel data. Appropriate budget implementation is generally believed to be associated with growth, or more precisely, it is held that appropriate fiscal measures in particular circumstances can be used to stimulate economic growth and development (Onaolapo & Olaoye, 2013).

The role of economic policy in the achievement of macroeconomic objectives has been extensively dealt with in Keynesian analysis of an activist macroeconomic policy. The Keynesian analysis leads to the conclusion that demand management policies can and should be used to improve macroeconomic performance. A basic premise of Keynesian economics is that the private sector is inherently unstable. It is subject to frequent and quantitatively important disturbances in the components of aggregate demand. It is the task of counter cyclical or stabilization policies to offset these private sector disturbances and so keep real output close to its market – clearing equilibrium time path (Omitogun & Ayinla, 2007).

## IV. THEORETICAL FRAMEWORK

This section highlights some basic theories that have been used to support the effects of budget implementation on economic growth. Such theories amongst others are:

### a) *Musgrave Theory of Public Expenditure Growth*

This theory was propounded by Musgrave as he found changes in the income elasticity of demand for public services in three ranges of per capita income. He posits that at low levels of per capita income, demand for public services tends to be very low, this is so because according to him such income is devoted to satisfying primary needs and that when per capita income starts to rise above these levels of low income, the demand for services supplied by the public sector such as health, education and transport starts to rise, thereby forcing government to increase expenditure on them. He observes that at the high levels of per capita income, typical of developed economics, the rate of public sector growth tends to fall as the more basic wants are being satisfied.

b) *The Wagner's Law/ Theory of increasing State Activities*

Wagner's law is a principle named after the German economist Adolph Wagner (1835-1917). Wagner advanced his 'law of rising public expenditures' by analyzing trends in the growth of public expenditure and in the size of public sector. Wagner's law postulates that: (i) the extension of the functions of the states leads to an increase in public expenditure on administration and regulation of the economy; (ii) the development of modern industrial society would give rise to increasing political pressure for social progress and call for increased allowance for social consideration in the conduct of industry (iii) the rise in public expenditure will be more than proportional increase in the national income (income elastic wants) and will thus result in a relative expansion of the public sector. Musgrave and Musgrave (1988), in support of Wagner's law, opined that as progressive nations industrialize, the share of the public sector in the national economy grows continually.

c) *The Solow's Theory*

Robert Solow and T.W. Swan introduced the Solow's model in 1956. Their model is also known as Solow-Swan model or simply Solow model. In Solow's model, other things being equal, saving/investment and population growth rates are important determinants of economic growth. Higher saving/investment rates lead to accumulation of more capital per worker and hence more output per worker. On the other hand, high population growth has a negative effect on economic growth simply because a higher fraction of saving in economies with high population growth has to go to keep the capital-labour ratio constant. In the absence of technological change & innovation, an increase in capital per worker would not be matched by a proportional increase in output per worker because of diminishing returns. Hence capital deepening would lower the rate of return on capital.

d) *Theoretical Underpinning*

Keynes theory on public expenditure and economic growth was among the most noted with his apparently contrasting view point on this relation. Keynes regards public expenditures as an exogenous factor which can be utilized as a policy instruments promote economic growth. From the Keynesian's point of view, public expenditure can contribute positively to economic growth. Hence, an increase in the government consumption is likely to lead to an increase in employment, profitability and investment through multiplier effects on aggregate demand. As a result, government expenditure augments the aggregate demand, which provokes an increased output depending on expenditure multipliers.

e) *Review of Related Empirical Studies*

Various empirical studies have been conducted to validate whether budget implementation has a favorable impact or otherwise. Evidences from various researchers are thoroughly reviewed in this sub-chapter in order to get an adequate knowledge of the effect of budget implementation globally.

f) *Evidences from Developed Countries*

Loizides and Vamvouks (2005) employed the causality test to examine the relationship between public expenditure and economic growth, using data set on Greece, United Kingdom, and Ireland. The authors found that government size Granger causes economic growth in all the countries they studied. The results also indicated that economic growth Granger causes public expenditure for Greece and United Kingdom. Verma and Arora (2010) examined the validity of Wagner's law in India over the period from 1951 to 2008. Empirical evidences regarding short-run dynamics refuted the existence of any relationship between Developing Country Studies [www.iiste.org](http://www.iiste.org) economic growth and the size of the government expenditure. Afzal and Abbas (2012) reinvestigated the application of the Wagner's hypothesis to Pakistan over the period from 1960 to 2007 using time series econometrics techniques. The study found that Wagner's hypothesis does not hold for aggregate public spending and income for three periods (1961–2007, 1973–1990, and 1991–2007) while it holds only for the period from 1981 to 1991. However, when fiscal deficit is included, the results supported the existence of Keynesian views about public spending and growth.

Zheng (2010) studied the empirical analysis on the relationship between the sizes of Chinese government, as measured by its annual spending, and the growth rate of the economy. More specifically, it designed to examine the applicability of Wagner's law to the Chinese economy. The statistics used in this research is annual time series data on total government spending and gross domestic product covering the period from 1952 to 2007. Empirical results showed no strong evidence in support of the validity of Wagner's law for Chinese economy. Olomola (2004) confirmed the Wagner's hypothesis both in short run and in the long run in Nigeria for the period from 1970 to 2001.

g) *Evidences from Developing Countries*

Dogan (2006) investigated the relationship between national income and public expenditures for Indonesia, Malaysia, Philippines, Singapore, and Thailand. Granger causality tests were used to investigate the causal links between the two variables. The result of Granger causality revealed that causality runs from public expenditures to national income only in the case of Philippines, and there was no evidence for other countries.

Komain and Brahmasrene (2007) examined the relationship between public expenditure and economic growth in Thailand, by employing the Granger causality test. The results revealed that public expenditure and economic growth are not co-integrated, but there exists a significant positive effect of public expenditure on economic growth.

Bingxin, Fan and Saurkar, (2009) assessed the impact of the composition of public expenditure on economic growth in developing countries. They used a dynamic generalized method of moment (GMM) model and a panel data set for 44 developing countries between 1980 and 2004. The results indicated that the various types of government spending had different impact on economic growth. In Africa, human capital expenditure contributes to economic growth whereas, in Asia, capital formation, agriculture, and education expenditure had strong growth promoting effect.

#### h) Evidences from Nigeria

Abu and Abdullah (2010) investigates the relationship between government expenditure and economic growth in Nigeria from the period ranging from 1970 to 2008. They used disaggregated analysis in an attempt to unravel the impact of government expenditure on economic growth. Their results reveal that government total capital expenditure, total recurrent expenditure and Education have negative effect on economic growth. On the contrary, government expenditure on transport, communication and health result in an increase in economic growth. They recommend that government should increase both capital expenditure and recurrent expenditure including expenditure on education as well as ensure that funds meant for development on these sectors are properly utilized. They also recommend that government should encourage and increase the funding of anti-corruption agencies in order to tackle the high level of corruption found in public offices in Nigeria.

Nurudeen and Usman (2010) investigated the effect of government expenditure on economic growth with disaggregated expenditure data from 1979 to 2007. The results reveal that government total capital expenditure, total recurrent expenditures, and government expenditure on education have negative effect on economic growth. While the foregoing studies focused on the Keynesian model which stipulates that expansion of government expenditure accelerates economic growth.

Ighodaro, Clement and Dickson (2010). In addition to total government expenditure they used a disaggregated government expenditure data from 1961-2007, specifically; expenditure on general administration and that of community and social services to determine the specific government expenditure that economic growth may have significant impact on. Other variables reflecting fiscal policy changes and political freedom

were also included in the model to augment the functional form of Wagner's law. All the variables used were found to be I(1) and long run relationship exist between the dependent and the independent variables except in the case where only GDP was used as the independent variable. Wagner's hypothesis did not hold in all the estimations rather Keynesian hypothesis was validated.

Oke (2013) conducted a study to theoretically and empirically explore the effect of budget implementation on the Nigerian economic growth and provides a panacea to the problem of budget allocation and its implementation. The study the adopted the econometric model of ordinary least square (OLS) regression test for analysis and time series data span from 1993 to 2010 was considered to capture the short run relationship between the proxies of budget implementation and economic growth. The study revealed that implementation has a positive effect impact on Nigeria economic growth. The study further showed a positive relationship between GDP and public total expenditure (PEX), public recurrent expenditure (PRE), public capital expenditure, external debt (EXD), while public capital expenditure (PCE) shows a negative relationship to GDP.

Patricia and Izuchukwu (2013) investigates the effect of government expenditure in education on economic growth in Nigeria over a period from 1977 to 2012, the study adopted the Error Correction Model (ECM) to achieve its objectives. The study used Ex-post facto research design and applied time series econometrics technique to examine the long and short run effects of public expenditure and economic growth in Nigeria. The study revealed that Total Expenditure Education is highly and statistically significant and have positive relationship on economic growth in Nigeria in the long run. The result has more implication in terms of policy and budget implementation in Nigerian.

Onaolapo and Olaoye (2013) conducted a study on the appraisal of the factors contributing disparity in budget proposal and implementation. The main thrust of this paper was to examine the behavioral aspect of budget implementation disparity. Two hypotheses were set forth and tested using two ministries namely: education and finance in the Ekiti State of Nigeria. The study was analyzed using the primary data of analysis. Thirty high ranking staff involved in budget preparation and implementation out of thirty-five administered with questionnaires responded to time. Their findings revealed that government ministries always meet their budget target and the ministries have adequate measures to curb budget variances.

## V. METHODOLOGY

The design of this research is the *ex-post facto* research design" which is a quasi-experimental study

examining how independent variables prior to the study affects the dependent variable. *Ex-post facto* is also referred to as “after the fact research design” in which the investigation is conducted without interference from the research.

The study adopts an econometric model in determining the effect of budget implementation on economic growth, using Nigeria as a case study. The study adopts a similar model used by Oke (2013) which is specified below as:

$$GDP = f(PEX, PRE, PCE, PDS) \dots\dots\dots \text{Eqn 3.1}$$

In specifying the model for this study, the above model will be modified by removing public total expenditure (PEX) variable to suit the Nigerian situation. This variable is removed to avoid the violation of the ordinary least square principle which is referred to as multicollinearity.

The model is specified as follows:

$$GDP = f(PRE, PCE, PDS) \dots\dots\dots \text{Eqn 3.2}$$

$$\text{Log}(GDP) = \beta_0 + \beta_1\text{Log}(PRE) + \beta_2\text{Log}(PCE) + \beta_3\text{Log}(PDS) + \mu \dots\dots\dots \text{Eqn 3.4}$$

From equation 3.3 above, the model can further be stated in time series form as depicted below: -

$$\text{Log}(GDP)_t = \beta_0 + \beta_1\text{Log}(PRE)_t + \beta_2\text{Log}(PCE)_t + \beta_3\text{Log}(PDS)_t + \mu \dots\dots\dots \text{Eqn 3.5}$$

By stating the error correction model (ECM) from equation 3.3, the model becomes:

$$\Delta\text{Log}(GDP) = B_0 + B_1\Delta\text{logPRE}_{t-1} + B_2\Delta\text{logPCE}_{t-1} + B_3\Delta\text{logPDS}_{t-1} + \Delta\text{ECM}_{t-1} + \sum_t \dots\dots\dots (\text{Eqn 3.6})$$

$\Delta$  = Change

$\sum\text{ECM}$  = Error Correction term

$t - 1$  = variable lagged by one period

$\sum_t$  = White noise residual

To test for the existence of long run equilibrium relationship, the error correction model i.e. equation 3.6 can be conducted by placing some restrictions on estimated long run coefficient of variables. Therefore, the hypothesis for the test is formulated as follows:

$H_0$ :  $\beta_1 = \beta_2 = \beta_3 = 0$  (absence of long run relationship or co-integration)

$H_1$ :  $\beta_1 \neq \beta_2 \neq \beta_3 \neq 0$  (existence of long run relationship or co-integration)

Centered on the results of previous empirical studies, this study hypothesizes certain relationships between the budget implementation variables and the economic growth in Nigeria as:

$\frac{dGDP}{dPRE} < 0$ . The relationship between GDP and public recurrent expenditure is expected to be negative. The inverse relationship signifies that a unit increase in the public recurrent expenditure will bring about a decline in the Gross Domestic Product. The relationship can be expressed mathematically as;  $f'(PRE) < 0$ .

Where;

GDP = Gross Domestic Product

PRE = Public Recurrent Expenditure

PCE = Public Capital Expenditure

PDS = Public Debt Servicing

F= functional denotation

The econometric form of equation 3.2 is represented as:

$$GDP = \beta_0 + \beta_1PRE + \beta_2PCE + \beta_3PDS + \mu \dots\dots\dots \text{Eqn 3.3}$$

Where:

$\beta_0$  = Intercept Otherwise Referred to as the Constant Parameter

$\beta_1 - \beta_3$  = Coefficients of Estimates

$\mu$  = Stochastic or Error Term

It is essential to log-linearize the data on each variable to avoid spuriousity in estimation. Therefore, the above equation is presented in its log-linearized form in Eqn 3.4

$\frac{dGDP}{dPCE} > 0$ . The study also expects that there will be a positive relationship between GDP and public capital expenditures. This can be expressed mathematically as  $f'(PCE) > 0$ . This therefore implies that a unit increase in the public capital expenditure will heighten their level of economic growth measured by Gross Domestic Product.

$\frac{dGDP}{dPDS} < 0$ . The relationship between GDP and public debt servicing is expected to be negative. The inverse relationship signifies that a unit increase in the public debt service will bring about a decline in the Gross Domestic Product. The relationship can be expressed mathematically as;  $f'(PDS) < 0$ .

The model is estimated using time series annual data for the period 1986 – 2014. The data needed for the study are secondary in nature; implying data will be obtained from published sources. Sources of these data include:

- i. Central Bank of Nigeria Statistical Bulletin
- ii. National Bureau of Statistics

The model is estimated using time series annual data for the period 1986 – 2014. The data

needed for the study are secondary in nature; implying data will be obtained from published sources. Sources of these data include:

- i. Central Bank of Nigeria Statistical Bulletin
- ii. National Bureau of Statistics

The estimation procedures for analyzing the subject matter includes the:

a. *Unit Root Test (URT)*

The Unit root is a standard approach in co-integration analysis used for determining the stationarity of time series data. It can either be performed using the Augmented Dickey Fuller (ADF) or the Philip Perron test but this study will use augmented dickey fuller to test the stationarity of data.

b. *Johansen Co-Integration Test (JCT)*

The Johansen’s co-integration test is adopted in this study and it shows the long-run relationship subsisting between the dependent and the independent variables. This is done by evaluating both the trace and maximum Eigen statistics to determine the co-integration rank.

Also some statistical tests would also be conducted in the study. They are given below as:

c. *Standard Error Test (SET)*

The standard error test is done to determine the significance of each independent variable in the explanation of the behaviour of the dependent variable. It is done using the standard error statistics obtained from the co-integration equation of the co-integration test.

d. *Coefficient of Multiple Determinations (R<sup>2</sup>)*

The coefficient of multiple determinations is used to measure the rate at which the behavior of the

dependent variable is explained by the independent variables. It also takes into account the measurement of the behavior that is not explained by the model (Error Term).

e. *Overall Significance of the Model (F-Test)*

The F-test is used to show if the model adopted is statistically significant. This is done on a tail test with the comparison of the table value to the estimated value of F statistics.

f. *Durbin Watson Test (DW Test)*

The DW-test is used to determine the presence of Autocorrelation in a model. It could either show positive, negative or no autocorrelation, depending on the region which the DW statistical value falls.

## VI. ANALYSIS AND INTERPRETATION OF RESULTS

The results of all analytical technique mentioned earlier is presented and interpreted below.

a) *Presentation of Ordinary Least Square Result*

The study used Econometric View (Version 3.1) to analyze data which were extracted on the subject matter. The results from this computation are presented in its raw form in the appendix and interpreted below. In consonance with the identified research gap of ascertaining the short run and long run relationship between the variables, the ordinary least square result showing the short run relationship is presented in the table below:

*Table 4.1 : Ordinary Least Square (OLS) Result*

DEPENDENT VARIABLE	COEFFICIENT OF ESTIMATES	T- STATISTICS	PROBABILITY VALUE
C	10.62513	54.64034	0.0000
PRE	0.303291	4.578548	0.0001
PCE	-0.094486	-1.878675	0.0720
PDS	-0.025217	-0.463320	0.6471

R<sup>2</sup> = 0.910200    Adjusted R<sup>2</sup> = 0.899424    F-STAT = 84.46567    DW-STAT= 0.564577

Source: - Computed Result (See Appendix III)

The coefficient of estimates in the OLS result computed above can be expressed mathematically below:

$$GDP = 10.62513 + 0.303291_{PRE} - 0.094486_{PCE} - 0.025217_{PDS}$$

b) *Interpretation of Ordinary Least Square Result*

The result above shows that the constant parameter is positively related with gross domestic product. It has a positive coefficient of 10.62513 which implies that if all explanatory variables are held constant in the short-run gross domestic product will increase by 10.62513 units

Meanwhile, public recurrent expenditure (PRE) showed a positive coefficient of 0.303291 which implies that a unit increase in the level of public recurrent expenditure will result in a 0.303291 increase in the gross domestic product. Conversely, the coefficient of the public capital expenditure (PCE) showed a figure-0.094486 which implies a negative relationship between public capital expenditure and gross domestic product, therefore, a unit increase in public capital expenditure will lead to a 0.094486 unit decrease in the gross domestic product. In the same vein, the coefficient of

public debt service shows a figure of -0.025217 meaning that a unit increase in public debt service will result in a 0.025217 decrease in Nigeria's gross domestic product.

Only an explanatory variable (public debt service) is in conformity with the prior expectation in the short-run as it shows same relationship with the result in the analysis. Meanwhile, the coefficient of multiple determinants ( $R^2$ ) showed a coefficient of 0.910200 which implies a 91.02% explanation of the behaviour of gross domestic product by the totality of the explanatory variables (PRE, PCE and PDS) on the short-run. The Adjusted  $R^2$  further prove this with the adjusted value of 0.899424 which implies an 89.94% explanation of the behaviour of gross domestic product by the totality of the explanatory variables with the remaining 10.06% behaviour attributed to other variables outside the model otherwise referred to as the stochastic variables.

c) *Tests of Stationarity of Variable (Unit Root Test)*

Performing a unit root test for time series model is considered mandatory to establish the stationarity of the variables in such model. This is more reason why this study considers it necessary to test for the stationarity of the variables in this model based on the following hypothesis.

$H_0$ : -  $X_t$  has a unit root i.e. data is non-stationary

$H_1$ : -  $X_t$  has no unit root i.e. data is stationary

d) *Decision Rule*

If the Augmented Dickey Fuller (ADF) statistics is greater than 5% Mackinnon critical value (in absolute terms),  $X_t$  is stationary, we accept the alternate hypothesis ( $H_1$ ) and reject the null hypothesis ( $H_0$ ). The Augmented Dickey Fuller as duly presented in Table C in the appendix is summarized in table 4.2 and 4.3 below.

Table 4.2 : Unit Root Result at Level

VARIABLES	ADF STATISTICS VALUE	MACKINNO CRITICAL VALUE @ 5%	$H_0$	$H_1$	REMARKS
GDP	0.965604	-2.9750	Accept	Reject	NON-STATIONARY
PRE	-2.175756	-2.9750	Accept	Reject	NON-STATIONARY
PCE	-2.936203	-2.9750	Accept	Reject	NON-STATIONARY
PDS	-2.313260	-2.9750	Accept	Reject	NON-STATIONARY

Source: Author's compilation

The table above shows that all variables are non-stationary before differencing. The ADF statistics of Terms of Trade (TOT) only shows a value lesser than 5% Mackinnon critical value (at absolute value) therefore, we reject the alternate hypothesis ( $H_1$ ) all the variables and accept the Null hypothesis ( $H_0$ ). In order to ensure

the stationarity of data for the remaining variables found to be non-stationary at level, we proceed to test for stationarity at first difference. The result of the first differencing as duly presented in the appendix C is summarized below.

Table 4.3 : Unit Root Result at First Difference

VARIABLES	ADF STATISTICS VALUE	MACKINNO CRITICAL VALUE @ 5%	$H_0$	$H_1$	REMARKS
GDP	-2.134451	-2.9798	Accept	Reject	NON-STATIONARY
PRE	-4.129339	-2.9798	Reject	Accept	STATIONARY
PCE	-3.142752	-2.9798	Reject	Accept	STATIONARY
PDS*****	-2.313260	-2.9798	Reject	Accept	STATIONARY

Source: Author's compilation

Table 4.3 above shows that all variables except GDP are stationary at first difference. This is proven by the ADF statistics of each variable (PRE, PCE and PDS) that shows a value greater than the 5% Mackinnon critical values respectively. Hence, we reject their respective null hypothesis ( $H_0$ ) and accept their alternate hypothesis ( $H_1$ ). In order to ensure the stationarity of data for the last variable found to be non-stationary at level and first differencing we proceed to test for stationarity at second difference.

Table 4.4 : Unit Root Result at Second Difference

VARIABLES	ADF STATISTICS VALUE	MACKINNO CRITICAL VALUE @ 5%	H <sub>0</sub>	H <sub>1</sub>	REMARKS
GDP	-4.328269	-2.9850	Accept	Reject	STATIONARY

Source: Author's compilation

Table 4.4 above shows that the last variable is stationary at second difference. This is proven by the ADF statistics of the variable (GDP) that shows a value greater than the 5% Mackinnon critical values respectively. Hence, we reject their respective null hypothesis (H<sub>0</sub>) and accept their alternate hypothesis (H<sub>1</sub>).

e) Summary of Order of Integration

The summary of the Augmented Dickey Fuller (ADF) test of the unit root is presented in Table 4.6 below.

Table 4.5 : Summary of Order of Integration

Variables	Order of Integration
GDP	I(2)
PRE	I(1)
PCE	I(1)
PDS	I(1)

f) The Augmented Dickey Fuller Test Equations

The result of the ADF test equation carried out on each of the variables is presented in Table 4.7

alongside their respective level of stationarity and lagged period and the corresponding co-efficient of multiple determination (R<sup>2</sup>).

Table 4.6 : ADF Test Equation

Variables	Coefficients	Standard Error	T-Statistics	Probability	R <sup>2</sup>
D(GDP(-1),2)	-1.436506	0.331889	-4.328269	0.0003	0.736869
D(GDP(-1),3)	-0.031733	0.182405	-0.173968	0.8635	
C	-0.001098	0.005284	-0.207855	0.8373	
D(PRE(-1))	-1.407478	0.340848	-4.129339	0.0004	0.691737
D(PRE(-1),2)	0.010129	0.199193	0.050849	0.9899	
C	0.285648	0.091366	3.126421	0.0047	
D(PCE(-1))	-0.956775	0.304439	-3.142752	0.0046	0.547380
D(PCE(-1),2)	-0.116667	0.200527	-0.581800	0.5664	
C	0.174087	0.085942	2.025631	0.0546	
D(PDS(-1))	-0.152233	0.065809	-2.313260	0.0296	0.244765
D(PDS(-1),2)	-0.311112	0.173327	-1.794947	0.0853	
C	2.015285	0.767767	2.624867	0.0148	

Source: Author's compilation

The co-integration test is used in the determination of the long-run relationship that exists between variables. It is in line with the proposition of the Johansen in 1991.

Decision rule: - If the trace statistics (Likelihood ratio) is greater than the 5% critical value at none\*\*, we reject the Null hypothesis (H<sub>0</sub>) which says that there is no long-run relationship and accept the Alternate hypothesis (H<sub>1</sub>) which says that there is long-run relationship between the variables. The table below shows the result of the Johansen co-integration test obtained from the co-integration result as duly presented in the appendix.

Table 4.7 : Presentation of Johansen Co-Integration Result

EIGEN VALUE	LIKELIHOOD RATIO	5% CRITICAL VALUE	1% CRITICAL VALUE	HYPOTHESISED NO OF (CE <sub>s</sub> )
0.617830	48.00603	47.21	54.46	None*
0.467429	22.03503	29.68	35.65	At most 1
0.167638	5.023977	15.41	20.04	At most 2*
0.002582	0.069800	3.76	6.65	At most 3

\*(\*\*) denotes rejection of hypothesis @ 5%(1%) Significant level respectively  
 L.R. test indicates 3(2) co-integrating equation @ 5% (1%) significant level

Source: -Computed Result (See Appendix)

The table above shows that long-run relationship (co-integration) exist Gross Domestic Product (GDP) and the explanatory variables; Public Recurrent Expenditure (PRE), Public Capital Expenditure (PCE) and Public Debt Service (PDS). This is reflected in the likelihood ratio of the first row of the second column of the table that shows a value greater than that of the 5% critical value in the first row of the third column. Hence, the hypothesis of no co-integration (H<sub>0</sub>) is rejected and that of presence of co-integration (H<sub>1</sub>) is upheld.

g) Long-Run Model

From the co-integration result in the Johansen co-integration test above, it could be inferred that there is long-run relationship among the dependent and the explanatory variables. This prompted the need for the establishment of a co-integration model. This is derived from the Johansen co-integration result from which the equation with the lowest log-likelihood ratio is chosen. The equation with the lowest log-likelihood ratio is the first equation with the corresponding value of 80.20625. It is therefore presented as:

$$GDP = - 1.080311_{PRE} + 0.445605_{PCE} + 0.826388_{PDS} - 14.18768$$

$$(0.46272) \quad (0.23033) \quad (0.46883)$$

Source: See Johansen Co-integration result in the appendix III

Note: Standard error statistics are given in parenthesis

From the above long-run equation, public recurrent expenditure showed a negative relationship with gross domestic product on the long-run while the remaining two variables (PCE and PDS) showed a positive relationship with gross domestic product. The constant parameter maintained a negative value of 14.18768 implying that if all explanatory variables are held constant, gross domestic product will increase by 14.18768units on the long-run. There are several reason in literature which results in public capital expenditure yielding a positive result on gross domestic product, one of the likely reason is that as time goes on if government keeps investing in public infrastructure, foreign firms can be motivated to invest in Nigeria since infrastructures such as electricity, good roads are in place. Also, only a thriving economy as well as government can service its loan at maturity, a long run thriving economy is a good impetus for foreign inflow of

foreign capital. While public recurrent expenditure can only have a short run effect. For example, the payment of administrative salaries and wages can only encourage workers to be productive for just a little period of time.

Meanwhile, none of the variables gave the same effect on gross domestic product in the long run as in the short-run while the constant parameter shows the same effect in the long run and the short-run.

h) Error Correction Mechanism

An over-parametized error correction model is required in this analysis and was obtained by using the lag length to ensure that the dynamics of the model is not compromised and properly captured. The result of the over-parametized error correction model (ECM1) is presented in table 4.9 below:

Table 4.8 : Over-Parametized Model (Ecm1)

Dependent Variable = D (GDP, 2)

VARIABLES	COEFFICIENTS	STANDARD ERROR	T-STATISTICS	PROB VALUE
D(GDP(-1),2)	-0.454883	0.188422	-2.414170	0.0266
D(PRE,2)	-0.001079	0.022308	-0.048352	0.9620
D(PRE(-1),2)	-0.000284	0.018886	-0.015035	0.9882
D(PCE,2)	0.016206	0.022105	0.733108	0.4729
D(PCE(-1),2)	0.002653	0.016442	0.161326	0.8736

D(PDS,2)	0.014862	0.009603	1.547708	0.1391
D(PDS(-1),2)	0.000190	0.015173	0.012503	0.9902
ECM(-1)	-0.089651	0.049730	-1.802736	0.0882

R<sup>2</sup> = 0.4402003604 DW-STATISTICS = 1.975039

Source: Computed Result (See Appendix)

The summary of the over-parametized ECM above shows that the coefficient of the ECM is significant with the negative sign (-). It implies it effectiveness in the correction of any deviation that may occur in the long-run. The coefficient is -0.089651 which implies a sharp adjustment rate of approximately 0.09unit to any changes that may occur on the long-run and rate of correction of past deviation in the present period. These means that the present value of GDP adjust very sharply to changes in PRE, PCE and PDS.

In order to attain effectiveness of the model, there is the need to simplify the model to a more parsimonious model. The parsimonious model would be gotten by estimating the equation of only those variables that appear significant in the over-parametized ECM. The table below shows the result of the parsimonious model estimated.

Table 4.9 : Dependent Variables = D(GDP, 2)Parsimonious Model (Ecm 2)

VARIABLES	COEFFICIENTS	STANDARD ERROR	T-STATISTICS	PROB VALUE
D(GDP(-1),2)	-0.445891	0.149235	-2.987848	0.0070
D(PRE,2)	-0.000400	0.013703	-0.029158	0.9770
D(PCE,2)	0.014107	0.014142	0.997504	0.3299
D(PDS,2)	0.014384	0.007370	1.951841	0.0644
ECM(-1)	-0.090423	0.045346	-1.994065	0.0593

R<sup>2</sup> = 0.712104 DW-STATISTICS = 2.014767

Source: Author's compilation

From the result above, the coefficient of the ECM is further proven significant with its conformity to the over-parametized ECM. The value of the ECM shows a negative of -0.090423. This coefficient in it negative form implies that the speed of adjustment of any past deviation to long-run equilibrium in present period. It therefore indicates that the value of the GDP adjust more sharply to changes in the explanatory variables than it was in the over-parametized model.

However, the parsimonious model shows only a variable (PDS) is significant while the remaining variables proved insignificant. This is determined by the evaluation of the probability value of each variable. The corresponding probability of a variable must be less than 10% before it is said to be significant. therefore, it can be deduced from the parsimonious model above that changes in the dependent variable (GDP) is determined by PRE in the short-run while other PDS determines this changes in the long-run.

Furthermore, the table also reveals that PRE is inversely related with GDP with a negative coefficient of 0.000400, which implies that a unit increase in public recurrent expenditure will result in a 0.000400 decrease

in GDP while the remaining two variables (PCE and PDS) maintained a positive relationship with GDP with their respective coefficients given as; 0.014107, and 0.014384. These therefore implies that a unit increase in any of the PCE and PDS in the long-run will result into a increase in the value of gross domestic product (GDP) by 0.014107 and 0.014384 respectively.

The coefficient of multiple determinants (R<sup>2</sup>) showed an approximate value of 0.439115 which implies that the variables that makes up the model can account for approximately 44% of the behaviour of gross domestic product (GDP). The remaining 56% can be linked to white noise which is usually captured by other variables not present in the model.

i) Tests for the Statistical Significance of Parameters

In testing for the statistical significance of each variable, the standard error test is usually employed in long-run analysis. This is done by comparing the standard error statistics with half the coefficient of each variable as given in the Johansen co-integration result in absolute terms. The table below displays the test accordingly in there absolute terms respectively.

Table 4.10 : Test for the Significance of Parameters

VARIABLES	COEFFICIENT	COEFFICIENT/2	STANDARD ERROR	DECISION
PRE	-1.080311	0.5401555	0.46272	Significant
PCE	0.445605	0.2228025	0.23033	Insignificant
PDS	0.826388	0.413194	0.46883	Insignificant

The table above indicates both PCE and PDS are statistically insignificant while GDP is statistically significant. This implies that only public recurrent expenditure (PRE) can significantly explain Gross domestic product (GDP) in the long run. This is also supported in the short run by the probability value of PRE lesser than 5%. On this note, the only statistically significant variable in the short and long run is PRE. i.e. only PRE can significantly explain the variation in GDP.

## VII. IMPLICATION OF FINDINGS

The compass of this study is focused on the impact of budget implementation on Nigeria's economic growth. A radical analysis of the subject matter revealed that in the long run, public recurrent expenditure and public capital expenditure will have a negative and positive relationship respectively with gross domestic product of the country which is in conformity with the 'a priori' expectation, only public debt service does not conform with prior expectation. This is to say that as the Nigerian government keeps implementing recurrent expenditure its positive effect can only be felt for a short period of time afterwards, a negative effect will emerge. The study also reveals that implementing capital expenditure in the national budget cannot yield any form of immediate economic growth, only a sustainable and continuous capital expenditure project such as electricity, good transport system among others within the country will serve as a good investment ground thereby encouraging foreign firms to patronize the country. The over-parametrized and parsimonious ECM also shows the lead value of the variables used in the study i.e it shows the relationship which each variables of subsequent years have with gross domestic product. The result of the overparametrized and parsimonious ECM also conforms with that of the Johanson cointegration which suggest that the implementation of the national budget which is equivalent to the implementation of public recurrent expenditure, public capital expenditure and public debt will yield positive effect on gross domestic product of Nigeria in the long-run. The short run result reveals that the national budget has only be implemented up to 91%.

There is the need to link the findings in this study with the findings of other researchers on the subject matter. Though, there are several researchers who worked on the subject matter but Oke (2013) remains the only researcher that applied the same methodology as the one used in this study. Therefore the findings of Oke (2013) will serve as the basis for comparison in this research. Findings of Oke (2013) was able to reveal the same result using Ordinary Least Square Methodology as the result obtained in this study. The short run findings in this study reveals that in a short while the implementation of the public recurrent expenditure which encompasses the payment of

salaries and wages will lead to productive workers who will give economic productions their best shot, this means economic development can be ensued in the short run. While implementing capital expenditure contribute to economic development but not in the short run. In short the analysis conducted shows that if proper care is not taken, the effect of capital expenditure on the economy can be adverse within a short period of time.

## VIII. SUMMARY, CONCLUSION AND RECOMMENDATION

Investigation into the subject matter was conducted on the basis of empirical, theoretical and analytical investigation done as objectively as possible. Plethora of researches that have evolved over the years relating to this study (empirical review) were given adequate consideration in order to provide an effective benchmark and platform upon which this study is based. The study also carefully diagnosed the variously examined areas of past research works on the subject matter in other parts of Nigeria to objectively establish the most reliable result and conclusion possible. However, the study carefully reviewed theories and empirical studies that relates to the subject matter in order to critically evaluate the problems inherent in previous related study which serves as the research gap which were extensively bridged.. The analysis conducted in this study is categorized into the short run and the long run which is carried out using the Ordinary Least Square (OLS) and the Johanson Co-integration (JCI) analytical technique. The study also included other analysis such as the overparametrized and parsimonious error correction model. The result of the short run analysis indicated an insignificant and negative relationship between Public Capital Expenditure (PCE) and Gross Domestic Product (GDP) applicable to Public Debt Service (PDS) and Gross Domestic Product (GDP). While Public Recurrent Expenditure (PRE) showed a significant and positive relationship with the gross domestic product in the short run. Meanwhile, the long run analysis reveals a positive relationship between Public Capital Expenditure (PCE) and Gross Domestic Product (GDP) and Public Capital Expenditure (PCE) and Gross Domestic Product (GDP). While Public Recurrent Expenditure (PRE) showed a negative relationship with gross domestic product (GDP).The F-test revealed that the overall model is statistically significant in the explanation of the subject matter. The Durbin Watson graph shows that there is absence of serial correlation in the model adopted for the study. Lastly, the goodness of fit of the model (co-efficient of multiple determinant) showed a statistical value of 0.910200 in the short-run indicating that the explanatory variables in the short-run can account for 91.02% changes that occur in Gross Domestic Product (GDP) while the long-run model showed a statistical value of

0.439115 indicating that the explanatory variables can only account for approximately 44% behaviour of Gross Domestic Product (GDP) on the long-run while other variables outside the model (stochastic variables) accounts for the remaining approximately 56%.

It can be generally concluded that as the Nigerian government keeps implementing recurrent expenditure, its positive effect can only be felt for a short period of time afterwards, a negative effect will emerge. The study also reveals that by implementing capital expenditure in the national budget cannot yield any form of immediate economic growth, only a sustainable capital expenditure project such as electricity, good transport system among others within the country will encourage foreign firms to patronize the country as a good investment ground. It can be concluded that in the short run, the implementation of all items in the budget will largely contribute to the development of the Nigerian economy. In the long run, it can be inferred from the analysis that the implementation of all items in the budget will average impact the Nigerian economy. From the foregoing, it can be finalized that other economic factors helps in developing the economy in the long run. Sequel to the findings of the research, the following recommendations are hereby presented for the benefit of researchers, Nigerian government and policy makers:

- i. On the note of the analysis conducted in this study, it is recommended that for the Nigerian government to achieve all round sectorial and economic growth, public capital expenditure and debt servicing should not be taken with levity as their implementation can strongly boost economic growth and development.
- ii. Recommendation for further studies is that upcoming researches should employ the use of more variables in order to boost the coefficient of multiple determination ( $R^2$ ) in the long run.
- iii. The government of the country should not see implementing recurrent expenditure as a strategy for achieving a long run development.
- iv. On the basis of testing the significance of all the variables, only public recurrent expenditure can be relied upon as being significance, therefore, its effect must be checked mate in the future. The study reveals a negative effect on gross domestic product in the long run.

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