Auto Regressive Distributed Lag Analysis of the Impact of Public Expenditure and Economic Growth in Nigeria

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This study examined the impact of government expenditure on economic growth in Nigeria. Time series data for twenty-two years' period were sourced from secondary sources and Auto Regressive Distributed Lag (ARDL) model was used in estimating relationship exists among variables of interest. Real Gross Domestic Product, a proxy for economic growth was adopted as the dependent variable while Total Recurrent Expenditure and Total Capital Expenditure constituted the independent variables. The result of the study shows that the public expenditure has a positive relationship but insignificant impact on the economic growth of Nigeria for the period under study. The study recommends amongst others that government should allocate more of its resources to the priority sectors of the economy such as economic services in the form of agriculture, education, construction as well as to infrastructural development, in order to encourage the growth of the economy.

INTRODUCTION

Finance is a prerequisite for government to perform far-reaching responsibilities not only the provision of goods and services but also to be an agent and catalyst of economic growth and development through numerous programmes and policies (Jumare, 2016). Public expenditure is derived from public revenue which the government incurs for its own maintenance, the benefit of the society and external bodies (Ezeali & Nwoba, 2012). Public expenditure evolved out of the perceived failure of market economics to efficiently and equitably allocate economic resources for social and economic infrastructure development (Agbonkhese, & Asekome, 2014). This failure necessitated the emergence of welfare economics leading consequently to the rapid expansion of the government sector, and by implication, growth in public expenditure. Expenditure patterns of the government usually are categorized into recurrent and capital expenditures, according to the flowchart of government block by Mordi (2010). The former corresponded to government's purchase of current goods and services (labour, consumables, wages and salaries, etc.), while the latter would ideally include not merely investments in infrastructure (roads, schools, hospitals, etc) but also all other expenditures that might contribute to development (Agbonkhese & Asekome, 2014).

Available CBN (2017) statistical data shows that total government expenditure (capital and recurrent) continued to rise throughout the study period. For instance, while government capital expenditure on

economic services and social and community services increased from N43.15 billion and N9.22 billion respectively in 1995 to N261.28 billion and N79.23 billion respectively in 2016, recurrent expenditure on same services increased from N5.92 billion and N13.82 billion respectively in 1995 to N275.6 billion and N807.62 billion respectively in 2016 (CBN Statistical Bulletin, 2017). Government expenditures on these and other services or sectors would be expected to generate a corresponding growth trend in the economy. It is in the light of the above scenario and the huge sums of money spent by the Nigerian government over the years that the study examines the impact of government expenditure on Nigeria's economic growth from 1995 to 2016.

Since 1960, it has become a yearly ritual for the government to allocate public expenditure into various sectors of the economy. Some scholars believe that a rise in government expenditure is necessary for the increase in output and can reverse economic downturns Agbonkhese and Asekhome (2014). Akpan and Abang (2013) and Okoro (2013) in their different studies on the relationship between government expenditure and economic growth concluded that government expenditure has a positive and significant effect on economic growth. Other scholars are of the opinion that a rise in government expenditure (especially when it is funded by borrowing) may impede economic growth. These scholars include Egbetunde and Fasanya (2013), Folster and Henrekson (2001) who suggest in their work that there is no significant relationship between government expenditure and economic growth.

Aruwa (2009) considers Public Finances and Economic Growth in Nigeria. His study did not address the contribution of public expenditure on economic growth but addresses fiscal policy implications in crises era in Nigeria. Olorunfemi (2008) in a study on the relationship between economic growth proxies by GDP and public expenditure in Nigeria surprisingly concluded that there is no link between the gross fixed capital formation and GDP and that public expenditure affects GDP without elaborating the type of relationship. He also failed to analyse the level of relationship between public expenditure and economic growth. Al- shatti (2014) finds a preposterous result as recurrent expenditure exceeded capital expenditure and it is a capital expenditure that increases growth rate. Gong and Zou (2002) find a similar result, while Usman et al, (2011) suggest there could be missing expenditure between release and execution of the project, that there should be strong monitoring of project execution.

What exactly is the gap in literature? Given the lack of consensus among various studies concerning the effects of public expenditure on economic growth, this paper represents an attempt to re-examine the issues in the light of the Nigerian experience. Specifically, it is concerned with determining the quantum of contributions to economic growth in Nigerian public expenditures on economic services and social and community services of both recurrent and capital. Also, the persistent inability of public expenditures to stimulate rapid economic growth in Nigeria in spite of government efforts, coupled with the inconclusive debate in some parts of Nigeria, has made it necessary to further investigate the extent in which public expenditure can influence or contribute to economic growth in Nigeria.

This study, therefore examines the impact of public expenditure on economic growth in Nigeria. The specific objectives of the study are to (i) assess the impact of public expenditure of economic services on the gross domestic product in Nigeria, and (ii) evaluate the impact of public expenditure of social and community services on the gross domestic product in Nigeria. In order to achieve these objectives, two null hypotheses were formulated thus: there is no positive significant relationship between the public expenditure of economic services on the gross domestic product in Nigeria, and there is no positive significant relationship between the public expenditure of social and community services on the gross domestic product in Nigeria

A number of studies have been conducted on public expenditure and economic growth at different times and in different parts of the world. Some of the studies are well documented in the finance literature. However, studying public expenditure and economic growth in Nigeria would be of great significance. The findings of the study will add value to existing literature in Nigeria.

LITERATURE REVIEW

Conceptual Framework
Economic Growth

Economic growth as a concept is viewed differently by different scholars. This is attributed to the condition prevailing at the time of these scholars. Generally, economic growth theory deals with long-run growth trend of the economy, or potential growth path (Branson, 2002). Economic growth refers to an increase in a country's potential GDP, although this differs depending on how the national product has been measured (Nworji, Okwu, Obiwuru & Nworji, 2012). According to Dewett (2005), it implies an increase in the net national product in a given period of time. Todaro and Smith (2006) define economic growth as a steady process by which the productive capacity of the economy is increased over time to bring about rising levels of national output and income. Jhingan (2006) views economic growth as an increase in output. He explains further that it is related to a quantitative sustained increase in a country's per capita income or output accompanied by an expansion in its labour force, consumption, capital and volume of trade. The main characteristics of economic growth are a high rate of structural transformation, international flows of labour, goods and capital (Ochejele, 2007).

Public Expenditure

Public expenditure deals with government spending and the level of liquidity in the economy in order to achieve some stated objectives (Sharp & Slinger 1970). Public expenditure is concerned with the utilization by the government of the nation's resources with regards to the rules, regulations and policies that shape the planning, budgeting, forecasting, coordinating, directing, influencing and governing the inflow and outflow of funds in order to maximize the objective of the institution (Obilonu, 2011). Okoro (2015) defines public expenditure as the value of goods and services provided through the public sector. Public expenditure according to Nwaeze, Njoku and Nwaeze (2014) is the expense of the government for its own maintenance, for the benefits of the society, the economy, external bodies and for other countries. According to Njoku (2005), public expenditure refers to government spending on revenues derived from taxes and other sources.

Theoretical Framework
Keynes' Theory of Government Expenditure

The English economist, John Maynard Keynes popularized the use of government expenditure as a stabilization tool. In his writing of the Great Depression of the 1930s, Keynes argued that output and employment were well below their potential level because there was insufficient total demand. If demand could be increased, output and employment could be expanded and the economy would return to its full employment potential. Moreover, Keynes believed this could be achieved with expansionary fiscal policy. During a recession, Keynes argued that rather than balancing its budget, the government should increase its spending, reduce taxes, and shift its budget toward a deficit. According to Keynes, higher levels of government spending would directly increase total demand. Further, lower taxes would increase the after-tax incomes of households and they would spend most of that additional income, which would also stimulate total demand. Thus, the Keynesian prescription to cure a recession was a larger budget deficit. In contrast, if the economy was experiencing a problem with inflation during an economic boom, a Keynesian analysis called for the restrictive fiscal policy to temper excessive demand. In this case, reductions in government spending, higher taxes, and a shift of the budget toward a surplus would reduce total demand and thereby help to fight inflation. Thus, Keynes rejected the view that the government's budget should be balanced. He argued that appropriate budgetary policy was dependent on economic conditions. According to the Keynesian view, governments should run budget deficits during recessionary times and surpluses during periods when inflation was a problem because of excessive demand.

Musgrave Theory of Public Expenditure Growth

This theory was propounded by Musgrave (1958). 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 economies, the rate of public sector growth tends to fall as the more basic wants are being satisfied.

The Wagner's Law/ Theory of Increasing State Activities

Wagner's law is a principle named after the German economist Adolph Wagner (1883). Wagner advanced his 'law of rising public expenditures' by analysing trends in the growth of public expenditure and in the size of the public sector. Wagner's law postulates that:

i.   The extension of the functions of the states lead 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 to the increase in the national income and will thus result in a relative expansion of the public sector.

EMPIRICAL FRAMEWORK

Many scholarly works have been undertaken to find the impact of public expenditure on other key economic variables. Gregorious and Ghosh (2009) used the heterogeneous panel to investigate the impact of government expenditure on economic growth. The authors employed the GMM technique and discovered that countries with large government expenditure tend to experience higher growth, but the effect varies from one country to another. And therefore effective and efficient expenditure framework is needed. Liu-Chih, Hsu, and Younis (2008) examined the causal relationship between GDP and public expenditure for the US data during the period 1947 –2002. The causality results revealed that total government expenditure causes the growth of GDP.

From the ongoing, it shows however that, there is no consensus in the theoretical literature on the impact of public expenditure on growth (Paternostro et al, (2007) in Usman). Empirically, there are conflicting results of this impact as some studies reflect the significant relationship between Government Expenditure and Economic Growth others proved otherwise. Examining the growth impact of recurrent, capital and sectoral expenditures over the period 1970 – 1993, Ogiogio (1995) in his study observed the existence of a long-run relationship between economic growth and government expenditure. Contemporaneous government expenditures, however, had a more significant effect than the capital expenditures.

In Nigeria, many studies have attempted to investigate the relationship between government expenditure and economic growth, and the impact thereof. Oyinlola (1993) used defence expenditure and economic growth in Nigeria and found a positive relationship between defence expenditure and economic growth. Empirical analysis by Fajingbesi and Odusola (1999) showed that government capital expenditure has a significant positive effect on real output, but that real government recurrent expenditure has an insignificant effect on growth. The study by Ogiogio (1995) indicated a long-term relationship between government expenditure and economic growth. The result also showed that recurrent expenditure exerts more effect than capital expenditure on economic growth. However, some empirical studies in Nigeria suggest no long-run relationship between government expenditure and economic growth (Aigbokhan, 1996; Essien, 1997; Aregbeyen, 2006; Babatunde, 2007). Thus, there appears to be a controversy over the long run relationship between government expenditure and economic growth in Nigeria.

Akpan (2005) used a disaggregated approach to examine the relationship. Components of public expenditure considered in his analysis were capital, recurrent, administrative, economic service, social and community service, and transfers. The study found no significant relationship between economic growth and most components of government expenditure in Nigeria. Nurudeen and Usman (2010) observe that rising government expenditure has not translated into meaningful development as Nigeria still ranks among the world's poorest countries. Using disaggregated analysis approach, they investigated the effect of government expenditure on economic growth in Nigeria in the period 1970-2008 and found that government total capital expenditure, total recurrent expenditure and expenditure on education have a negative effect on economic growth; but rising government expenditure on transportation and communication, and health exerts a positive effect on economic growth.

However, this study faults the extent of disaggregation of the data that constituted variables of research interest in Nurudeen and Usman's study since expenditure on education, transportation and communication and health must have been part of total capital and total recurrent expenditure respectively. Aruwa (2009) observes that such understanding could help to assess the impact on government expenditures and then on deficits arising from a structural deceleration in or from an improvement in the growth potential. He submits that a good knowledge of the structural relation between the non-cyclical component of government expenditure and potential output is key to obtaining a benchmark against which to evaluate the stance of expenditure policy and then of overall fiscal policy.

This study improves on some of the existing studies, especially those of Fajingesi and Odusola (1999) and Akpan (2005) in that it investigates the partial and joint effects of government expenditure on economic growth in Nigeria using certain disaggregated components of government expenditure. It also updates these studies in terms of currency and detailed analysis and contributes to the existing literature on the long run relationship between government expenditure and economic growth in Nigeria. However, the study excludes administrative expenditure in that it is embedded in recurrent expenditure. Onuorah and Akujuobi (2012) examined the trend and empirical analysis of public expenditure and its impact on the economic growth in Nigeria. The study employed Johansen Co-integration and VEC and found that recurrent government expenditure established a long-run relationship with RGDP. Finally, there is no statistical significance between public expenditure variables and the economic growth in Nigeria. The author recommended that a means of checking corruption and misappropriation of public funds be devised by fiscal authorities.

Nworji, Okwu, Obiwuru and Nworji (2012) examine the effect of public expenditure on economic growth in Nigeria for the period 1970 to 2009 using OLS multiple regression on the domestic product (GDP), and various components of government expenditure. The study showed that capital and recurrent expenditure on economic services had an insignificant negative effect on economic growth during the study period. Also, capital expenditure on transfers had an insignificant positive effect on growth. But capital and recurrent expenditures on social and community services and recurrent expenditure on transfers had a significant positive effect on economic growth. There is a critical need by the government to ensure adequate and proper channelling of its expenditures to sectors of high propensity for growth and minimize its recurrent expenditures.

Egbetunde and Fasanya (2013) analysed the impact of public expenditure on economic growth in Nigeria during the period 1970 to 2010 by employing the bounds testing (ARDL) approach. The bounds test suggested that the variables of interest put in the framework are bound together in the long-run. The associated equilibrium correction was also significant confirming the existence of long-run relationships. The findings indicated that the impact of total public spending on growth was negative which is consistent with other past studies. Recurrent expenditure, however, was found to have a little significant positive impact on growth. Therefore, the government should increase its spending on infrastructure, social and economic activities and also check corruption.

METHODOLOGY

The study adopted the ex-post facto design which enables the researcher to observe variables over a long period of time. The econometric methodology, which is basically ordinary least square (OLS) techniques multiple regression analysis model and relevant statistics were employed to enhance the statistical tests for the analysis of macroeconomic time series data considered in this study. The scope of the study is limited to the impact of public expenditure on the Nigerian economy spanning a period of twenty – two (22) years; from 1995 to 2016. For the purpose of arriving at dependable and unbiased analysis, secondary data were employed. These published materials were obtained from the Central Bank of Nigeria (CBN) Statistical Bulletins, National Bureau of Statistics (NBS), Journals, as well as other relevant sources. Data obtained were on variables such as Public Expenditure – Recurrent and Capital Expenditure and Real Gross Domestic Product (RGDP).

Model Specification
The study formulates two models. They are:

Model 1

$$GDP = \lambda_0 + \lambda_1 RPEXA + \lambda_2 RPEXC + \lambda_3 RPEXTC + \lambda_4 REXOES + \lambda_5 CEXES + \mu \tag{1}$$

Dependent Variable: The dependent variable is Gross Domestic Product (GDP).
Independent Variable: The independent variable is recurrent expenditure on economic services measured by Agriculture, Construction, Transport & Communication, Other Economic Services and Capital Expenditure on Economic Services.
Symbolically, we have:

RGDP	=	Real Gross Domestic Product
RPEXA	=	Recurrent Expenditure on Agriculture
RPEXC	=	Recurrent Expenditure on Construction
REXOES	=	Recurrent Expenditure on Other Economic Services
CEXES	=	Capital Expenditure on Economic Services
λ_0	=	Intercept
$\lambda_1, \lambda_2, \lambda_3, \lambda_4, \lambda_5$	=	Regression Coefficients (Slope)
μ	=	Error Term

Model 2

$$RGDP = \lambda_0 + \lambda_1 RPEXE + \lambda_2 RPEXH + \lambda_3 RPEXO + \lambda_4 CEXS + \mu \tag{2}$$

Dependent Variable	=	Real Gross Domestic Product
Independent Variable	=	Education, Health, Other Social and Community Services, Capital Expenditure Social and Community Services

Symbolically, we have:

RGDP	=	Real Gross Domestic Product
RPEXE	=	Recurrent Expenditure on Education
RPEXH	=	Recurrent Expenditure on Health
RPEXO	=	Recurrent Expenditure on Other Social Community Services
CEXES	=	Capital Expenditure on Capital Expenditure Social and Community Services
λ_0	=	Intercept
$\lambda_1, \lambda_2, \lambda_3, \lambda_4, \lambda_5$	=	Regression Coefficients (Slope)
μ	=	Error Term

RESULTS AND DISCUSSION

The result shows that the sign of the coefficient of recurrent expenditure transportation and communication is not consistent with expectations about its relationship with economic growth. Agriculture, construction, other economic services and capital expenditure on economic services are consistent. This implies that recurrent expenditure on transportation and communication has an inverse relationship with economic growth and, thus, exerts a negative effect on economic growth during the period under review. Agriculture, construction, other economic services and capital expenditure on economic services have a direct relationship with and, thus, exert a positive effect on, economic growth. The intercept is negative, suggesting that in the absence of government intervention in economic activities, the economy would, perhaps, be experiencing a negative growth.

With Autoregressive Distributed Lag (ARDL) software, the GDP was regressed on the components of government expenditure and the results below obtained.

TABLE 1
AUTOREGRESSIVE DISTRIBUTED LAG (ARDL)

Dependent Variable: GDP_AT_CURRENT_BASIC_PRI				
Method: ARDL				
Date: 06/17/18 Time: 20:17				
Sample (adjusted): 1995 2016				
Included observations: 22 after adjustments				
Maximum dependent lags: 4 (Automatic selection)				
Model selection method: Akaike info criterion (AIC)				
Dynamic regressors (4 lags, automatic): CURRENT AND CAPITAL_EXPENDITURE_SOCI				
Fixed regressors: C				
Number of models evaluated: 20				
Selected Model: ARDL(4, 4)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.*
GDP_AT_CURRENT_BASIC_PRI(-1)	0.993347	0.246078	4.036721	0.0016
GDP_AT_CURRENT_BASIC_PRI(-2)	0.113057	0.357300	0.316420	0.7571
GDP_AT_CURRENT_BASIC_PRI(-3)	-0.704896	0.317498	-2.220161	0.0464
GDP_AT_CURRENT_BASIC_PRI(-4)	0.636841	0.353942	1.799280	0.0972
RECURRENT_EXP_AGRIC	23.56878	12.87341	1.830811	0.0921
RECURRENT_EXP_CONSTR (-1)	16.59021	9.948298	1.667643	0.1213
RECURRENT_EXP_TRANS (-2)	-16.58358	11.26520	-1.472107	0.1667
RECURRENT_EXP_OTHER(-3)	28.30463	11.45039	2.471936	0.0294
CAPITAL_EXPENDITURE_SOCI(-4)	25.30136	15.33042	1.650403	0.1248
C	559.0424	414.3787	1.349110	0.2022
R-squared	0.999439	Mean dependent var		36323.53
Adjusted R-squared	0.999018	S.D. dependent var		33295.77
S.E. of regression	1043.300	Akaike info criterion		17.04112
Sum squared resid	13061688	Schwarz criterion		17.53705
Log likelihood	-177.4523	Hannan-Quinn criter.		17.15795
F-statistic	2375.162	Durbin-Watson stat		1.681828
Prob(F-statistic)	0.000000			
*Note: p-values and any subsequent tests do not account for model selection.				

Source: Authors' Computation (2018)

GDP = 559.0424 + 23.56878RPEXA + 16.59021RPEXC - 16.58358RPEXTC + 28.30463REXOES + 25.30136CEXES + μ (3)

The t-statistics with their probabilities associated with the coefficients indicate that at 0.05 level of significance, recurrent expenditure on transportation and communication has a negative but statistically insignificant impact on economic growth and that capital expenditure on transfers has a positive but insignificant effect on growth. Agriculture, construction, other economic services and capital expenditure on economic services have a statistically significant effect on economic growth. This is contrary Akpan's (2005) submission of no significant relationship between economic growth and most of the components of government expenditure but in agreement with Ogiogio (1995) who submitted that recurrent expenditure exacted more significant effect than capital expenditure. The joint effect of these components of government expenditure on economic growth is statistically significant as indicated by the computed F-Statistic and its probability. Therefore, the study submits that there is a relationship between public expenditure and economic growth.

The result of the analysis also shows that the explanatory variables included in the model explain about 99% variations in the explained variable. This implies that within the context of the model, government expenditure explained about 99% variability in economic growth during the study period. This high explanatory power shows that the model is a good fit and that these components of government expenditure are important determinants of economic growth in Nigeria.

TABLE 2
AUTOREGRESSIVE DISTRIBUTED LAG (ARDL)

Dependent Variable: GDP_AT_CURRENT_BASIC_PRI				
Method: ARDL				
Date: 06/17/18 Time: 20:25				
Sample (adjusted): 1985 2006				
Included observations: 22 after adjustments				
Maximum dependent lags: 4 (Automatic selection)				
Model selection method: Akaike info criterion (AIC)				
Dynamic regressors (4 lags, automatic): CURRENT AND CAPITAL EXPENDITURE SOCI				
Fixed regressors: C				
Number of models evaluated: 20				
Selected Model: ARDL(4, 4)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.*
GDP_AT_CURRENT_BASIC_PRI(-1)	1.728085	0.239925	7.202598	0.0000
GDP_AT_CURRENT_BASIC_PRI(-2)	-0.152772	0.419242	-0.364400	0.7219
GDP_AT_CURRENT_BASIC_PRI(-3)	-1.079360	0.423483	-2.548768	0.0255
GDP_AT_CURRENT_BASIC_PRI(-4)	0.565813	0.304076	1.860763	0.0874
CAPITAL_EXPENDITURE_ON_E	-15.10688	5.034207	-3.000846	0.0110
RECURRENT_EXP_ON_EDU(-1)	13.90514	5.378851	2.585150	0.0239
RECURRENT_EXP_ON__ON_H(-2)	16.68451	5.129709	3.252527	0.0069
RECURRENT_EXP_ON_C(-3)	-6.960067	5.327922	-1.306338	0.2159
CAPITAL_EXPENDITURE_ON_S(-4)	-18.21129	6.237117	-2.919826	0.0128
C	451.9719	440.6742	1.025637	0.3253
R-squared	0.999489	Mean dependent var		36323.53
Adjusted R-squared	0.999106	S.D. dependent var		33295.77
S.E. of regression	995.3938	Akaike info criterion		16.94711
Sum squared resid	11889706	Schwarz criterion		17.44304
Log-likelihood	-176.4182	Hannan-Quinn criteria.		17.06393

F-statistic	2609.415	Durbin-Watson stat		2.047716
Prob(F-statistic)	0.000000			
Source: Authors' Computation (2018)				
*Note: p-values and any subsequent tests do not account for model selection.				

By inserting the regressed parameters into the model, we have:

$$RGDP = 451.9719 - 15.10688RPEXE + 13.90514RPEXH - 6.960067RPEXO - 18.21129CEXS + \mu \quad (4)$$

The result shows that the sign of the coefficient of recurrent expenditure on social community services and capital expenditure social and community services are not consistent with expectations about its relationship with economic growth. Recurrent expenditure on education and recurrent expenditure on health are consistent. This implies that recurrent expenditure on other social community services and capital expenditure social and community services have an inverse relationship with economic growth and, thus, exert a negative effect on economic growth during the period under review. Recurrent expenditure on education and recurrent expenditure on health are consistent have a direct relationship with and, thus, exert a positive effect on, economic growth. The intercept is negative, suggesting that in the absence of government intervention in economic activities, the economy would, perhaps, be experiencing a negative growth.

The t-statistics with their probabilities associated with the coefficients indicate that at 0.05 level of significance recurrent expenditure on other social community services and capital expenditure on social and community services have a negative but statistically insignificant impact on economic growth and that capital expenditure on transfers has a positive but insignificant effect on growth. Recurrent expenditure on education and recurrent expenditure on health have a statistically significant effect on economic growth. The joint effect of these components of government expenditure on economic growth is statistically significant as indicated by the computed F-Statistic and its probability. Therefore, the study submits that there is a relationship between public expenditure and economic growth.

The result of the analysis also shows that the explanatory variables included in the model explain about 99% variations in the explained variable. This implies that within the context of the model, government expenditure explained about 99% variability in economic growth during the study period. This high explanatory power shows that the model is a good fit and that these components of government expenditure are important determinants of economic growth in Nigeria.

CONCLUSION AND RECOMMENDATIONS

This study contributes to the research effort at an empirical measure of the effect of public expenditure on economic growth. Data analysis revealed that a relationship exists between public expenditure and economic growth. Capital and recurrent expenditures on economic services exert positively. However, the aggregated effect of public expenditure on economic growth is statistically significant. This supports the Keynesian (1936) view of government active intervention in the economy using various policy instruments. Also, as available CBN data on government expenditure and economic GDP exhibit increasing trend, the analysis equally supports the Wagner's (1813) postulate of Ever Increasing State Activity. Consequently, this analysis supports growing evidence that government expenditure has a relationship with and exerts a significant effect on economic growth. The study further concludes that public expenditure considered in this study are important variables in explaining economic growth in Nigeria.

Based on the discussion and findings of this study, the following recommendations are made.

1. The government should increase its expenditure on rural roads and electricity as this will accelerate private sector growth as well as raise the standard of living of poor citizens in the country; which in the long run will boost social and community services.

2. The government should invest in growth-enhancing public expenditure; this should be the priority of the various tiers of government rather than political consideration and rent seeking.
3. The government should put in place adequate control measures or techniques to ensure that funds allocated to the different sectors of the economy are judiciously used for the projects for which they are allocated.
4. The government should cut down on its recurrent expenditure and spend more on capital projects and investments which will go a long way in providing a conducive platform for business activities to thrive in our economy.

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