Macroeconomics and Monetary Economics

Appraisal of Budgeting and Economic Growth in Nigeria

Adebayo Helen Oluwatoyin[1], Miriam Nyikyaa[2], Amos Michael Olushola[3]

Abstract: Federal government of Nigeria budgeted huge sum of money for transport infrastructures and health sector every year. Despite the fund earmarked for transport infrastructures and health sector, Nigerian roads are in bad positions while some roads are death traps and inadequate health facilities bedevil our hospitals. Therefore, this study examines effect of federal government budget on transport infrastructures and health sector on economic growth of Nigeria. The study used ex-post facto design and collected data through secondary source. The study covers Federal Government of Nigeria budgets for the period of 1999 to 2017. The study observed that government spending on transportation infrastructure does not significantly affect economic growth while spending on health has significant effect on economic growth. The study recommends among others that all health agencies within health sectors and other stakeholders should be involved in budget implementation to ensure efficient use of money meant for the sector.

Keywords: budget; transport infrastructure; health sector; economic growth

JEL Classification: O18

Introduction

The Nigerian government has responsibility to provide essential goods, services and good governance to the citizenry which are normally provided through Ministries, departments and agencies (Maritim, 2013). For a government to deliver, it has become a routine at all levels to prepare and approve into law the revenues and expenditures which are made in advance by government for a financial year called budget. Ighodaro & Okiakhi (2010) describe budget as 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’.

[1] Department of Accountancy, University of Jos, Address: P.M.B 2084 Jos, 930001, Plateau State Nigeria, Corresponding author: adebayohelen@yahoo.com.
[2] Department of Accountancy, University of Jos, Address: P.M.B 2084 Jos, 930001, Plateau State Nigeria, E-mail: nyikyaamiriam@yahoo.com.
[3] Department of Banking and Finance, Nnamdi Azikiwe University, PMB 5025, Awka, Anambra State, Nigeria. E-mail: amosdefamous@gmail.com.

In Nigeria, section 81 of the 1999 Constitution as amended requires the President to lay the budget before a section of the National Assembly for subsequent enactment. Ekeocha (2012) opined that through budget, government indicates what to spend, determines what to borrow, and sets policy priorities within overall spending limit so as to influence the economy. Nigerian citizens are always eager to know government budget for the years in order to be able to plan for their businesses. Oke (2013) posited that the issue of budget implementation has been a source of concern to the public considering the important impetus of budget implementation on economic growth.

Federal government of Nigeria budgeted huge sum of money for transport infrastructures and health sector every year. Despite the fund earmarked for transport infrastructures and health sector, Nigerian roads are in bad positions while some roads are death traps and inadequate health facilities bedevil our hospitals. Despite the presence of budget office and budget monitoring teams in public sector, the perennial gap between budget implementation and economic growth is a growing concern among academia, economists, accountants, public analysts among others.

The specific objectives for the study are to:

i. determine the effect of government spending on transportation infrastructure on economic growth in Nigeria.
ii. ascertain how government spending on health affects economic growth in Nigeria.

The study is being guided by the following null hypotheses:

1. Ho: Government spending on transportation infrastructure does not significantly affect economic growth in Nigeria.
2. Ho: Government spending on health does not significantly affect economic growth in Nigeria

Significance of the study

The study will educate the electorate on budget implementation impact on economic growth and demand for government accountability. The study will encourage government to reappraised budget implementation process so that that it can have direct effect on the economy.

Scope

The study covers Federal Government of Nigeria budgets for the period of 1999 to 2017. These periods was chosen because the current civilian government administration commence in 1999.

1. Empirical Review

Abiola (2012) observed that citizens expected that larger size of budget and its appropriate allocation to poor sectors could reduce poverty level. Nevertheless, controversy abounds on whether public budget really drives poverty reduction in Nigeria. Going by this argument, the study examines the impact of public budget indicators such as federally collected government revenue and aggregate expenditure on the poverty incidence. The results show that federally government collected revenue and aggregate expenditure increase poverty incidence in Nigeria.

The study did not specify in its methodology the research design, population and sampling technique with source of data. This shows that methodology employed for the study is clearly stated to induce acceptability of its findings.

Olaoye, Olaoye & Afolabi (2017) examined the impact of implementation of capital expenditure on administration, economic services, socio-community services on the growth of Nigerian economy. The study employed techniques of co-integration and error correction model (ECM).The study discovered that there is strong relationship between capital expenditure implementation on administration, economic services, socio community services, transfer and economic growth of Nigeria. Therefore it concludes that capital expenditure implementation is germane to maintaining and sustaining economic growth in Nigeria. Based on the discovery, the study recommends that government should ensure adequate implementation of capital expenditure in the country.

The study gathered data through secondary data without specifying the research design used for the study. The study adopts model used by Oke (2013) without modification. This shows that the findings of this study are likely to be the replica of Oke (2013) study. Moreover, the problem investigated by the study is not clearly stated because it has confirmed in its statement of problem that “a well-implemented budget helps to translate government policies and programs into outcomes that have a direct, positive impact on people”. Non clarity of statement of the problem does not give credibility to its findings.

Onakoya & Somole (2013) employ expo facto design and three-stage least square simultaneous equations estimation technique to examine the impact of public capital expenditure on economic growth in Nigeria in the context of macroeconomic framework at sectors level. The empirical results revealed that public capital expenditure contributes significantly to economic growth in Nigeria.

Okoro (2013) observed that there is a mixed feeling among academia about government expenditure and economic growth in Nigeria. This mixed feeling has degenerated to inconclusive debate on whether increasing government spending induces economic growth or not. Based on the above, the study investigates whether increasing government spending induces economic growth performance in Nigeria.

The study used Unit Root, Cointegration, and Error Correction test for his data analysis. The researcher found that both the short-run and long-run expenditure has significant effect on economic growth of Nigeria. In line with the findings, we recommend that Government increase both capital expenditure (investment in roads, power supply, transport, and communication) and recurrent expenditure mostly on issues that should attract economic growth. The researcher did not state the research design, population of the study and sampling technique is not stated in methodology. However, the source of data used for the analysis is not known.

Chude & Chude (2013) investigates effects of public expenditure in education on economic growth in Nigeria over a period from 1977 to 2012. 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 on economic growth in Nigeria. The results indicate that total expenditure on Education is high and statistically significant and have positive relationship on economic growth in Nigeria in the long run.

Malgwi & Unegbu (2012) investigate how budget performance differs among Borno state, Bauchi state, Yobe state, Taraba state and Adamawa state in Nigeria. Survey design was used for the study while structured questionnaire was administered on target participants namely Administrators, Accountants, Financial Sector employees, Government Workers and Business representatives. The study discovered that budget performance differs from state to state. The researchers recommend that Nigeria should adopt Balanced Scorecard Budget perspectives. The study did not consider Federal government budget but selected few Northern states.

2. Methodology

This study used *ex-post facto* design because the events have already taken place and the researcher has no control over any of the independent variables. Therefore, secondary data will be used for the study. The population of the study will comprises of Nigerian government budget for the period of 1999 to 2017, which is 19 years budgets. Gross Domestic Product was a proxy for economic growth and government spending on infrastructure for transportation and communication, and health from 1999 to 2017 as contained in the Central Bank of Nigeria statistical bulletin for 1999 to 2017 and Nigeria Bureau of Statistical Bulletins for 1999 to 2017.

The measurements of Independent variables: Budget implementation is measured by the amount government spent on infrastructure for transportation and communication, education, health, agriculture and natural resources Dependent Variable: Gross Domestic Product will be proxy for economic growth. It is the total aggregate value of goods and services produced in a country over a given period (normally a year).

Linear regression model was used to analyze the relationship between the variables. The statistical test of the hypotheses formulated in this study was based on the following models:

$GDP = F(TRCOINF)$ ***eq.1***

$GDP = F(HETH)$ ***eq.2***

Equations 1-2 above can be rewritten in its explicit form as below:

$GDP_{it} = \beta_0 + \beta_1\ TRCOINF + \varepsilon_t$ ***eq.3***

$GDP_{it} = \beta_0 + \beta_1\ HETH + \varepsilon_t$ ***eq.4***

$GDP_{it} = \beta_0 + \beta_1\ TRCOINF + \beta_2\ HETH + \varepsilon_t$ ***eq.5***

Where:

GDP = Gross Domestic Product

TRCOINF = Government spending on transportation infrastructure

HETH = Government spending on health

β is intercept

e is error term capturing other explanatory variables not explicitly included in the model.

3. Data Analysis, Results and Discussion

In this section, the hypotheses stated in chapter one of this study in their null form were analyzed by Regression analysis and Analysis of variance (ANOVA). The decisions reached on hypotheses are based on the result obtained from regression calculation and the tabulated value of the regression distribution.

Decision rule:

If the computed value of regression is less than the critical value, the null hypotheses (Ho) are rejected and the alternative hypotheses (Hi) accepted. However if the value of regression is greater than the critical value, the alternative hypotheses (Hi) are rejected and the null hypotheses (Ho) accepted.

Hypothesis One

Ho: Government spending on transportation infrastructure does not significantly affect economic growth in Nigeria.

Hi: Government spending on transportation infrastructure hast significant effect economic growth in Nigeria.

Table 3.1 a. Anova Result : Transportation Infrastructure on Economic Growth

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2321E+28	1	2321E+26	.147	.706[b]
	Residual	2680E+28	17	1576E+27		
	Total	2703E+28	18			

a. Dependent Variable: gross domestic product

b. Predictors: (Constant), transportation infrastructure

Table 3.1 b. Model Summary for transportation infrastructure on economic growth

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.093[a]	.009	-.050	397028570761 18.09000	.044

a. Predictors: (Constant), transportation infrastructure

b. Dependent Variable: gross domestic product

Table 3.1 c. Regression Coefficient for Transportation Infrastructure on Economic Growth

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	4750E+13	1448E+13		3.280	.004
	transportation and communication infrastructure	-1673E+11	4359E+11	-.093	-.384	.706

Dependent Variable: gross domestic product

The *f*-ratio (.147) shows that government expenditure on transportation infrastructure is not the major determinant in explaining gross domestic product in Nigeria. It can be observed that government expenses on transportation infrastructure do not have a significant effect on the dependent variable based on the *f*-ratio. Government spending on transportation infrastructure explains 9 percent of the variation experienced in gross domestic product. The independent variable is not statistically significant because its significance value is 0.706, which means $P > 0.05$. The government budget for transportation infrastructural facilities is not well implemented. This is an evidence of poor state of our roads in South – East, South – South and some part of South west in Nigeria. Despite the huge sum of money earmarked to fix and maintain federal rods in Nigeria annually, the state of Federal roads in the above three geographical region is in bad state. Within the period cover by this study, government expenses on railway transportation do not have any meaningful effect on Nigerian economy. Cargos that ought to be moved across the country by railways are being moved by trucks and trailers despite the pitiable conditions of our roads.

Decision:

Based on the analysis above, the alternative hypothesis (Hi) is rejected while null hypothesis (Ho) is accepted; which state that Government spending on transportation infrastructure does not significantly affect economic growth in Nigeria.

Hypothesis Two

Ho: Government spending on health does not significantly affect economic growth in Nigeria

Hi: Government spending on health significantly affects economic growth in Nigeria

Table 3.2 a. ANOVA Result : Health on Economic Growth

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	2447E+28	1	2447E+28	162.612	.000[b]
1	Residual	2558E+27	17	1505E+26		
	Total	2703E+28	18			

a. Dependent Variable: gross domestic product

b. Predictors: (Constant), health

Table 3.2 b. Model Summary for Health on Economic Growth

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.951[a]	.905	.900	12267379345819.42600	2.172

a. Predictors: (Constant), health

b. Dependent Variable: gross domestic product

Table 3.2 c. Regression Coefficient for Health on Economic Growth

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-5750E+12	4758E+12		-1.208	.243
	health	4283E+1	33587880008.	.951	12.752	.000

Dependent Variable: gross domestic product

The *f*-ratio (162.612) shows that government expenditure on health is one of the major determinants in explaining gross domestic products in Nigeria. It can be observed that expenditure on health has a significant effect on gross domestic product based on the *f*-ratio, government spending on health explains 90 percent of the variation experienced in gross domestic products in Nigeria. The independent variable is statistically significant because its significance value is 0.00, which means $P< 0.05$. Government expenditure on health sector of the economy is justified by improvement in medical facilities experienced in our primary health care centers and teaching hospitals. This shows that the budget for the period cover by this study for health sector is well implemented.

Decision:

Based on the analysis above, the null hypothesis (Ho) is rejected while alternative hypothesis (Hi) is accepted; which state that government spending on health has significant effect on economic growth in Nigeria.

4. Conclusion and Recommendations

It can be observed from the analysis of hypothesis one that here is no significant positive relationship between Nigerian government budget for transportation infrastructure and gross domestic product. The government budget for transportation infrastructural facilities is not well implemented. This is an evidence of poor state of our roads in South – East, South – South and some part of South west in Nigeria. This result is consistent with Olarewaju & Obisesan (2015) who observed no significant relationship budget implementation and economic growth. Hypothesis two shows that government spending on health has significant effect on economic growth in Nigeria. It is observed from the analysis that government spending on health sector assisted the citizens to be healthy and contribute to the dross domestic products. This result is consistent with Oke (2013); Olarewaju & Obisesan (2015) who discovered a positive and significant relationship between government expenditure on health and social welfares and economic growth.

It can be seen that government spending on health has significant effect on economic growth while government spending on agriculture and natural resources does not significantly affect economic growth in Nigeria.

Based on the finding of this study, the following recommendations are made:

i. Government should increase money earmarked for health sector and monitor the budget implementation very well. All health agencies within health sectors and other stakeholders should be involved in budget implementation to ensure efficient use of money meant for the sector.

ii. It is a known fact that small and medium scale enterprises are catalysts for economic growth and development. Small scale and medium enterprises needs good roads network for distribution of their goods and services. Deplorable condition of roads affects businesses negatively and serves as a cog to the growth of industries in Nigeria. Bad roads also affect transportation of farm produce by farmers. Government should pay more attention to implementation of money earmark for transportation facilities so that most of roads that are in bad position will be fixed and it will help to improve the activities of small and medium scale enterprises. Moreover, government should involve community development associations with budget office and budget monitoring teams in public sector in monitoring money to be spent for transportation infrastructures.

References

Abiola, A.G. (2012). Delays in Enactment of Appropriation Bills in Nigeria: Implications for Capital Budget Implementation. *Discussion Paper Series, No. 1, IDBN 978-50221.*

Central Bank of Nigeria (2017) Statistical Bulletin: *Abuja, CBN.*

Chude, N. P. & Chude,D.I. (2013) impact of government expenditure on economic growth in Nigeria. *International Journal of Business and Management Review, (1)4.*

Ekeocha, P.C. (2012) An analysis of the Federal budgeting process in Nigeria: Implications for institutional reforms for achieving timeliness. *Developing Country Studies* 2(5).

Ighodaro, C.A.U & Okiakhi, D.E. (2010): Does the Relationship Between Government Expenditure and Economic Growth Follow Wagner's Law in Nigeria? *Annals of University of Petrosani Economics,* Vol. 10(2).

Malgwi, A.A., & Unegbu, A.O. (2012). Budget in Nigerian public sector: Need for balanced scorecard perspective. *International Journal of Finance and Accounting*, *1*(2).

Maritim C.F.(2013). The effects of budgeting process on financial performance of commercial and manufacturing parastatals in Kenya. *African Journal of Business Management, 5(2)*

Oke, M.O. (2013). Budget Implementation and Economic Growth in Nigeria. *Developing Country Studies*, *3*(13).

Okoro A.S. (2013) Government Spending and Economic Growth in Nigeria (1980-2011). *Global Journal of Management and Business Research Economics and Commerce 13(5).*

Olaoye C.O., Olaoye F.O. & Afolabi A. J.(2017) Impact of Capital Budget Implementation on Economic Growth in Nigeria. *Global Journal of Management and Business Research: Accounting and Auditing* (17) 3.