

The Role of Public Spending on Construction, Transportation and Communication on Economic Growth in Nigeria

Omokaro, B. E.¹ and Ikpere, O. C.²

^{1,2}*Department of Statistics, Delta State Polytechnic, Otefe-Oghara, Delta State, Nigeria*

Abstract: - This study focused the role of public spending on construction, transportation and communication on economic growth in Nigeria. Secondary source of data collection from the Central Bank of Nigeria Statistical Bulletin was used in this study. The regression analysis was employed for the data analysis. The findings of the study showed that expenditure on construction and expenditure on transportation & communication positively impact on economic growth. It was found that expenditure on construction significantly impact on economic growth while expenditure on transportation & communication does not significantly impact on economic growth in Nigeria within the observed period. The obtained model was found to be adequate with R-square value of 72.7% which indicates a strong adequacy of the model in estimating economic growth in Nigeria.

Keywords: Communication, Construction, Economic growth, Public Spending, Transportation

I. INTRODUCTION

Responsibilities of a government to its citizens includes; security, provision of basic amenities and to enhance growth by providing enabling environment that can drive wealth creation. Government can perform these responsibilities by efficiently allocating proportions of revenue to these sectors. This can come as expenditure on defence, education, servicing national debts and capital investment. Governments also spend on their own maintenance as well as aid other countries and so on.

Public or government expenditure, therefore is the expenses of the government in ensuring common good and that the economy is on course. According to Maku (2009), most nations are getting more involved in economic activities in their various countries and public expenditure has maintained an upward trend over time in virtually all the countries of the world.

Public expenditure is often classified into recurrent expenditure and capital expenditure. The recurrent expenditure refers to the expenditures of government which occur regularly throughout the year. They are made regularly to enable the government to function effectively and sustained. Such government functions comprises of regular salaries of all employees, money spent on the running of essential services or regular maintenance of infrastructural facilities and money spent on administration (Nwaeze, 2010).

Capital expenditure are those expenditures of government that deals on the acquisition of items of permanent nature. Expenditure on capital projects such as buildings, construction of roads, bridges and other permanent assets are all classified in the category of capital expenditure.

Economic growth is basically an increase or growth on the gross domestic product of a nation. Economic growth is an essential ingredient for sustainable development in any nation. This is because economic growth brings about a better standard of living of the people and is usually as a result of improvement in infrastructure, health, housing, education and improvement in agricultural productivity. According to Dewett (2005), economic growth can be seen as an increase in the net national product in a given period of time. Ochejele (2007) identified, high rate of structural transformation, international flows of labour, goods and capital as some major characteristics of economic growth in Nigeria.

Infrastructural development at any level is a strategic driver of economic growth in a country. Experience has shown that such developments serves as a drive for public development in the entire government set out goals, such as transportation, education, communication and healthcare delivery. In the case of Nigeria, public spending on sectors such as electricity, transportation, and health has argued by many scholar to be a waste of taxpayer's. This is because the expected growth and development has not been achieved. The objective of this study is to examine the impact of expenditure on construction and expenditure on transportation and communication on economic growth in Nigeria.

II. LITERATURE REVIEW

For obvious reasons, the relationship between government expenditure and economic growth has continued to generate controversies among scholars in economic literature (Nwaeze *et al.*, 2014). Nwaeze *et al.* (2014) opines that public expenditure on investment and productive activities are expected to contribute positively to economic growth, while government spending is expected to be growth retarding. It is known that government on it part controls the economy through the use of public expenditure. This instrument of government control promotes economic growth in the sense that public investment contributes to capital accumulation.

The beauty of public expenditure in promoting economic growth lies with the way it is been spent.

Ohwofasa *et al.* (2012) examined the nature of relationship between government expenditure in the educational sector and economic development. They explained that with large reserves of human and natural resources, Nigeria has the potential to build a prosperous economy, significantly reduce poverty, and provides its citizens with quality healthcare system, education and infrastructural. They added that despite the country's relative oil wealth, poverty is widespread, and Nigeria's basic social indicators has placed it among the twenty poorest countries in the world as at year 2004 (see World Bank, 2004).

McCreadie (2009) opines that to achieve the goal of economic growth and development in any nation there is need for appropriate measures to be taken. He noted that various economists have come up with various theories and postulations in this regard. Adam Smith postulated a laissez-faire system such that the government should not intervene to allow the market system free access to pursue surplus value, which according to him, will lead to the wealth of nations.

Udoh (2011) examined the relationship between public expenditure, private investment and agricultural sector growth in Nigeria over the period 38 year. The study employed the bounds test and autoregressive distributed lag model and error correction model as tools for data analysis. The result of the study showed that an increase in public expenditure has a positive influence on the growth of the agricultural output. However, foreign investment was found to insignificant impact on the short run on agricultural output.

Study by Narudeen and Usman (2010) found that government total recurrent and capital expenditure have insignificant growth effects while expenditure on education was found to negatively impact government total recurrent. However, expenditure on transport and communication, and health were found to positively impact on economic growth.

Ohwofasa *et al.* (2012) examined the relationship between government spending on education and economic development in Nigeria using a time series approach. The findings of the co-integration analysis shows that there exists long run relationship between variables such as recurrent expenditure on education, capital expenditure on education, human capital development and gross fixed capital formation. The findings indicates that a one year lag of gross domestic product, current level of recurrent expenditure on education, two year lags of recurrent expenditure on education, current as well as two year lags of gross capital formation exhibit positive impact on economic growth in Nigeria.

III. METHODS AND MATERIAL

3.1 Method of Data collection

The source of data for this study was secondary data collected from the Central Bank of Nigeria Statistical Bulletins (2013).

Data obtained comprises of variables such as expenditure in construction and expenditure in transport & communication and Real Gross Domestic Product (RGDP) for twenty years.

3.2 Regression Analysis

The regression analysis is a statistical tool that measures the nature of association that exist between an independent variable(s) and dependent variable. To estimate economic growth using expenditure on construction (ECON) and expenditure on transportation and communication (ETC), we shall use real GDP (RGDP) as proxy for economic growth. The model is specified as:

$$RGDP = f(ECON, ETC)..... (1)$$

Where: RGDP represent the dependent Variable while ECON and ETC represent the independent variables

The mathematical form of this model has the expression

$$Y = \beta_0 + \beta_1x_1 + \beta_2x_2 + \varepsilon6$$

Where:

Y = RGDP and represents n x 1 vector

$\beta_0, \beta_1, \beta_2$ = regression coefficients

X₁ = ECON

X₂ = ETC

ε = Error term or stochastic term

3.3 Data Presentation

Table 1: Real Gross Domestic Product and Secoral Federal Government Expenditures (in Billion of Naira)

Year	RGDP (₦ Billion)	ECON (₦ Billion)	ETC (₦ Billion)
1989	236.70	0.50	0.30
1990	267.50	0.60	0.30
1991	265.40	0.40	0.20
1992	271.40	1.10	0.60
1993	274.80	2.30	2.00
1994	275.50	1.10	0.40
1995	281.40	1.70	1.10
1996	293.70	0.90	2.10
1997	302.00	1.80	1.60
1998	310.90	5.60	1.90
1999	312.20	16.60	11.10
2000	329.20	5.00	3.00
2001	357.00	7.20	33.90
2002	433.20	7.500	29.40
2003	477.50	17.00	22.70
2004	527.60	14.90	8.10
2005	561.90	17.90	8.00
2006	595.80	20.10	9.80
2007	634.30	71.40	32.20
2008	672.20	94.50	67.40
2009	716.90	80.60	90.00
2010	775.30	57.10	42.40
2011	834.00	195.9	13.10
2012	888.90	83.30	23.20
2013	950.10	92.20	18.50

Sources: CBN Statistical Bulletin (2013)

IV. DATA ANALYSIS AND RESULTS

This section deals with the analysis and result of the study.

Multiple Regression Analysis on estimating economic growth using Expenditure on Construction and Expenditure on Transportation & Communication

Table 2: Summary of Multiple Regression Analysis on estimating economic growth using Expenditure on Construction and Expenditure on Transportation & Communication

Dependent Variable: RGDP				
Method: Least Squares				
Sample: 1989 2013				
Included observations: 25				
RGDP= 327.54 + 3.47*ECON + 2.09*ETC				
	Coefficient	Std. Error	t-Statistic	Prob.
constant	327.54	32.17	10.17	0.00
ECON	3.47	0.60	5.71	0.00
ETC	2.09	1.27	1.64	0.11
R-squared	0.727	Mean dependent var	473.81	
Adjusted R-squared	0.702	S.D. dependent var	225.41	
S.E. of regression	122.93	Akaike info criterion	12.57	
Sum squared resid	332493.00	Schwarz criterion	12.71	
Log likelihood	-154.16	Hannan-Quinn criter.	12.61	
F-statistic	29.34	Durbin-Watson stat	1.95	
Prob(F-statistic)	0.00			

Source: Eview7

Findings showed that expenditure on construction and expenditure on transportation & communication has a positive coefficients of 3.4720 and 2.100 respectively with an F-value of 29.35 and a p-value of 0.00 which falls on the rejection region of the hypothesis assuming 95% confidence level (since p-value=0.00 > α = 0.05). The result of the individual contribution of the independent variables to the model found a t-value of 5.72 for expenditure on construction and p-value of 0.00 which falls on the rejection region of the hypothesis assuming 95% confidence level. While the result of the individual variables for expenditure on transportation & communication found a t-value of 1.65 and a p-value of 0.11 which falls on the acceptance region of the hypothesis assuming 95% confidence level. This result indicate that expenditure on construction significantly impact on economic growth while expenditure on transportation & communication does not significantly impact on economic growth in Nigeria within the observed period.

The model was found to be strongly adequate since an R-square value of 0.727 (72.7%) was obtained. This result

indicates that the explanatory variables were able to explained about 72.7% of total variation in the dependent variable of RGDP. This result validates the adequacy of the obtained model in estimating economic growth in Nigeria.

The obtained model can be expressed as:

$$RGDP=327.54 + 3.47*ECON + 2.09*ETC$$

V. CONCLUSION

This study examined the role of public spending on construction, transportation and communication on economic growth in Nigeria. Expenditure on construction and expenditure on transportation & communication was found to positively impact on economic growth. Further findings showed that expenditure on construction significantly impact on economic growth while expenditure on transportation & communication does not significantly impact on economic growth in Nigeria within the observed period. The non significant of the transport and communication sector can be attributed to diversion of funds meant for the sector to personal benefit or unaccounted purpose or embezzlement of the allocated fund by fraudsters. It is important to note that the advantage of public expenditure in promoting economic growth lies with the way it is been spent. The obtained model was found to be adequate with R-square value of 72.7% which indicates a strong adequacy of the model in estimating economic growth in Nigeria. In view of the findings of this study, it is recommended that government should invest more on transportation and communication sector in other to yield positive investment form the sector and equally consolidate on the diversification plan of the government.

REFERENCE

- [1]. Maku, O. E. (2009). Government Spending and Economic Growth. *Applied Economics*, Vol. 26, pp. 84 – 94.
- [2]. McCreddie, K. (2009). *Adam Smith's The Wealth of Nations: A Modern-day Interpretation of an Classic*. Oxford: Infinite Idea.
- [3]. Narudeen, A. & Usman, A. (2010). Government Expenditure and Economic Growth in Nigeria , 1980-2007: Disaggregated Analysis. *Business and Economics Journal*, Volume 2010: BEJ-4. [online] Available: <http://astonjournals.com/bej> (12 August 2012).
- [4]. Nwaeze C., Njoku, R. & Nwaeze, O. P. (2014). Impact Of Government Expenditure On Nigeria's Economic Growth (1992 – 2011). *The Macrotheme Review*, 3(7): 79-87.
- [5]. Nwaeze, C. (2010). *Public Financial Management: Theory and Practice*. Reconciliation Publishers Limited, Aba.
- [6]. Ochejele, J. J. (2007). *Economic Analysis*. Ichejumu Press, Jos.
- [7]. Ohwofasa, B. O., Obegh, O. H. & Mercy, Atumah, M. (2012). Impact of Government Expenditure in Education on Economic Growth in Nigeria, 1986-2011: A Parsimonious Error Correction Model. *African Journal of Scientific Research*, 10(1): 587- 598.
- [8]. Udoh, E. (2011). An Examination of Public Expenditure, Public Investment and Agricultural Sector Growth in Nigeria: Bounds Testing Approach. *Journal of Business and Social sciences* , Vol. 2(1), 285-292.
- [9]. World Bank (2004). World Development Indicators 2004 on CD-ROM, World Bank, Washington D.C.