IMPACT OF PUBLIC SECTOR SPENDING ON ECONOMIC GROWTH IN NIGERIA (1981-2015)

[1]Ogbonna, Chiemela Fortune & [2]Azubike, Joseph U.B
[1&2]Department of Accounting
Michael Okpara University of Agriculture, Umudike, Umuahia.
[1]chiemelafortune@gmail.com
+2347032291466
[2]jubelazubike@yahoo.com
+2348033503747

ABSTRACT

This study examines the impact of public sector spending on economic growth in Nigeria from 1981-2015. The annual data were sourced from the CBN statistical bulletin. Ordinary Least Square method of multiply regression analysis was used to analyze the data. The result showed that, education expenditure has a significant impact on GDP. Health expenditure has an inverse relationship between GDP and Health service whereas, other community services has no impact on GDP. It is recommended that government of Nigeria should use tax revenue to improve social community services in Nigeria.

Keywords: *GDP, Education expenditure, Health expenditure& Other Services expenditure.*

Introduction

The need to improve and impact on the public sector by the government is a basic responsibility expected from the government machineries. The services of public sector, impact on every citizen of the nation, both tax payers and non-tax payers. Public sector spending differs according to country. That notwithstanding, in Nigeria, public sector involves the services of the military, police force, the primary health care, public roads and other services as may be provided by the government from time to time to improve the welfare of the citizens. Despite the policies of privatization and colonization in the various part of the world, Nigeria inclusive, the government keeps employing higher number of workforce to meet up with increasing demands of the public needs.

The link between government expenditure and economic growth is a critical subject of analysis as the two are integrated (Stieglitz, 1989). Government expenditure has been seen to boost productivity but at the same time, it has been seen as impediment to development because of the way it is financed. That is, borrowing to finance public expenditure government compete with private investors for capital thereby, crowding out private investment and instigating enormous foreign debt burden according to world bank report 1991.

Nevertheless, development study literatures based on mercantilist ideology support government involvement roles in the economy due to market failures, public goods, and externalities. Amanja (2005),reported that government expenditure is indeterminate of economic growth. The Nigerian economy since independence has been a mixed economy and this study is set to research on the role of government expenditure components of economic growth of Nigeria in the past years.

In the past decades numerous empirical research studies have been carried out towards identifying the components of public expenditure that bear significant association with economic growth. There have been various debates among scholars about the relationship between the impact of public sector expenditure and the economic growth in Nigeria. Some scholars agreed that increase in government expenditure on socio-economic activities encourages economic growth. This is evident on government expenditure on education and health sectors because it will raise and sustain productivity of labor which increases the growth of national output. On the other hand, some scholars are of the opinion that, increase in the government expenditure can slowdown the economic performance of the nation such that in an attempt by the government to meet the high public expenditure.

Some scholars also argued that increase in government expenditure on socio-economic and physical infrastructures encourage economic growth. For instance, government expenditure on health and education raises the productivity of labor and increase the growth of national output. Similarly, expenditure on infrastructure such as roads, communication, power, bridges etc, reduces costs of production, increases private sector investment and profitability of firms. There by, fostering economic growth. Al-Yusuf &Couray (2009), also Abdullah (2000) including Ranjan and Sharma (2008).

The expansion of government expenditure contributes positively to economic growth. Furthermore, if government increases borrowing especially from the banks in order to finance its expenditure, it will completely crowd-out the private sector, by reducing private sector investments. Government activity sometimes produces misallocation of resources and impedes the growth of national output. Studies conducted by Barro (1991), Engen and Granger (1987), suggested that large government expenditure has negative impact on economic growth. Government expenditure in Nigeria has continued to rise due to the huge income from the production and sales of crude oil, and the increased demand for public (utilities) goods like roads, communication, power, education and health.

Statement of Problem

It is obvious that Nigerian government spends huge amount of money on government expenditure yearly in the provision of social goods and services to the citizens. In spite of these expenditures, the public sector has been criticized for its major shortfalls. This situation has posed a problem that requires an investigation into the use of public funds in the provision of social goods for the benefits of the people. It can be argued that, there is no positive correlation between public expenditure and economic growth. Hence this study is embarked on to research into this concept particularly within the Nigeria context with a view to ascertaining results.

Objectives of the study

The main objective of this study is to determine the impact of public sector spending on economic growth in Nigeria.

Specifically, the study sought to:

1. Examine the impact of health expenditure on economic growth in Nigeria.
2. Ascertain the impact of education expenditure on economic growth in Nigeria.
3. Find the impact of other social services expenditure on economic growth in Nigeria.

Research Questions

1. What is the impact of health expenditure on economic growth in Nigeria?
2. What is the effect of education expenditure on economic growth in Nigeria?
3. What is the impact of other social services expenditure on economic growth in Nigeria?

Research Hypotheses

$H_0$1: public sector spending on health does not impact on the economic growth in Nigeria.

$H_0$2: there is no significant relationship between public sector spending on education and economic growth in Nigeria.

$H_0$3: public sector spending on other social services does not have significant relationship with economic growth in Nigeria.

Literature Review

Conceptual Framework

The importance of social community services to the economic growth of Nigeria over the years has been responsible for the huge funds government budget to it. Over the years, the size, structure and growth of government expenditure have tremendously increased and seems to become complex. The challenges of raising additional and alternative sources of revenue to meet the ever increasing needs of governance have made it interesting to investigate on government activities, especially its expenditures on the social community services. Pigou (1928), stated that in every developed society there are various forms of government organizations responsible for different activities to enhance output. The government authority whether central or local is endowed with functions and duties, the detailed nature of which varies in different places. These duties involve expenditure and require also the raising of revenue.

Theoretical Framework

This study is supported by the Endogenous Growth Theory. This theory states that, if productivity is to increase, the labor force must continuously be provided with more resources. In this context, resources include physical capital, human capital and knowledge capital. This implies that, the only way a government can affect economic growth, at least in the long run, is through its impact in investing in human capital, education, health, including research and development. Reduction of growth in these models occurred when public expenditures deter investment by creating tax wedges beyond necessary to finance their investments or taking away the incentives to save an accumulated capital (Folster and Henrekson, 1997).

Empirical Review

Agbonkhese(2014), studied on the impact of public expenditure on the growth of Nigerian economy (1981-2011) using ordinary least square (OLS) to analyze secondary data from statistical bulletin and the result showed a good fit from the coefficient of determination (R^2) and the f-statistic. The empirical result revealed that public expenditures over the years have not adequately translated to the desired economic growth and enhancement of the standard of living.

Okoro (2013), studied on the effect of government spending and economic growth in Nigeria (1980-2011), using secondary sources of data and the result showed that none of the variables was stationary at zero level. This means they all have unit roots and the study concluded that, there exists a long-run equilibrium relationship between government spending and economic growth in Nigeria.

Constantinos (2009), studied the impact of government spending and economic growth: evidence from the south eastern Europe between 1995 to 2005. The results indicated that out of the five variables used in the estimation, government spending on capital formation, development assistance, private investment and a proxy for trade-openess all have positive and significant effect on economic growth, whereas the remaining one, population growth, is found to be statistically insignificant.

Akwe (2014), studied the relationship between public social expenditure and economic growth in Nigeria, data was gathered from the secondary sources and analyzed using (OLS) method. The result showed that there is a positive relationship between aggregate social expenditure, education as well as health and real gross domestic product. The results of the study support Wagner's law and reject the hypothesis that public expenditure amplify the economic growth at both aggregate and disaggregate levels.

John (2013), studied on the impact of public expenditure components on economic growth in Kenya from 1964 to 2011. The result showed that on average public expenditure and potential economies are linked by a long-run relationship. This suggest that increased economic growth would differ quite considerably across sectors and in order to realize the expected economic growth, the country performance will largely depend on the efficiency of scaled-up expenditure.

Robinson (2014), studied on government expenditures and economic growth: the Nigerian experience. Data were gathered from secondary sources from 1980-2010 via the CBN statistical bulletin and analyzed using regression model and the result showed that enhanced government expenditures will increase inflow of better living, inflow of foreign and local businessmen and relevant capital that will enhance growth and development of an economy. The work also discovered that there is inverse relationship between government expenditures on health sector and economic growth in Nigeria. This indicates that government expenditure on health sector is not enough, the study also discovered that there exists a long-run relationship between government expenditures on educational sector in Nigeria is not enough to transform into growth and development of the nation and this can be seen as the reason for constant strike actions in Nigerian education sector, in the period under review.

Kareem (2014), studied on the impact of public sector spending on economic growth of Nigeria, using data from 1960-2010 obtained from the central bank statistical bulletin which was analyzed, using regression and correlation analytical tool, the study concluded that the government recurrent and capital expenditure have significant influence on economic growth in Nigeria. More so, the result of disaggregated analysis concluded that agriculture, social and community services, health and other services are significant variables of government spending contributing to economic growth in Nigeria.

Michael (2014), studied government consumption spending inhibits economic growth In the OECD countries, using panel data from 1999-2011 for 31 OECD countries. The result of the analysis showed that, a one percent increase in net government consumption spending relative to GDP reduces economic growth by nearly one percent per annum. While increased public social spending and lower growth are associated, it is not possible to robustly conclude that social spending reduces growth. The study further stated that a timid policy conclusion would be that for a given level of public spending, more spending on investment goods and less on consumption goods should increase growth significantly.

Nazar (2013), studied government expenditures and its impact on poverty reduction: empirical from Sistan and Baluchestan province of Iran. The study found that there is relationship between government spending and poverty rate in area of the study by examining effects of the budget expenditure in 1978-2008 years on poverty reduction. The study also investigated income distribution of 420 household in region in 2010 and estimated government expenditure impacts on poverty reduction by using Autoregressive Distributed Lag (ARDL) technique. As shown in the results, constructive expenditures have positive effect on poverty reduction.

Omo (2015), researched on oil revenue, public spending and economic growth relationships in Nigeria, using time series data from 1980-2012 which was analyzed using the following econometric models; ordinary least square, co-integration, vector error correction and granger causality to determine the direction of causality and the magnitude of impacts of the variables. The result revealed that, oil revenue granger caused both of total government spending and growth, while there was no-causality between government spending and growth in the country.

Greg (2014), researched on the determinants of public expenditure on educational infrastructural facilities and economic growth in Nigeria using data from the CBN, NBS and World Bank. The result indicated that public expenditure on education has a significant impact on economic growth in Nigeria.

Research Methodology

Study Design

An ex-post facto design was used for this study because data for the study is already in the public domain and as such cannot be doctored by the researcher.

Method of Data Collection

The data for this study was obtained from the Central Bank of Nigeria statistical bulletin as a secondary source. The time span of the data is from 1981-2015. The data for dependent variable for this study is GDP proxy for economic growth while, the data for independent variables were government expenditures on Education, Health and Other social services such as roads, bridges etc.

Method of Data Analysis

In order to analyze the data gathered for this study and obtain results, this study adopts the econometric model. The ordinary least square method (OLS) that involved the use of regression analysis was used. This will be used to examine the impact of public sector spending on economic growth in Nigeria.

Model Specification

The model contains GDP as the dependent variable while total expenditure on health, total expenditure on education and total expenditure on other social community services are independent variables. This specifically, gives the estimation as:

GDP = f (ESS, HSS, OSS)… (1)

Where,

GDP = Gross Domestic Product
ESS = Education Social Services
HSS = Health Social Services
OSS = Other Social Services

The model ofOkafor (2012) is adopted in this research, which is modifiedthus into econometric model as follows:

$GDP = \beta_0 + \beta_1 ESS + \beta_2 HSS + \beta_3 OSS + \mu_t$… (2)

Where:

GDP = Gross Domestic Product
β_0 = intercept term
β_1 = coefficient of education expenditure
β_2 = coefficient of health expenditure
β_3 = coefficient of other social and community services expenditure
μ_t = error term

DATA ANALYSIS AND INTERPRETATIONS

Table 4.2 Model Summary of Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.919[a]	.845	.830	51109.32735

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	441364249618.523	3	147121416539.508	56.322	.000[b]
	Residual	80977063616.895	31	2612163342.480		
	Total	522341313235.417	34			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-1058.294	10880.508		-.097	.923
	Education	2309.333	367.887	2.212	6.277	.000
	Health	-2026.493	543.501	-1.222	-3.729	.001
	OSS	-224.360	218.537	-.159	-1.027	.313

The regression result is as follows:

GDP = (1058.294) + 2309.333ESS - 2026.493HSS – 224.537OSS
(-0.097) (6.277) (-3.729) (-1.027)

The data used for this analysis are Gross domestic product of Nigeria (dependent variable), education social service expenditure, health social service expenditure and other social and community service expenditures (independent variables) from 1981 to 2015.

FINDINGS

The analysis showed that a unit increase in education service expenditure while keeping health service and other social service expenditures constant will on the average increase the GDP by 2309.333. A unit increase in health expenditure while keeping education and other social service expenditures constant will lead to a reduction of 2026.493 in the gross domestic product of Nigeria. A change in other social and community service expenditure while keeping expenditure on education and health constant will lead to a reduction of 224.537 on the GDP. When education, health and other social expenditure tend to zero, the GDP will be -1058.294.

The t statistic in parenthesis shows that education social expenses of 6.277 with 0.000 significant value is statistically significant at 5% significant level. This shows that education social service expenditure hasimpacts on the GDP. The t value for health social service expenditure is -3.729 with 0.001 probability value, which shows an inverse relationship between the gross domestic product and health social service. The probability value for other social and community service expenditure is 0.313 which is not statistically significant at 5% significant level. This show that other social and community service expenditure does not have any impact on the GDP.The correlation between the dependent variable (GDP) and the independent variable (education, health and other social service expenditures) is 91.9%. This shows a strong positive relationship between the dependent variable and the independent variables.Coefficient of determination (R^2) of 0.845 shows the proportional variability in GDP attributable to education social services, health and other social service expenditure is 84.5%.This means that 15.5% of the variations is explained by other variables which are not included in the model but is denoted by the error term. The p-value of the model is 0.000 which is less than 0.05 implies that the model is adequate for the prediction of the impacts on the gross domestic product of Nigeria.

CONCLUSION

Following the above result, the study concluded that the null hypothesis (Ho) is rejected and the alternative hypothesis (H_1), which states that social, and community services expenditure like education, health and other social and services have impact on the gross domestic product of Nigeria (1981-2015).

RECOMMENDATIONS

Base on the general findings of the study, the following recommendations are made:

- Government should improve on its policies on education as well as increase the funding of the sector.
- Considering the role of health sector to the economy, there is need for more funding and upgrading of health facilities in the country since this has direct impact on GDP.
- Other social community services such as roads, bridges and market centers should be given proper attention considering their roles in commercial activities.

Government needs to improve on its tax system so as to generate substantive revenue to fund its social services.

References:

Abdullah, H.A., (2000). The Relationship between Government Expenditure and Economic Growth in Saudi Arabia.***Journal of Administrative Science, 12(2): 173-191.***

Agbonkhese, A.O., (2014). Impact of Public Expenditure on the Growth of Nigerian Economy. ***European Scientific Journal, 10(28).***

Al-Yusuf, Y., (2000). Does Government Expenditure Inhibit or Promote Economic Growth: some empirical evidence from Saudi Arabia.***Indian Economic Journal 48(2).***

Amaja, D. A., (1989). "Is Public Expenditure Productive" ***Journal of Monetary Economics. 23, 177-200***

Barro, R. (1991). Government Spending in a Simple Model of Endogenous Growth. ***Journal of Political Economy, 98(5): 103-125.***

Constantinos, A. (2009): Government Spending and Economic Growth: Econometric Evidence from the South Eastern Europe.***Journal of Economic and Social Research, 11(1).***

Couray, A., (2009). Government Expenditure, Governance and Economic Growth. ***Comparative***

Economic Studies, 51(3): 401-418.

Engen, R.F. & C.W.J., Granger (1987). Co-integration and Error Correction: Representation, Estimation and Testing. ***Econometric, 55:251-276.***

Folster, S. &Henrekson, M. (1997): Growth and the Public Sector; A critique of the critics. ***The Research Institute of Industrial Economics working paper No. 492.***

John, N.M., (2013). The Impact of Public Expenditure Components on Economic Growth in Kenya.***International Journal of Business and Social Science, 4(4)***

Kareem, R.O, Bakare, H.A, Ademoyewa, G. & Bashir, N.O. (2014): The Impact of Public Sector Spending on Economic Growth of Nigeria. ***Journal of Economics and Sustainable Development, 5(3)***.

Michael, C., (2014). Government Consumption Spending Inhibits Economic Growth in thw OECD Countries.***JEL.043; 047. University of Miami***

Okafor, R.G (2012). Tax Revenue Generation and Nigerian Economic Development.***European Journal of Business and Management, 4(9): 49-57.***

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

Pigou, A.C. (1928): A study in Public Finance. ***Macmillan, London.***

Ranjan, K.D. & Sharma C. (2008)., Government Expenditure and Economic Growth: Evidence from India. ***The ICFAI University Journal of Public Finance, 6(3): 60-69.***

Robinson, M.O., (2014). Government Expenditures and Economic Growth: the Nigerian Experience***. Mediterranean Journal of Social Sciences, 5(10).***

Stieghtz, J.E.(2000). Economics of the Public Sector.***W.W Norton and Company***