

Impact of Public Expenditure on Economic Growth in Nigeria

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Abstract

This study investigated the impact of public expenditure on the Nigerian economy. This was done by utilising economic data available in statistical tables. The data used for this study are GDP, and public expenditure variables like education expenditure, health expenditure, agricultural expenditure and transport and communication expenditure. GDP was the dependent variable while all other variables representing public expenditure were included in the independent variables. In order to accomplish the set out objectives of this study, two research hypotheses (Ho1 - Ho4) were formulated which were tested via a number of analytical techniques. These are the Augmented Dickey Fuller (ADF) Unit Root Test and the ordinary least squares regression test. These tests were carried out with the aid of e-views statistical software package. Based on the results gotten, the null forms of all the hypotheses were rejected while the alternate forms were accepted. The results revealed that public expenditure had a significant effect on the Nigerian economy. The study ended by giving recommendations considered very useful

I. INTRODUCTION

1.1 Background of the study

Sustained and equitable economic growth is clearly a predominant objective of public expenditure policy. Public expenditure plays an important role in physical and human capital formation over time. Government performs two functions; protection and provision of certain goods (Adbullah (2000) and Yousif (2002). protection function consist of the creation of the rule of law and enforcement of property rights which help minimize risk of criminality and external aggression. Under the provision of public goods are health, education, power, agriculture, transportation etc. Many political philosophers

like Hobbes and Locke considered the hypothetical disadvantages of life without government (Miles, 2003).

The ideal size of government is not the problem of the economic theory. But, economic theory tells us to examine cost and benefit in order to determine whether resources are allocated in a manner that increase or decrease economic growth. The basic economic policy of the good society is public expenditure in line with future economic growth and well being. For example, expenditure on health and education raises the productivity of labour and increase the growth of national output. Similarly, expenditure on infrastructure such as roads, Communication,

power reduces productions cost and increases private sector investment and profitability of firms thus fostering economic growth. Supporting this view, Scholars such as Yusuf, Abdullah, Rajan and Cooray concluded that expansion of government expenditure contribute positively to economic growth.

Unfortunately, rising government expenditure has not translated into meaningful growth and development in Nigeria is ranked among the poorest nation in the world. Therefore, this study is embarked to determine the impacts of public expenditure and its effects on economic growth and development in Nigeria.

1.2 Statement of the problem

The central problem of this study is how effective public expenditure have been in the areas of promoting sustainable economic growth in Nigeria and how it can be used as a tool to control policy inconsistency and wasteful spending of the government. The researcher is of the view that education is meaningless if the acquired knowledge cannot be used to solve some problems in areas for which the knowledge was acquired. Knowledge of the effect of public expenditure on economic growth of Nigeria without being able to apply it in the solutions of related problem is meaningless and poses a problem.

Government in their different economic activities and policy formulations whether short term or long term usually encounters some problems which needs to be solved. Without solving these problems, government might not be able to formulate and implement of policies which is

capable to put the economy along the path of sustainable economic growth and development. Knowledge of the effects of public expenditure on economic growth and the application of this knowledge in the solutions of some problems encountered by different policy makers in their short term or long term economic activities with a view of arriving at a specific and active policy is a problem which this study will attempt to address.

1.3 Objective of the study

This research is designed to determine the impact of public expenditure on economic growth in Nigeria. Particularly, the study is expected to achieve the following objectives:-

To examine the effect of education expenditure on the growth rate of Gross Domestic Product.

To examine the link between transport and communication expenditure and the growth rate of Gross Domestic Product (GDP)

To identify the contributions of health expenditure to the growth rate of Gross Domestic Product.

To examine the effect of Agricultural expenditure on the growth rate of Gross Domestic Product.

1.4 Research questions

This study is designed to investigate and determine the impacts of public expenditure on economic growth measured by the growth rate of gross domestic product with special reference to Nigeria. In order to achieve this, the following research questions will be used to direct the investigations.

Does education expenditure have any impact on the growth rate of gross domestic products?

Does transport and communication expenditure have any impact on the growth rate of gross rate of gross domestic products?

To what extent has health expenditure contributes to the growth rate of gross domestic product?

What is the relationship between agricultural expenditure and the growth rate of gross domestic product?

1.5 Research hypotheses

The following hypotheses will be formulated based on the objectives of the study.

Hypothesis I

Ho: There is no significant relationship between education expenditure and Gross Domestic Product

Hypothesis II

Ho: There is no significant relationship between transport and communication expenditure and the growth rate of Gross Domestic Product.

Hypothesis III

Ho: There is no significant relationship between health expenditure and the growth rate of Gross Domestic Product.

Hypothesis IV

Ho: There is no significant relationship between agricultural expenditure and the growth rate of Gross Domestic Product.

1.6 Significance of the study

Because of the important role public expenditure plays in the economy; this study will be significant and of immense benefits to different interest groups.

It will create awareness in the minds of government policy makers during policy

formulations to which the result of this study shall provide a useful input so as to control wasteful spending.

It would suggest ways by which the Federal Government can develop an effective method of Internally Generated Revenue (IGR).

It would be of great value as a source of reference to Management students who may wish to carry out further research in the area of public expenditures and economic growth.

It would also enlighten non management students on the impacts of public expenditure on economic growth.

This study will be useful in developing other public sector of the economy in Nigeria and it will contribute to the effectiveness of public sector and other industries.

1.7 Scope of the study

This study will be concerned primarily with the analysis of public expenditure and economic growth of the country. In particular, the Nigerian budget showing its revenues and expenditure will be reviewed between 1980 - 2012.

2. LITERATURE REVIEW

2.1 Theoretical framework.

2.1.1 Wagner's law of increasing activities

Wagner's law cited in Likita (1999) stated that "as per capita income of an economy grows, there will be increase in the number of urban centres with the associated social vices such as crime which requires the intervention of the government to maintain law and order and these interventions by the government have lots of implications leading

to an increase in government expenditure. According to Wagner, there are inherent tendencies for the activities of different layers of a government (such as central and state governments) to increase both intensively and extensively. There is a functional relationship between the growths of an economy, from the original version of this theory, it is not clear whether Wagner was referring to an increase in:

Absolute level of public expenditure.

The ratio of government expenditure to GNP.

Proportion of public sector in the total economy

2.1.2 Peacock wise man's model

This theory looked at increasing public expenditure from the social-political perspective. Government expenditure will increase as income increases but because the leaders want re-election into political offices, so more infrastructures must be provided in order to convince the electorates that their interests are being catered for by the people they voted for.

3. RESEARCH METHODOLOGY

3.1 Research design

The type used here is the ex-post facto research design. This is geared for the purpose of obtaining data to enable the researcher test hypothesis or answer research question. Based on the above statement, the study presents empirical and theoretical analysis of the effects of public expenditure on economic growth of the country.

3.2 Sources of data collection

The main source of data for this research will be the secondary sources like published journals, the

internet and related textbooks on the subject matter.

3.3 Techniques of data analysis

The ordinary least square (OLS) method was used. The following statistics will be used to test for the statistical validation of the relationship between the variables of the study.

(i) R - Squared (R^2)

The co-efficient of determination. It determines the proportion of variation of the ex-post facto variables. It provides an indication of how well the model fits the data. The value of R^2 lies between 0 and 1

(ii) F - Statistics

This tests the statistical significance of R^2 . It implies the null hypothesis against the alternative hypothesis.

3.4 Model specification

In order to test the hypothesis, the variables shall be built into a functional relationship.

$$GDP = F(EDU, TRACO, HEA, AGR,)$$

Where:

GDP = Gross Domestic Product

EDU = Education expenditures

TRACO = Transport and communication.

HEA = Health expenditures

AGR = Agriculture expenditure

The variables are expressed as

$$GDP = b_0 + b_1EDU + b_2 TRACO + b_3 HEA + b_4 AGR + U_t$$

Where:

GDP = Dependent variable

EDU, TRACO, AGR, HEA = Independent variables

b_0 = Regression constant
 b_1 - b_4 = Regression parameters
 u = Stochastic error term.

3.5 Estimation and validation

The ordinary least square (OLS) estimation technique used in the study is only valid as an efficient estimator based on the Gauss-market theory which states that OLS is the best linear estimator (BLUE) of all the unbiased and linear estimators. If:

I_1 is a random real variable i.e the value at which the error term u_1 may assume in any one period, depends on chance. It may be positive, negative or zero

The random terms of different observations ($u_1 \dots u_3$) are independent.

4. DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

4.1 Data presentation

The presentation of data necessary for this study is as retrieved from statistical tables.

4.2 Analysis of data

The regression results of the effect of public expenditure on the growth of the Nigeria economy (1980-2012) is as seen in table 1

TABLE 4.1 (Regression result) Dependent variable: GDP

Variab le	Coefficie nt	Std.erro r	t-stat	Prob.
C	2.080533	7.76244 9	0.26802 5	0.7917
EDU	0.251125	3.26855 1	4.07683 1*	0.0000

TRAC	0.264518	0.27526	2.96097	0.0086
O		0	6	
AGR	0.709781	0.23438	3.02828	0.0007
		4	9*	1
HEA	1.775880	1.54753	3.14755	0.0262
		5	4	4

$$R^2 = 0.967376$$

$$R^2(\text{adj}) = 0.961938$$

$$\text{SER} = 0.288026$$

$$\text{DW} = 1.944205$$

$$f\text{-stat} = 116.8394$$

*significant at 1% level, *** significant at 10% level

The coefficient of multiple determination (R^2) is 0.967376 and that of adjusted R^2 of 0.961938. The second one indicates that about 96 percent of variations in the observed behaviour of GDP is jointly explained by the independent variables. This shows that the model fits the data well and has a good fit. Also, the f-statistic is used to test for the significance of such good fit. The model reports an effectively high f-statistic value of 116.8394 when compared with the table value. This indicates that the model is statistically robust. Using the t statistic criterion, EDU, TRACO, AGR AND HEA are significant at 1 percent. Specifically a 1 percent increase in all the explanatory variables will prop up the economy more than proportionate percentage point. The constant term indicates that if all the variables held constant, the economy will be improved by 2.080. The DW statistic (1.944) is used to test for the serial correlation in the residuals of the model. The calculated DW is 1.944. The $du = 1.66$, $4-du =$

2.34, $dl = 2.88$ at 5 percent level. The decision rule is that if the calculated DW falls outside du and $4-du$ (1.66 and 2.34) then there is a serial correlation in the residuals. This shows that our calculated DW of 1.944 falls within this range and this indicates that the estimates have no autocorrelation.

4.3 Discussion of findings

The study portrays the effect of public in expenditure on the growth and development of the Nigeria economy (1980-2012). From the results, all forms of public expenditure utilized in the study had a significant impact on the growth of Nigeria economy. This means that the effectiveness of the economy is dependent on the contributions of public expenditure. Moreso, these results are in the conformity with economic theory that states a rise in an independent variables lead to a rise in the dependent variable. As an addendum, this study is in conformity with Wagner law which states that the growth of an economy is accompanied by an increase in the share of public expenditure.

5.CONCLUSION & RECOMMENDATION

5.1 Conclusion

The study has established that public expenditure in the Nigeria economy increase the level of output. It is a viable option which often brings about income and employment stability in an economy. The results showed that public expenditure is incurred by the government for maintaining itself and the economy as a whole.

5.3 Recommendations

The following recommendations are proffered:

The government should increase its spending on components of public expenditure.

Government should increase its expenditure on economic services such as agriculture, construction, transport, communication, electricity and other economic services.

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