

The Impact of Budgetary Allocation on Economic Development in Nigeria

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Abstract

The study examines the impact of budgetary allocation on economic development in Nigeria. Using time series data from the Central bank of Nigeria from. The specific objectives of the study include investigation of the impact of budget on the educational development index, health development index, consumer price index and security development index. This study utilized ex-post facto research design. Ordinary Least Square (OLS) was employed to test the relationship between the dependent and independent variables. The study found out that education budget expenditure (EDUEXP) has a negative and significant relationship with education sector index in Nigeria (ESI), Health budget expenditure (HEXP) has a negative and significant relationship with the Health sector index (HSI) in Nigeria, Recurrent expenditure (REXP) has a positive and a significant relationship with Consumer price index (CPI) in Nigeria, and Defense budget expenditure (DEXP) has a negative and insignificant relationship with Defense Sector Index (DSI) in Nigeria. Based on the findings, the study recommends that the government should increase the budgetary allocation in the education sector so to increase and empower human capital index in the country.

Keywords: budgetary allocation, economic development, budget, educational development index, health development index, consumer price index, security development

1. Introduction

All futuristic financial activities of each level of government (local, state and federal) depends largely on the budget; therefore, the importance of budget to the government and the nation at large cannot be overemphasized. Budget is an important instrument of governance in any

modern society or state; and it has the potentials of aiding planning and contributing to the development in an economy. Being a comprehensive income statement of the government, it is regarded as an indispensable tool capable of inducing economic growth and development. Ogujiba and Ehigiamusoe (2023) posited that the national budget is the most

important economic policy instrument for a government and it reflects the government's priorities regarding social and economic policy more than any other documents. In other words, a well-functioning budget is the principal instrument for the formulation of sustainable fiscal policy.

Public expenditure at the local, state and federal government levels are incurred for the purposes of satisfying the collective social wants of the people. The policies aim at accelerating economic growth, promote employment opportunities, reduce poverty and income inequality. Budgetary allocation is the aide through which the available economic resources of a nation is distributed evenly to all the sectors that makes up the economy. The essence is to ensure growth and development of the nation at a large. Budget could take the form of capital and recurrent budget. Capital budget determines the allocation of funds to finance capital projects and critical infrastructure, such as construction of roads, bridges, hospitals, schools, prisons, public administrative buildings, dams and irrigation system; the purchase of machinery and equipment; and the supply of water, electricity, transport, health and educational facilities etc. capital budget unlike the recurrent budget, is intended to provide funds to finance capital expenditures like construction of durable assets. By contrast, the recurrent budget determines the allocation of funds to finance recurring governmental expenditures, such as expenditure related to personnel, overhead, civil administration, defense, health, education, government machineries maintenance etc.

Budget is subject to time and change. Olurankise (2022), sees budget as a framework for revenue and expenditure outlays over a specified period usually one year. However, empirical data from the Nigerian economy after decades of budgeting is far from being cheering. Nigerians are far worse off now than they were fifty years ago (Ojo & Adebayo 2022). The result obtained using statistical update which included the HDIs from 1990 to 2017 with consistent series of data shows that the human development index of 2017 published in 2017 valued at 0.532 which put the country in the low human development category. Positioning Nigeria at 157 out of 189 countries and territories. On comparative basis, the dilemma is more annoying when the country is compared with other countries like Malaysia South Korea, Singapore and the rest who are not

as endowed with natural resources as Nigeria and; were in same situation as Nigeria in the 1960s. These countries have experienced marked industrialization with improved quality of life for the vast majority of their population since the 1900s; when Nigeria cannot confidently say it is on the path to industrial growth (Aiyede, 2020).

Nigeria's poverty conundrum has assumed a frightening dimension. In the words of Dr. Magius Kpakol, Senior Special Assistant to the President and National Coordinator of National Poverty Eradication Programme, in a public lecture entitled "poverty solution: the role of government in poverty eradication", declared that the number of poor Nigerians could be put at an estimated figure of 20 million in 1980, the figure was 28.1 million in 1985, 46.3 million in 1992, 42.7 million in 1996, 65.6 million in 1999, 70.0 million in 2004 (National life September 13, 2008). The number keeps increasing year in and out. According to the Nigeria Economic Report released in July 2014 by the World Bank, the estimated poverty rate of Nigerians stood at 33.1%. However, it is estimated that about 98.8 million Nigerians now live in adjacent poverty which constitute a staggering figure of 46.4% of it estimated population (2018 estimate). He gave the statistical breakdown along the six regional level to be "72.2% in North-East, South East 28.7%, South-South 31.5%, South West 43.1%, North Central 67. 0%, and North West 71.2%".

2. Literature Review

2.1 Theoretical Framework

Researchers have applied some theories in explaining economic development and budget, the theories used in this work include: The Wagner's Law Theory of Increasing State Activities: Wagner's law is a principle named after the German economist Adolph Wagner (1835-1917). Wagner advanced his 'law of rising public expenditures' by analyzing trends in the growth of public expenditure and in the size of public expenditure and in the size of public sector. Wagner's law postulates that: The extension of the functions of the states leads to an increase in public expenditure on administration and regulation of the economy (i) 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. (ii) The rise in public expenditure will be more than proportional increase in the national income

(income elastic wants) and will thus result in a relative expansion of the public sector. Musgrave and Musgrave (1988), in support of Wagner's law.

2.2 Empirical Review

Empirical literature on the evaluation of the impact of budgetary allocation on economic development viewed based on researches conducted in other countries across the globe. Different forms of government expenditures and economic growth have been examined in the literature. Rizvi, Qamar and Shamin (2020) investigated the relationship between government expenditures and gross domestic product (GDP) based on modern time series econometrics techniques. The paper used thirty years of data for the period 1979-2008 and found a long-run relationship between government development expenditures and economic growth. Ogijiba and Ehigiamusoe (2023) posited that the national budget is the most important economic policy instrument for a government and it reflects the government's priorities regarding social and economic policy more than any other document. In other words, a well-functioning budget is the principal instrument for the formulation of sustainable fiscal policy. Olurankise (2022), see budget as a framework for revenue and expenditure outlays over a specified period usually one year. Budgeting as a concept of authorization explains the original purpose of budgeting as a functional financial plain to provide money for government institution. Consequent upon this, the government institution carries out.

3. Methodology

This study is based on the use of the ex-post facto research design. The choice of this design is informed by the nature and timing of the relationships being studied. In this regard, the study examines relationships which have already taken place (ex-post relationships) in order to

derive conclusions which can be used for decision making with respect to prediction or influencing the future values of the relationships. The model for the study is anchored on Wagner's and Musgrave law. Wagner's law is a principle named after the German economist Adolph Wagner (1835-1917). Wagner advanced his law of rising public expenditures' by analyzing trends in the growth of public expenditure and in the size of public expenditure and in the size of public sector. In view of the foregoing, the study has four models and there are specified as follows:

$$ESI = f(EDUExp) \quad 1$$

$$HSI = f(HExp) \quad 2$$

$$CPI = f(RecExp) \quad 3$$

$$DSI = f(DEXp) \quad 4$$

Equation (1) can be transformed into an econometric model of the form:

$$ESI = b_0 + b_1 EDUEXP + \mu \quad 5$$

$$HSI = b_0 + b_1 HEXP + \mu \quad 6$$

$$CPI = b_0 + b_1 RecEXP + \mu \quad 7$$

$$DSI = b_0 + b_1 DEXP + \mu \quad 8$$

Where:

EDUEXP = Education budget expenditure

HEXP = Health budget expenditure

DEXP = Defense budget expenditure

RecExp = Recurrent expenditure

CPI = Consumer Price Index

HSI = Health Sector Index

ESI = Education Sector Index

DSI = Defense Sector Index

μ = Stochastic error

And b_1 to b_4 are the coefficient of the parameters to be estimated.

4. Presentation and Analysis of Result

Model 1 (one)

Table 1. Dependent ESI (Education Sector Index)

Variable	Coefficient	Std. Error	T-Statistics	Prob.
C	147.1603	18.08031	8.139260	0.0000
EDUEXP	-0.154987	0.065105	-2.380567	0.0320

Source: Researcher Compilation (2019).

Critical Values: to.06 = 2.02; Fo.05 4.60

R-Squared 0.688151

Adjusted R-squared 0.637305

F-statistics 5.667100

Durbin Watson 1.597658

The result for the equation above; ESI (Education Sector Index) equation presented above in model one (1) Table 1 shows that the intercept term the 5% level of positive and statistically significant significance. Education budget expenditure (EDUEXP) does not satisfy the apriori criteria because it indicates the existence of a negative relationship between EDUEXP (education budget expenditure) and ESI (Education Sector Index) in Nigeria. This implies that a unit change in education budget expenditure will lead to a 15.4% decrease in education sector index. This is line with the findings of Lawal, and Wahab, (2021) and Allen (2024). The coefficient of

determination and the adjusted coefficient of determination indicate that the model has a strong explanatory power and have a good fit. This is because the coefficient of determination shows that 68.8% of the variation in the ESI (education sector index) explained by the variables included in the equation, while 63.7% is explained by the significant variables included in the equation. The F-statistics which shows if the model is statistically significant or not, will be used to test the overall significant of the model based on the following criteria.

Model 2 (Two)

Table 2. Dependent Variable: HSI (Health Sector Index)

Variable	Coefficient	Std. Error	t-statistics	Prob.
C	155.6421	20.92402	7.438442	0.0000
HEXP	-0.291512	0.123136	-2.367390	0.0329

Source: Researcher Compilation (2026).

Critical Values: to.05 = 2.02; Fo.05 = 4.60

R-Squared 0.785880

Adjusted R-squared 0.734871

F-statistics 5.604536

Durbin Watson 2.043945

The result for the equation above; HSI (Health Sector Index) equation presented above in model two (2) Table 2 shows that the intercept term is positive and statistically significant at the 5% level of significance. Health budget expenditure (HEXP) do not satisfy the apriori criteria because it indicates the existence of a negative relationship between HEXP (Health budget expenditure) and HSI (health Sector Index) in Nigeria. This implies that a unit change in health budget expenditure will lead to a 29.1% decrease in health sector index. This is line with the findings of Lucien (2022), Adams (2023) and Olomola (2016). The coefficient of determination

and the adjusted coefficient of determination indicate that the model has a strong explanatory power and have a good fit. This is because the coefficient of determination shows that 68.5% of the variation in the HSI (health sector index) explained by the variables included in the equation, while 69.1% is explained by the significant variables included in the equation. The F-statistics which shows if the model is statistically significant or not, will be used to test the overall significant of the model based on the following criteria.

Model 3 (Three)

Table 3. Dependent Variable: CPI (Consumer Price Index)

Variable	Coefficient	Std. Error	T-Statistics	Prob.
C	3.216006	8.302675	0.387346	0.7043

REXP	0.039983	0.002619	15.26877	0.0000
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Source: Researcher Compilation (2026).

Critical Values: to.05 = 2.02; Fo.05 = 4.60

R-Squared 0.943351

Adjusted R-squared 0.939304

F-statistics 233.1353

Durbin Watson 0.688699

The result for the equation above; CPI (Consumer Price Index) equation presented above in model three (3) Table 3 shows that the intercept term is positive and statistically significant at the 5% level of significance. Recurrent expenditure (REXP) satisfies the apriori criteria because it indicates the existence of a positive relationship between REXP (Recurrent expenditure) and CPI (Consumer Price Index) in Nigeria. This implies that a unit change in recurrent expenditure will lead to a 3.9% increase in consumer price index. The coefficient of determination and the adjusted coefficient of determination indicates that the model has a strong explanatory power and have a good fit. This is because the coefficient of determination shows that 94.3% of the variation in the CSI (consumer price index) explained by the variables included in the equation, while 93.9% is explained by the significant variables included in the equation. The F-statistics which shows if the model is statistically significant or not, will be used to test the overall significant of the model based on the criteria.

Model 4 (four)

Table 4. Dependent Variable: DSI (Defense Sector Index)

Variable	Coefficient	Std. Error	T-Statistics
Prob.	C	168.3602	32.43919
5.190023	0.0001	DEXP	-0.239703
0.131366	-1.824699	0.0895	

Source: Researcher Compilation (2026).

Critical Values: to.05 = 2.02; Fo.05 = 4.60

R-Squared 0.892130

Adjusted R-squared 0.734425

F-statistics 3.329526

Durbin Watson 2.165068

The result for the equation above; DSI (Defense sector Index) equation presented above in model four (4) Table 4 shows that the intercept term is positive and statistically significant at the 5% level of significance. Defense budget expenditure (DEXP) does not satisfy the apriori criteria because it indicates the existence of a positive relationship between DEXP (Defense budget expenditure) and DSI (Defense sector Index) in Nigeria. This implies that a unit change in defense budget expenditure will lead to a 23.9% decrease in defense sector index. This is line with the findings of Aruwa (2024) and Lawal (2017). The coefficient of determination and the adjusted coefficient of determination indicate that the model has a strong explanatory power and have a good fit. This is because the coefficient of determination shows that 89.2% of the variation in the DSI. (defense sector index) explained by the variables included in the equation, while 73.4% is explained by the significant variables included in the equation. The F-statistics which shows if the model is statistically significant or not, will be used to test the overall significant of the model based on the criteria.

5. Discussion of Findings

This study was carried out to assess the impact of budgetary allocation on economic development in Nigeria. From the results of the analysis the study found out that education budget expenditure has a negative and significant relationship with education sector index in Nigeria. The negative relationship is as a result of the low budgetary allocation allocated to education sector, while the significant relationship is because education is a major component of well-being and is used in the measure of economic development and quality of life, which is the key factor determining whether a country is a developed, developing or underdeveloped country. From the study, education expenditure impact significantly on the development of the country.

6. Conclusion

This study was carried out to examine the impact of budgetary allocation on economic development in Nigeria. The federal government of Nigeria had over the years made frantic efforts towards economic development through its budgetary allocations to the three tiers of its government. However, empirical data from the Nigerian economy after decades of budgeting is far from being cheering. Nigerians are far worse off today than they were fifty years ago. Despite several billions of dollars in exports revenues since the discovery of oil in the late 1950s, at least half of Nigerians still live in abject poverty without access to basic/social amenities. Development index is lower than it was before the beginning of the oil boom of the 1970's. To even return to the standard of living of that time, the economy would have to grow by an unlikely 5 percent per year. Budgetary allocation is the aide through which the available economic resources of a nation is distributed evenly to all the sectors that makes up the economy. The essence is to ensure growth and development of the nation at a large. Budget could take the form of capital and recurrent budget. Capital budget determines the allocation of funds to finance capital projects and critical infrastructure, such as construction of roads, bridges, hospitals, schools, prisons, public administrative buildings, dams and irrigation system; the purchase of machinery and equipment; and the supply of water, electricity, transport, health and educational facilities etc. Capital budget unlike the recurrent budget, is intended to provide funds to finance capital expenditures like construction of durable assets. By contrast, the recurrent budget determines the allocation of funds to finance recurring governmental expenditures, such as expenditure related to personnel, overhead, civil administration, defense, health, education, government machineries maintenance etc. It is sad that despite the huge amount of Nigeria's budget, its impact has been doubtful; evidenced by the stunted /stagnant growth and development in the country.

7. Recommendations

Based on the findings obtained in the study, the following recommendations are made:

- 1) The government should increase the budgetary allocation in the education sector so to increase and empower human capital index in the country.

- 2) Budgetary allocation meant for the health sector should be increased by the government to promote and increase the country's health index and human capital development.
- 3) Recurrent expenditure should be reduced while capital expenditure should be increased in other to give room for infrastructural development. By this, it will reduce our dependence on importation and give rise to exportation and domestic growth. Thereby stabilizing the prices of goods and services in the country.
- 4) Budgetary allocation to the defense sector (military) should be increased. This will give rise to security empowerment and thereby lessen the level of insurgency in the country.

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