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Responsiveness of Economic Growth to Budgetary Application in Nigeria

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Abstract

In Nigeria, the research looked at how responsive economic development is to budgetary application. The study's independent variables were government spending on health, education, agriculture, and security, whereas the study's dependent variable was economic growth as measured by the gross domestic product. The study used an ex-post-facto research methodology and spanned the years 2009 to 2018. The Statistical Bulletin of the Central Bank of Nigeria provided secondary data. The data was analyzed using the covariance analytical method. According to the study's specific objectives, which include determining the relationship between government expenditures on health, education, agriculture, and security on Nigeria's gross domestic product, all budgetary application indicators have a positive and significant relationship with the country's GDP. Therefore, all the explanatory variables provide a sound benchmark for measuring the gross domestic product in Nigeria. It is recommended therefore that government should build state of the art hospitals accross the country to enable them fight diseases and pandemics. They should build and equip schools with academic materials relevant for proper learning. Significant investment will also be needed to improve the quality of staff teaching in primary schools. The government needs to rely more on agriculture especially at this time of crude oil price crisis. They can do this by enhancing seeds used in the farm. Also, Agriculture mechanization should set firmly at the core if Nigeria hopes to reverse the negative trend in the agricultural sector. Decisions will be made in policy vacuums, resulting in waste and corruption, unless there is a guiding policy framework in place. They should invest more in security by hiring more personnel in the armed forces, and equipping them with modern machineries to combat security problems in the country.

Keywords: Gross Domestic Product, Education, Health, Agriculture, Security

1. Introduction

Budgetary allocation of key sectors of the economy has long been recognized as a necessary precondition for a country's fast economic growth by development planners and economists. Without significant budgetary allocation to critical sectors of the economy proven to have a strong multiplier impact, no every country in the world has seen sustained economic growth (Nurudeem & Usman, 2010). Budgetary allocations to key sectors of the economy such as education, health, agriculture, and industry, according to Cooray (2009), have a beneficial impact on equality and may substantially decrease poverty to minimum levels. The capacity of a particular sector/sectors to increase production (growth), generate jobs, decrease poverty, and so accelerate economic development is a well-known phenomenon in the literature of government spending (Gupta, 2001; UNDP, 2009).

Given the critical role of government spending in the growth process, scholars have argued that increased budgetary allocation and resource efficiency within key sectors of the economy fosters economic growth and development: for example, spending on education and health improves the quality of labor and productivity, thereby raising national output (Alutu and Izilein, 2012). Development planners, government, economists, and other stakeholders in the economy are concerned about the structure and amount of budgetary allocation to various sectors of the economy, as well as the effectiveness of resource allocation (World Bank, 2011).

In Nigeria, government places a high premium on sectors such as agriculture, industry, education, health, and communications because of the catalytic roles of these sectors in the

development process. The overriding objective of giving prime budgetary attention to these sectors is that they have the potential to grow other sectors, given the enabling environment and consequently fastrack economic development (Loto, 2011). The present government is making strong attempts to provide crucial attention to development – boosting sectors in terms of budgetary allocations based on this.

This study is essential because increased and effective budgetary allocations to key sectors of the economy have the potential to promote economic development, while their lack of funding leads in economic stagnation. Similarly, funding for key economic sectors including agriculture, health, education, industry, and communication has been insufficient and unreliable. According to the World Bank (2010), this major policy blunder contributed more than any other element to the failure of Nigeria's economic programs. The global economic Crisis has indeed posed difficult times for the economy of all regions of the world resulting in gross failure in world trade, unemployment, decline in GDP, currency depreciation, etcetera. Such weak and uncertain economic situation makes it difficult for the region to compete favourably in the global economy. Stakeholders in world economy (United Nations, World Bank, ICA, etc) suggest that the economic crisis cannot be overcome if the region continues to be weak and dependent on other regions. There is therefore every need to seek urgent measures to strengthen the economy of Nigeria.

The problem of budgeting in Nigeria is that despite the huge amount set out to revamp agriculture, much little has been truly utilized which makes scramble for food too high and prices too costly to the rich or the poor. Also, there has been the problem of misappropriation of security vote despite the huge amount budgeted. Loss of life and property has been prevalent in Nigerian society and worse off in 2016. Another problem is that policy formulation on housing has been laudable over the years but actual utilization to make housing available for all remains a utopia concept in Nigeria. There is the problem of transport which has eluded all measures to rectify in Nigeria.

Budgetary allocations to the Ministry of Transportation have increased over time, yet the roads have deteriorated. On our highways, little effort is done to reduce accidents. Overall, Nigerian financial expenditures have failed to address the issues of food scarcity, insecurity, unhealthy housing, and inadequate transportation. As a consequence, the goal of this study is to determine if Nigerian economic growth is sensitive to government expenditure. The study's specific objectives are to evaluate the relationship between Nigeria's health, education, agriculture, and security expenditure and the country's GDP.

2. Review of Related Literature 2.1 Conceptual Review 2.1.1 Budget Allocation

In every contemporary state, the budget is an essential tool for government. It has authority over the amount and proportion of government revenues (revenue) and expenditures (payment) (Edame, 2010). Recurrent expenditures, capital expenditures, subsidies, debt payments, and so forth are all included in this category. These expenditures often have a substantial economic effect. Ohanele (2010) went on to say that a wellfunctioning budget system is essential for formulating longterm fiscal policies and facilitating economic development. The national government initiates several types of budgets in order to achieve macroeconomic goals and objectives such as stable and full employment, infrastructural development, and so on. Surplus, balanced, deficit, supplemental, and development budgets, as well as the line item or conventional budgeting system, performance budgeting system, planning budgeting system, and programming budgeting system, are all examples of these budgets.

According to Ogujiuba and Ehigiamusoe (2013), the national budget is a government's most significant economic policy tool, reflecting the government's objectives in social and economic policy better than any other document. Furthermore, the instrument converts policies, campaign pledges, political commitments, and objectives into choices about where and how money should be spent and collected. With increased democracy, civil society involvement, and a determination to address the development problem of poverty, the emphasis on the budget has been more prominent in recent years. The national budget is split into two parts: recurring and capital.

2.1.2 Review of Budget Allocations to Agriculture

In Nigeria, the agricultural industry contributes for around 18.78 percent of total economic activity. Crop production continues to dominate and drive the industry. However, the industry is beset by two major problems: its failure to satisfy Nigeria's internal food needs and its inability to export at the necessary quality standards.

Poor road networks for transporting agricultural produce from farms to markets, a lack of a market for improved seeds, fertilizer and distribution network issues, a lack of finance, and gaps in education leading to poor agronomy practices are just a few of the key challenges that contribute to low productivity.

In addition, the sector suffers from a lack of food testing facilities throughout Nigeria, a weak inspectorate system, and inadequate coordination among various but essential authorities working on critical agricultural initiatives. In addition, between 30 and 40 percent of the food produced in Nigeria is wasted. Food inflation is also increasing as a result of poor productivity and other issues in the agriculture industry. Inflation in the food sector increased from 9.8% in May 2015 to 19.91% in July 2017. (National Bureau of Statistics).

According to the National Bureau of Statistics Report (2018), the Ministry of Agriculture received N203 billion in fiscal year 2018. In fiscal 2018, capital expenditure would account for about N149.2 billion, or 73.49 percent of the budgetary allocation, with wages, allowances, and other administrative costs accounting for the remainder. The Ministry of Agriculture received N103.79 billion in capital expenditure allocations in 2017, up from N46.17 billion in 2016. In 2017, recurrent spending was about N31.75 billion, up from N29.64 billion in 2016.

2.1.3 Review of Budget Allocations to Education

In fiscal year 2017, Nigerians (both private and public sector) spent a total of N2.59 trillion on education-related services, up from N2.45 trillion in 2016. Surprisingly, the Federal Government's overall education-related expenditure in 2016 was just a quarter of what it was in 2015, at about 48 N363 billion, or roughly 15% of total

education-related spending (National Bureau of Statistics). The education industry is one of the fastest expanding in the globe, however in Nigeria, the sector is in some kind of recession due to poverty and a decrease in citizen income. In the second quarter of fiscal year 2018, real growth in education services was -0.67%. (Nigeria Budget Office).

The Federal Ministry of Education's budgetary allocation, as a percentage of the overall budget, has decreased from a high of 12.46 percent in 2015 to a low of 7.38 percent in 2018. The approved budget for 2018 allocates N673.28 billion, or around 7.38 percent of the Federal Government's budget, to education. The Ministry of Education will spend the largest part of the budget, N407.76 billion, on recurring items, while N102.91 billion will be spent on capital expenditures (National Bureau of Statistics).

According to the United Nations Educational, Scientific, and Cultural Organization's (UNESCO) Incheon Declaration, if the government wants to position its economy well in an increasingly competitive world, it should devote 15% to 20% of the national budget to education, which means the 2018 education budget should be in the region of N2 trillion, not N673.28 billion.

2.1.4 Security Budget in Nigeria

Kidnappings, terrorism, confrontations between ranchers and farmers, and police violence are all on the rise. The Nigerian Ministry of Defense is responsible for correcting this anomaly.

In 1958, the Nigerian Ministry of Defence was formed to handle all elements of the country's defense as a sovereign body. Its purpose is to provide administrative support for the development and maintenance of a modern, professional, mission-capable, and mission-ready armed forces for the nation's defense, as outlined in the Federal Republic of Nigeria's Constitution.

Defense received a budgetary allocation of N567 billion in 2018, up from N469 billion in 2017. Defence budget allocations were N443 billion in 2016, N357 billion in 2015, and N340 billion in 2014. (National Bureau of Statistics).

2.1.5 Budget Allocation to Health Ministry

With a neonatal mortality rate of 37 per 1000 live births, Nigeria has one of the worst rates of infant fatalities in Africa, accounting for about 250,000 deaths per year. Nigeria has one of the worst rates of under-five mortality in the world, with at least 124 children dying per 1000 before reaching the age of five. In Nigeria, one of the most common causes of mortality is children's malnutrition (National Bureau of Statistics).

In fiscal year 2016, health-related expenditures by the federal government accounted for about 10% of overall health spending, while state and local government health spending was projected to be in the range of 8% and 4%, respectively. According to a comprehensive assessment of all budget line items, the health sector budgetary allocation was N339.38 billion, N347.26 billion, N353.54 billion, N380.16 billion, and N528.14 billion in 2014, 2015, 2016, 2017, and 2018. The rise in 2018 may be attributed to increased funding for the Ministry of Health and the National Assembly's infusion of N55.15 billion for the execution of the National Health Act, which was enacted in 2014. The Ministry of Health's appropriations increased by 15.56 percent (National Bureau of Statistics).

2.1.6 Economic Growth

Though no generally accepted definition exists, most theoreticians see economic development as a process that results in economic and social, quantitative and qualitative changes, leading the national economy to increase its real national product cumulatively and sustainably. In contrast to development, economic growth entails an examination of this process, particularly in quantitative terms, with a focus on the functional relationships between endogenous variables; in a broader sense, it entails an increase in GDP, GNP, and NI, and thus of national wealth, including the p As a consequence, economic growth may be described as the process of increasing the size of national economies and macroeconomic indices, such as GDP per capita, in an ascending but not necessarily linear trend, with positive effects on the economic-social sector. Economic development is a complex, long-term phenomenon hampered by variables such as population increase, inadequate resources, insufficient infrastructure, inefficient resource utilization, excessive government participation, institutional and cultural paradigms that restrict expansion, and so on. Economic growth is accomplished through maximizing the use of available resources and expanding a country's production capacity.

2.1.7 Gross Domestic Product

The Organization for Economic Co-operation and Development (OECD) defines GDP as "a sum of all resident and institutional units involved in production (plus any taxes, minus any subsidies on items not included in the value of their outputs)" The International Monetary Fund (IMF) issued a study stating that "GDP is a monetary measure of the monetary value of final goods and services (those bought by the end user) produced in a country over a certain period of time (say a quarter or a year). It is also possible to break down the contribution of each industry or sector of the economy to overall GDP. The GDP divided by the total population of the region is known as the per capita GDP, and the same is known as the Mean Standard of Living.

2.2 Theoretical Framework

There are several theories underpinning this study. Such theories include The Growth theory pioneered by Abramovitz and Slow in 1921 and Harrod-Domar theory (income theory) propounded by Harrod and Domar in the 1930.

2.2.1 The Growth Theory

The growth theory considers the causal connections that exist between economic growth and the factors that contribute to it. There will always be a source of growth, as well as the effect of increasing returns to scale. The theory's framework includes a model that stresses resource allocation efficiency via budgeting and economic growth.

2.2.2 Income Theory

A long-term output theory is the Harrod-Domar hypothesis. According to the theory, capital accumulation not only produces income but also increases an economy's productive capacity. According to the theory, demand for goods and services is generated by newly created money through capital accumulation. A country's annual budget, which typically focuses on ways to produce extra income/revenue in order to improve a country's productive capacity and achieve economic growth. The most essential condition for a country's economic growth, according to the theory, is that the demand generated by newly acquired wealth is sufficient to absorb all of the output produced.

The Abramovitz and Slow Growth theories are used in this study. The theory tries to break down economic growth into its many components, the most significant of which is the efficiency with which resources are allocated for economic progress. According to the concept, there is always a link between development and the institutions that govern resource allocation in a society; what counts is the pattern of resource allocation and resource application monitoring. The government's allocation of the Nigerian annual budget, implementation, and monitoring its by key organs/institutions for planned economic growth demonstrate the significance of the theory to the study.

2.3 Empirical Review

Ifeanyi, Ezeamama, Joy, and Mgbodile conducted study on Nigerian budget implementation and control reforms: tools for macroeconomic development (2016). The study's aim was to investigate the impact of Nigeria's budget implementation on resource management, productivity, efficiency, and human overhead costs. A simple percentage approach was used to assess questionnaires provided to a sample of 308 individuals using an ex-post factor descriptive study design. According to the study, insufficient project conception, design, and planning processes by ministries, departments, and agencies are to blame for poor resource management. According to the findings, residents of the host community are involved in the monitoring and assessment of government initiatives.

Innocent and Christopher (2017) performed a study of the Nigerian economy, focusing on budget evaluation and government performance. The purpose of the research was to evaluate Nigeria's federal budget and performance. The information for the research came from Nigerian financial and economic periodicals. The data was subjected to descriptive and empirical analysis. Budget credibility is assessed using an international threshold and suggested limit for budget deficit/GDP, as well as a minimum 50 percent score performance rating for regression economic performance. Nigeria's fiscal performance is low yet tolerable, according to the findings. According to the study, government budget performance should be published at the end of each year to keep people informed about government activities.

Iheanacho (2016) used a disaggregated approach to examine the effect of government expenditure on Nigerian economic growth. The study looked at the long and shortterm relationship between government expenditure and economic growth in Nigeria from 1986 to 2014. Using cointegration and the Error Correlation (EC) technique, two components of public sector expenditure and the gross capital formation ratio were derived using the Cobb-Douglas production function. According to the results, although recurrent spending is a major driver of economic development, capital expenditure has a negative and significant long-run effect on economic growth in Nigeria. According to the study, public funds should be used carefully on suitable initiatives rather than a multitude of projects that do not lead to economic growth.

Olatunji Oladipupo and Joshua Oladipupo investigated the

impact of capital budget implementation on Nigerian economic growth (2017). The aim of the research was to examine how capital expenditure on administrative, economic, and socio-community services influenced the growth of the Nigerian economy. The study's secondary data comes from the Central Bank of Nigeria's Statistical Bulletin (CBN). Using the Augmented Dicker-Fuller unit root test, co-integration test, and Error Correlation Model capital was found that expenditure (ECR), it implementation is important in maintaining and sustaining economic growth in Nigeria. It was recommended that the government ensure that the country's capital expenditures be carried out properly.

Ogbonna and Azubike (2018) investigated the impact of government spending on Nigerian economic growth (1981-2015). The purpose of the research was to investigate the impact of government expenditure on Nigeria's economic growth. The CBN Statistical Bulletin provided secondary data for the study, which was evaluated using multiple regressions using Ordinary Least Squares (OLS). Education expenditure has a significant impact on GDP, according to the results. Health expenditure has a negative relationship with GDP, while community services have no impact. It was proposed that the Nigerian government use tax revenue to improve social services in the country.

The ADF unitroot test and the OLS regression test were employed by Emori, Duke, and Nneji (2015) to investigate the impact of government expenditure on the Nigerian economy. Government expenditure has a significant effect on the Nigerian economy, they found.

Ebong, Ogwumike, Udongwo, and Ayodele investigated the impact of government capital expenditures on Nigerian economic growth (2016). A multiple regression model based on a modified endogenous growth paradigm was used to capture the interrelationships. Based on error correction and cointegration criteria, an OLS technique was used to evaluate the yearly time series. Disaggregated expenditure does not hinder private investment, they found. Udoffia and Godson (2016) used the OLS estimating technique to look at the impact of federal government spending on the Nigerian economy and found that both capital and recurrent expenditures had a positive impact on real GDP. Finally, scientific evidence on the true relationship between government expenditure and economic growth is mixed and inconsistent. Depending on the analytical method employed and the categorization of government expenditure, their results and evidence differ.

Abu-Baden and Abu-Qarn (2013) investigated the causal relationship between government expenditure and economic growth in Egypt, Israel, and Syria. A multivariate co-integration and variance decomposition technique was employed in the study. Using a bivariate framework, the researchers discovered a bi-directional (feedback) and longrun negative relationship between government capital spending and economic growth.

Agbonkhese and Asekhome (2014) examined the impact of government expenditure, credit to the economy, private capital formation, exchange rate, and lagged GDP values on current GDP using the OLS technique of econometric analysis. According to their results, all other explanatory variables, with the exception of the exchange rate (which has a negative influence on GDP), have a positive impact on GDP.

Emenini and Okezie (2014) studied the relationship

between Nigeria's total government expenditure and economic growth from 1980 to 2012. They discovered a link between GDP and total government expenditure in their study. According to them, when variables vary from their equilibrium values, the rate of return to equilibrium is 44 percent within a year.

Desmond, Titus, Timothy, and Odiche (2012) examined the effect of government expenditure on economic growth in Nigeria from 1970 to 2009 using the OLS multiple regression model and time series data. The model utilized time series data from the GDP and other components of government expenditure. Throughout the study period, capital and recurrent economic service expenditure had a minimal negative effect on economic growth, according to the findings. Furthermore, transfer capital had a minimal positive effect on economic growth. The authors then recommended that more money be allocated to the series, which had a significant positive effect.

In the literatures reviewed above, the researcher found the following gaps, which justify the need for this investigation. Several studies on government expenditure on the development of the Nigerian economy have been undertaken, but few, if any, have captured the selected government spending on Nigerian economic growth. Furthermore, although the bulk of the material reviewed covers the years 2016 to 2018, this study will include the years 2018 and beyond, making it more current to assess the current situation in Nigeria in terms of budgetary allocation and economic growth.

3. Methodology

3.1 Research Design

In order to determine the responsiveness of economic development to budgetary application in Nigeria, this study used an ex-post facto (after the fact) research methodology. Because it depended on past data, the study is classified as ex-post facto. The study's sample size is comprised of four spending components: agriculture, security, health, and education. In Nigeria, the variables, in addition to education, account for the majority of government spending. The sample selection technique used was a basic random sampling approach. This technique was used to guarantee impartial analysis of the given data.

3.2 Model Specification

The Model was specified as, and in line with the hypotheses, as shown below: For hypothesis one which states that There is no significant relationship between expenditure on health and gross domestic product in Nigeria The hypothesis is modelled as:

 $r = [1/(n-1)] \times \sum [(EXPH - EXPH)/S_{EXPH}) \times (GDP - GDP) / S_{GDP}] \dots (1)$

For hypothesis two which states that There is no significant relationship between expenditure on education and gross domestic product in Nigeria. The hypothesis is modelled as:

 $r = [1/(n-1)] \times \sum [(EXPED - EXPED)/S_{EXPED}) \times (GDP - GDP)/S_{GDP}] \dots (2)$

For hypothesis three which states that there is no significant relationship between expenditure on agriculture and gross domestic product in Nigeria. The hypothesis is modelled as:

 $\mathbf{r} = [1/(\mathbf{n}-1)] \times \sum [(EXPAG - EXPAG)/S_{EXPAG} \times (GDP - GDP)/S_{GDP})] \dots (3)$

For hypothesis four which states that there is no significant relationship between expenditure on security and gross domestic product in Nigeria. The hypothesis is modelled as:

 $\mathbf{r} = [1/(\mathbf{n}-1)] \times \sum [(EXSE\overline{C} - EXPSEC)/S_{EXPSEC}) \times (GDP - GDP)/S_{GDP}] \dots (4)$

Where

n	number of observation in the sample			
Σ	summation symbol			
GDP	the value of gross domestic product			
GDP	the sample mean of gross domestic product			
S _{GDP}	the sample standard deviation of the gross domestic product			
EXPH	the value of expenditure on health			
EXPH	the sample mean of the expenditure on health			
Sexph	the sample standard deviation of expenditure on health			
EXPED the value of expenditure on education				
EXPED the sample mean of expenditure on education				
SEXPED	the sample standard deviation of expenditure on education			
EXPAG the value of expenditure on agriculture				
EXPAG the sample mean of expenditure on agriculture				
SEXPAG	the sample standard deviation of expenditure on agriculture			
EXPSEC	the value of expenditure on security			
EXPSEC	the sample mean of expenditure on security			

EXPSEC the sample mean of expenditure on security

 $S_{\text{EXPSEC}} \;\; \text{the sample standard deviation of expenditure on security}$

3.3 Description of Model Variables

The research variables are structured into dependent and independent variables for the purpose of the analysis. The dependent variable of the study is gross domestic product while the independent variables are budgetary allocation on health, education, agriculture, and security.

Table 2: Description of Variables

Short Form	Details	Source of Data
GDP	Gross Domestic Product	CBN Statistical Bulletin

World Wide Journal of Multidisciplinary Research and Development

ЕХРН	Expenditure on Health	CBN Statistical Bulletin	
EXPED	Expenditure on Education	CBN Statistical Bulletin	
EXPAG	Expenditure on Agriculture	CBN Statistical Bulletin	
EXPSEC	Expenditure on Security	CBN Statistical Bulletin	

Source: Author's Arrangement.







Except for GDP, all of the variables studied had a similar pattern of change, as seen in the graph. However, from 2009 to 2018, the gross domestic product grew at a steady

pace. From 2009 to 2018, the data variables EXPH, EXPED, EXPSEC, and EXPAG all followed the same trend of movement. The main difference is that in 2011 and

2015, EXPH was greater than the other factors. The graph also indicates that in 2014, the government spent the least

on security. The data from the Nigerian economy is one example of this.

	GDP	EXPH	EXPED	EXPAG	EXPSEC
Mean	62752.69	199.5120	326.0020	38.31100	336.9690
Median	65185.76	199.3600	341.5150	38.06500	327.6200
Maximum	69799.94	296.4400	465.3000	53.99000	489.6500
Minimum	49856.10	90.20000	137.1200	22.44000	221.6500
Std. Dev.	6962.976	65.26821	100.2689	9.383379	91.19390
Skewness	-0.638776	-0.458923	-0.814775	0.063573	0.188661
Kurtosis	2.051700	2.379431	2.789720	2.475325	1.782125
Jarque-Bera	1.054755	0.511478	1.124853	0.121437	0.677330
Probability	0.590151	0.774344	0.569825	0.941088	0.712721
Sum	627526.9	1995.120	3260.020	383.1100	3369.690
Sum Sq. Dev.	4.36E+08	38339.45	90484.76	792.4303	74846.95
Observations	10	10	10	10	10

TABLE 4.2.1: Descriptive Statistic for Data Variables

Source: Eviews 10.0 Software

Table 4 indicates that none of the variables have skewness values greater than one. This indicates that all of the data is spread properly. The kurtosis coefficient indicates that all data variables have a kurtosis value of less than three. This proves that all data series are distributed properly. JarqueBera statistics' negligible coefficient indicates that a series' frequency distribution is normal. For the Jarque-Bera statistics, the P-values for all variables are negligible. This indicates that all of the variables under investigation have a normal distribution.

Covariance Analysis: Spearman rank-order						
Date: 09/18/19 Time: 23:01						
Sample: 20	09 2018					
Included	s: 10					
Covaria	ince					
Correla	tion					
t-Statistic						
Probability						
Observations	GDP	EXPH	EXPED	EXPAG	EXPSEC	
GDP	8.250000					
	1.000000					
	10					
EXPH	6.950000	8.250000				
	0.842424	1.000000				
	4.422179					
	0.0022					
	10	10				
EXPED	5.250000	4.250000	8.250000			
	0.636364	0.515152	1.000000			
	2.333333	1.700000				
	0.0479	0.1276				
	10	10	10			
EXPAG	6.750000	7.250000	5.450000	8.250000		
	0.818182	0.878788	0.660606	1.000000		
	4.024922	5.208554	2.488870			
	0.0038	0.0008	0.0376			
	10	10	10	10		
EXPSEC	7.250000	6.950000	5.050000	5.650000	8.250000	
	0.878788	0.842424	0.612121	0.684848	1.000000	
	5.208554	4.422179	2.189453	2.658272		
	0.0008	0.0022	0.0600	0.0289		
	10	10	10	10	10	

Table 4: Covariance Analysis Result of Industry Panel Data

Source: Author's Computation Using Eviews 10.0 Statistical Software

Table 4 shows that GDP and all of the explanatory factors studied have a strong and positive connection. The correlation between GDP and EXPH is 0.842424, with a t-statistics of 4.422179 and a probability value of less than

0.05. (0.0022). The correlation between GDP and EXPED is 0.636364, with t-statistics more than 2 (2.333333), and a probability value less than 0.05. (0.0479). GDP and EXPAG both have a 0.818182 correlation, t-statistics

greater than 2 (4.024922), and a probability value less than 0.05. (0.0038). The correlation between GDP and security (GDP/ EXPSEC) is 0.878788, with t-statistics greater than 2 (5.208554) and a probability value less than 0.05. (0.0008).

4.3 Test of Hypotheses

Test of Hypothesis One: There is no significant relationship between expenditure on health and gross domestic product in Nigeria.

Decision Rule: Accept H_0 if the coefficient of the correlation < 0.5, the t-statistics < 2 and p-value > 0.05. Otherwise, reject H_0 and accept H_1 accordingly.

Decision: The correlation coefficient of 0.842424 is greater than the 0.5, the t-Statistics of 4.422179 > 2, and the probability of 0.0022 < 0.05. Thus, we reject the null hypothesis and conclude that government expenditure on health has a strong relationship with gross domestic product in Nigeria.

Test of Hypothesis Two: There is no significant relationship between expenditure on education and gross domestic product in Nigeria.

Decision Rule: Accept H_0 if the coefficient of the correlation < 0.5, the t-statistics < 2 and p-value > 0.05. Otherwise, reject H_0 and accept H_1 accordingly.

Decision: The correlation coefficient of 0.636364 is greater than the 0.5, the t-Statistics of 2.333333 > 2, and the probability of 0.0479 < 0.05. Thus, we reject the null hypothesis and conclude that government expenditure on education has a strong relationship with gross domestic product in Nigeria.

Test of Hypothesis Three: There is no significant relationship between expenditure on agriculture and gross domestic product in Nigeria.

Decision Rule: Accept H_0 if the coefficient of the correlation < 0.5, the t-statistics < 2 and p-value > 0.05. Otherwise, reject H_0 and accept H_1 accordingly.

Decision: The correlation coefficient of 0.818182 is greater than the 0.5, the t-Statistics of 4.024922 > 2, and the probability of 0.0038 < 0.05. Thus, we reject the null hypothesis and conclude that government expenditure on agriculture has a strong relationship with gross domestic product in Nigeria.

Test of Hypothesis Three: There is no significant relationship between expenditure on security and gross domestic product in Nigeria.

Decision Rule: Accept H_0 if the coefficient of the correlation < 0.5, the t-statistics < 2 and p-value > 0.05. Otherwise, reject H_0 and accept H_1 accordingly.

Decision: The correlation coefficient of 0.878788 is greater than the 0.5, the t-Statistics of 5.208554 > 2, and the probability of 0.0008 < 0.05. Thus, we reject the null hypothesis and conclude that government expenditure on

agriculture has a strong relationship with gross domestic product in Nigeria.

4.4 Discussion of Results

According to the covariance analysis in table 4, government spending on health has a substantial and positive connection with Nigeria's gross domestic product. Agbonkhese and Asekhome (2014), Udoffia and Godson (2016), Emori, Duke, and Nneji (2015), and Emenini and Okezie (2015) all came to similar conclusions (2014). However, Ogbonna and Azubike (2018) discovered a link between government health spending and economic development.

According to the covariance analysis in table 4, government spending on education has a substantial and positive connection with Nigeria's gross domestic product. Agbonkhese and Asekhome (2014), Ogbonna and Azubike (2018), Udoffia and Godson (2016), and Emenini and Okezie (2016) all came to similar conclusions (2014).

According to the covariance analysis in table 4, government spending on agriculture in Nigeria has a substantial and positive connection with gross domestic product. Agbonkhese and Asekhome (2014), Ogbonna and Azubike (2018), Udoffia and Godson (2016), and Emenini and Okezie (2016) all came to similar conclusions (2014).

According to the covariance analysis in table 4, government spending on security has a substantial and positive connection with Nigeria's gross domestic product. Agbonkhese and Asekhome (2014), Ogbonna and Azubike (2018), Udoffia and Godson (2016), and Emenini and Okezie (2016) all came to similar conclusions (2014).

5.1 Summary of Findings

From our empirical results, it was found that:

- 1. Government expenditure on health has a strong and positive relationship with economic growth in Nigeria.
- 2. Government expenditure on education has a strong and positive relationship with economic growth in Nigeria.
- 3. Government expenditure on agriculture has a strong and positive relationship with economic growth in Nigeria.
- 4. Government expenditure on security has a strong and positive relationship with economic growth in Nigeria.

5.2 Conclusion and Recommendation

In Nigeria, the research looked at the connection between budgetary application and economic development. The federal budget is an economic planning instrument that is used to make realistic estimations and predictions based on current socio-economic data. However, there should be no gaps in the budget since every dollar spent is significant. This research discovered that budgetary application factors had a positive and significant connection with gross domestic product in Nigeria after looking into the relationship between spending on health, education, agriculture, and security and GDP. As a result, this research indicates that budgetary implementation in Nigeria has a significant and favorable connection with economic development.

Based on the results above, it was suggested that health budget allocations over the last five years be much less than 15% (at least) of the entire budget required by the Abuja Declaration, to which Nigeria is a member, but the country's economic development remains positive. Nigeria's health system is among the poorest in the world, despite a favorable connection between government health spending and economic development. As a result, upgrading Nigeria's tertiary health institutions would need an annual investment of N500 billion to N2 trillion. If the government devotes 15% of its budget to health, which amounts to N1.37 trillion in fiscal year 2018, the health sector should undergo significant changes. Education has a good connection with economic development in Nigeria, therefore the government should boost spending on it. Nigeria's education system is in disarray and needs to be overhauled. The government may help to reinvigorate the educational system by: To fulfill the requirements of students, recruit competent instructors, and create industrycentric curriculums, policies, methods, and effective budgeting procedures are required, particularly in the public education system. In addition, significant investment will be required to enhance the quality of teaching personnel in elementary schools. Despite the fact that government spending on agricultural has a good connection with economic development, the government should depend more on agriculture, particularly now that crude oil prices are so low. They may do this by improving agricultural seeds. In addition, if Nigeria wants to reverse the sector's dismal trajectory, agriculture mechanisation must be prioritized.

Despite the fact that security spending has a positive connection with GDP, Nigeria is experiencing its worst era of insecurity. This is due to a lack of a well-defined security strategy, making it impossible to objectively evaluate how the budget fits with the country's security objectives. Decisions will be made in policy vacuums, resulting in waste and corruption, unless there is a guiding policy framework in place. The budget may become unconnected and an open area for theft if there are no defined policy guidelines or key performance indicators to evaluate achievement.

This research on the responsiveness of economic growth to budgetary application in Nigeria adds to the notion that budgetary application has a strong connection with economic development in Nigeria and therefore should not have any loopholes since every dollar counts. The research has shown the present scenario in Nigeria in terms of the connection between budgetary application and economic growth. In terms of literature, the research has contributed to the body of knowledge on the topic in Nigeria. This is because the results of today's study may be used as a starting point for future studies.

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