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GOVERNMENT EXPENDITURE TO EDUCATION SECTOR AND TOTAL SCHOOL ENROLMENT IN NIGERIA

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ABSTRACT
This study examined the effect of government education expenditure on total students' enrolments in Nigerian public schools. The specific objectives were to ascertain the effect of Government Capital Expenditure to the Education Sector (GCEE) on Total School Enrolment (TSE) in Nigeria, and to examine the influence of Government Recurrent Expenditure to the Education Sector (GREE) on Total School Enrolment in Nigeria. Poverty rate (POVR) was introduced as a control variable. The study adopted ex-post facto research design, with data on the variables sourced from the Central Bank of Nigeria Statistical Bulletin covering a period of 40 years from 1981 to 2020. Based on the results of pre-estimation diagnostic tests carried out, ARDL technique was used in estimating the model parameters. The study's findings showed that the overall number of pupils enrolled in Nigeria's public school system is not significantly impacted by government capital or ongoing spending on the education sector. The study comes to the conclusion that inadequate funding for the education sector negatively affects the number of students enrolled in public schools. It therefore suggests that the Federal Government of Nigeria increase capital and ongoing spending to the education sector in order to provide the operating funds and necessary infrastructure to improve the overall number of students enrolled in Nigerian public schools, while simultaneously closing all known channels for financial leakage in budgetary allocations.

Keywords: Government Capital Expenditure, Government Recurrent Expenditure, Education Sector, School Enrolment, Poverty Rate.

1.0 INTRODUCTION:

Government expenditure to education sector is the total amount of money that the government used in financing different levels of the education in the country, such as primary, secondary and tertiary levels of education. It is often allocated through the recurrent and capital expenditures. The capital expenditure components cover the cost of infrastructural developments like classroom blocks, educational equipment, dormitories, library facilities, and such other facilities of long-term nature. The recurrent costs cover operating charges like salaries and emoluments of teachers/lecturers, and short-term operating costs. The first documented instance of government spending on education is from 1925, when colonial overlords used £116 to construct schools before to independence. (Obi, Dimnwobi, Mgbemena, Ekesiobi, 2016).

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According to Adeyemi (2020), who presents information on government spending on the education sector starting in 1990, the sector has continued to receive varying allocations, and the performance of the Nigerian education system is impacted by the sector's erratic growth. For instance, government allocated N2.4 billion to education sector in 1990, and this was increased to N9.75 billion in 1995. In 2000 and 2010, N57.96 billion and N221.1 billion were respectively allocated to the sector, while 2011 and 2015 respectively had N306.5 and N325.19 billion for education sector.

This growth was sustained in 2016 and 2017 with total expenditure of N369.6 billion and N550 billion respectively, but with a sharp drop to N221.19 billion in 2018. However, 2019 and 2020 were respectively allocated N620.5 billion and N691.2 billion respectively. The real challenge is whether these levels of expenditure to the sector is sufficient for building carrying capacities for meaningful and sustainable students' enrollment across all levels of education in the country, and to give the sector its pride of place in the economy.

In every economy, the education sector is essential and the main engine of growth. Through the supply of human capital development across all economic sectors, the education sector is one of the essential components of growth and development in an economy, according to Eweniyi (2018). This explains why, as a calculated strategic move to increase human potential in their nations, the developed economies of the world and some developing nations invest extensively in the education sector. It is anticipated that an annual increase in government capital and recurrent expenditures to the sector will supply the necessary funds to expand educational facilities in primary, secondary, and tertiary institutions, with positive trade-off effects on student enrollment in the nation's schools (Eweniyi, 2018).

Regrettably, this important sector have not received commensurate budgetary allocations to ignite necessary stimuli for growth. Ademola, *et al.*, (2014) identified poor funding as the obvious foundation of all the other problems in educational institutions. By the United Nations standards, 27% of a country's budget should go into the educational sector, but in Nigeria, a meagre 7.04% was allotted to education in 2018 of which basic education is inclusive. This percentage has remained stagnant since 2009 when it was 7.25% (Ademola, *et. al*, 2014).

1.1 Statement of the Problem

Economic planners, academics, and policy makers in the nation have become increasingly interested in determining whether government spending on education can foster the necessary economic growth and development in the educational system. Sadly, the Nigerian education system has long been beset by issues, and the situation has recently gotten worse due to recurrent strikes by primary and secondary school teachers as well as lecturers at tertiary institutions.

The majority of the education sector's stakeholders blamed the sector's inadequate government funding for these issues. In the public school system, unpaid salaries and other benefits for employees have become a recurring issue. As a result, instructors and lecturers are not giving their all to the students, which causes the institutions to produce graduates who are only partially qualified. Due to the circumstances, a growing number of parents and guardians choose to register their children in private schools with a steady and predictable academic calendar, which lowers the number of pupils graduating from and enrolling in the public school system.

This situation is further aggravated by observable low caring capacity of private schools in Nigeria, hence the resulting negative effect on the contribution of education sector to national development (Eweniyi, 2018). In addition, the incessant strikes experienced in the hands of the National Union of Teachers and the Academic Union of Universities/Polytechnics by primary, secondary schools and tertiary institutions in the country have really affected total school enrolment in the country. Most of the stakeholders attributed the causes of incessant strikes to poor allocation of recurrent

and capital expenditures to the education sector, for payment of staff salaries as at when due and provision of adequate infrastructures to accommodate new in-takes in schools and in a good number of cases, students are put in overcrowded class room with inadequate facilities, resulting to brain drain among the staff, falling standard of tertiary institutions and drops in and students' enrolment in public schools in the country (Ajibola, 2020).

Additionally, the pattern of tertiary enrolment in Nigeria shows that enrolment has been rising throughout time, with the lowest growth rate in 2004 and the largest growth rate of 219.64 percent in 1997. Nonetheless, significant distortions in Nigeria's tertiary enrollment were noted in 1995 and 2004. In actuality, Nigeria's tertiary enrollment fell sharply by 67 percent in 2004, increased by 4.8 percent in 2009, and then decreased to 1.2 percent in 2010.This erratic pattern is mostly caused by the sector's low budgetary allocation, as well as the political unrest and labor disputes that are prevalent at these times (Akangbou, 2022).

It should be highlighted that despite several legislative initiatives the government has launched over the years to encourage education at all levels, school-age children's enrollment rates—particularly for university education—remain appallingly low. (Van 2020; Basu). The contribution of this paper is two-fold. Firstly, even though the empirical evidences regarding the impact of education on economic growth is legion yet the causal effect of tertiary enrolment on growth is still very nascent. Secondly, the nonchalant attitude of the government towards the development of educational sector in Nigeria, as reflected in the government funding preferences, calls for empirical investigation (Anyanwu, 2021):

The trend in tertiary enrolment indicates that even though it has nominally been increasing, in real terms, it is abysmally nose-diving. This is largely due, in part, to the declining trend of the budgetary allocation to education in Nigeria.

Previous research (Yousra, Azia & Monir, 2014) has concentrated on the causal relationship between government spending on economic sectors and economic growth in Nigeria. Adewumi and Enebe (2019), Muideen & Egerue, 2019, Ubogu and Veronica, 2018, Agboola, Musa and Zubairu, 2018; and Aigbedion, Iyakwari and Gyang, 2017 examined the effect of government spending on education on the development of human capital. The need for the current study stems from the scant research efforts dedicated to determining the causal relationship between government spending on the education sector and total school enrollment in Nigeria.

1.2 Objectives of the Study

The main objective of the study is to ascertain the effect of government expenditure on the performance of the education sector in Nigeria. The specific objectives are to:

1. ascertain the effect of Government Capital Expenditure to the Education Sector on Total School Enrolment in Nigeria.

2. examine the influence of Government Recurrent Expenditure to the Education Sector on Total School Enrolment in Nigeria.

1.3 Research Hypotheses

The following hypotheses were investigated in the study:

$H0_1$: Government Capital Expenditures to Education Sector have no significant effect on Total School Enrolment in Nigeria.

$H0_2$: Government Recurrent Expenditures to the Education Sector do not have any significant influence onTotal School Enrolment in Nigeria.

2.0 REVIEW OF RELATED LITERATURE

This section provides a review of the various concepts that constitute the framework for the study, the related theories that underpin the study as well as the review of some empirical works on the subject matter investigated.

2.1. Conceptual Framework

2.1.1 Government expenditure

Government expenditure is the outflow of finance from government to the various sectors of the economy such as education sector, health sector, manufacturing sector and others. Accordingly to Yakubu and Akanegbu (2015), The term "government expenditure" describes the funds that the government allots to various economic sectors in a given year in accordance with orders from government policy. According to Yousra, Aziz, and Monir (2014), government spending on various economic sectors is based on how crucial those sectors are to the overall expansion of the economy. Any economy that is striving for expansion, for example, needs to give the education sector significant consideration, devote a larger portion of its budget to it, and make investments in it.

Education sector is the sector that gives knowledge at all levels (primary, secondary and tertiary) whether formal or informal. Education is an instrument through which the society can be transformed because it equips human resources with knowledge, skills and competencies needed to enhance performance, foster economic growth, contribute to personal and social development, raises peoples creativity, promote entrepreneurship and technological advances and reduce social inequality (Omolehinwa, 2016).

These arguments support the government's decision to increase sector spending. The importance of the education sector to the economy is reflected in the large budgets allocated to it in developed countries across the world; in Nigeria, however, the opposite is true. Due to a sharp decline in revenue and the general economic downturn that the nation has experienced over the past few years, the Federal Government of Nigeria is finding it more and more difficult to meet the high costs of funding education, particularly at the tertiary levels. As a result, it is unable to keep up with the growing enrollment of students with adequate funding..

The government divides expenditures on education into capital and recurring categories. Capital and recurrent government expenditures were included in government spending. Funds given to the education sector for the construction of schools, institutions, and other structures with a lifespan of more than a year are referred to as capital expenditures in education. This includes the facilities—classroom buildings, dorms, labs, equipment, and other amenities—that are required to provide an environment that is favorable to learning.

The term "recurring expenditure" refers to the costs incurred by the government for administrative functions such salaries, wages, loan interest, and upkeep. Recurrent spending on education was defined by Lawanson, Akanni, and Olayinka (2015) as the sum allotted to the education sector for the hiring of instructors, the payment of salaries and benefits, the training of instructors and lecturers, the upkeep of facilities, and other expenses. The development of a country in the twenty-first century is dependent on the amount of money invested in the education sector, as well as the quantity and quality of its educated citizenry, due to the well-established relationship between education expenditure and the growth in the education sector (World Bank, 2008).

2.1.2 School Enrollment

The entire number of pupils, regardless of age or gender, admitted to educational institutions to pursue a course of study or learning is referred to as the school enrollment. It is also known as the school enrollment ratio and represents the portion of a nation's total population that attends educational institutions. The ratio of all students enrolled in schools, regardless of age, to the population in the age group that officially corresponds to the shown level of education is known as the school enrollment ratio.

Nigeria has seen an increase in enrollment rates and years of education, which can be linked to a

generation of parents who have been devoted to their kids' education within the boundaries of a stable home environment. These efforts have reduced the gaps in education across and within countries as well as between genders throughout time (Alderman, Orazem, and Paterno, 2022). In 1960, men in developed countries who were 25 years of age or older had an average education 5.8 times higher than men in developing countries. This ratio dropped to 2.4 in 2000.

Over the same period, women's average schooling as a percentage of men's increased from 0.5 to 0.7 in emerging countries. Despite rising incomes, shifts in the need for more skilled labor, and significant government investments in school construction and equipment (through various policy interventions), there are still significant education gaps between rich and poor countries, as well as between males and females in many developing nations. These factors have all contributed to the global convergence in enrollment rates and completed years of schooling (Aliu, 2021).

2.1.3. Poverty Rate

The concept of poverty refers to a condition where individuals or communities lack the resources, capabilities, and opportunities necessary to meet their basic needs and enjoy an acceptable standard of living. Poverty is a multidimensional issue that goes beyond the simple absence of income or material possessios. It encompasses a range of deprivations, including inadequate access to education, healthcare, housing, clean water, sanitation, nutrition, and employment opportunities (Lahouij, H., 2017).

According to Beja, (2021), measuring poverty is complex and varies across countries and regions. The most commonly used indicator is the poverty line, which is an income threshold set by governments or international organizations to determine who is considered poor. However, poverty is a multi-dimensional issue, and additional measures such as the Human Development Index (HDI) and the Multidimensional Poverty Index (MPI) take into account various factors beyond income (Beja, 2021).The National Bureau of Statistics (NBS) had, in its 2022 Multidimensional Poverty Index survey stated that 63 per cent of persons living within Nigeria (133 million people) are multi-dimensionally poor.

2.2. Theoretical Framework

The Keynesian theory

The study was rooted on Keynesian Theory. Keynesian theory was propounded by Keynes in 1936. Keynesian theory states that increase in government budget has an expansionary effect on income and employment through the multiplier effects on aggregate demand. On the other side, government expenditure crowds out private investment as a result of increase in the rate of interest and this slows down economic growth and reduces the rate of capital accumulation in the long run.Keynesian theory states that increase in government budget has an expansionary effect on income and employment through the multiplier effects on aggregate demand. On the other side, government expenditure crowds out private investment as a result of increase in the rate of interest and this slows down economic growth and reduces the rate of capital accumulation in the long run Keynes also believed that government expenditure is an exogenous factor that positively impacts economic growth. Consequently, an increase in government expenditure would likely lead to gains in output, profitability, and employment due to the multiplier effects on aggregate demand. The national income determination model grows as a result of Keynes' addition of government expenditure (G), leading to equation 1;

$$AD = C+I+G \qquad (1)$$

Where, AD represents aggregate demand which equals the sum of consumption (C), Investment (I), and government expenditure (G). The government expenditure has direct and positive impact on the GDP. An increase in government expenditure will boost aggregate demand, resulting in higher level of national income. Keynesian theory states that increase in government budget has an expansionary effect

on income and employment through the multiplier effects on aggregate demand. On the other side, government expenditure crowds out private investment as a result of increase in the rate of interest and this slows

The theory under consideration holds significance as it bolsters the notion that augmenting government expenditures in any domain, such as education, will enhance the corresponding performance and ultimately catalyze the expansion of the national economy. Over time, higher government spending on capital projects and continuing education initiatives would promote economic expansion and student enrollment..

2.3 Empirical Review

Under the empirical review, the researcher critically looked at the past works done by other scholars that are related to the topic under review. Ihugba, Ukwunna and Obiukwu (2019), conducted a study on government education expenditure and its effect on Nigerian enrollment in primary schools. Bounds testing (ARDL) approach to cointegration was used to assess the investigation. The study's time frame was 1970–2017. The study's findings showed that, when primary school enrollment was the dependent variable, the variables of interest were correlated over the long term.

Additionally, the association between government education spending and primary school enrollment was shown to be inconsequential. Additionally, there was a positive correlation between remittances and enrollment in primary schools. In the near term, population growth was positively correlated, but in the long term, it was negatively correlated. When the variables deviate from their equilibrium values, the rate at which they returned to equilibrium was 88% within a year.

The report suggested that government initiatives aimed at boosting spending on education should be further expanded, and funds intended for the education sector should be distributed with a high level of transparency.

Adewumi and Enebe (2019), conducted a study on government education, social expenditure (expenditure on education and health) and its effect on the development of human capital. the research carried out in nations in West Africa. Nigeria, Ghana, Togo, Senegal, Niger, Mali, Liberia, Gambia, Guinea, Cote D'Ivoire, Burkina Faso, Guinea-Bissau, and Sierra Leone were the nations that were chosen. The study's time frame was 1985–2016. The study's conclusions showed that more government spending on health and education had a favourable and significant effect on the enrollment of students in primary and secondary schools.

The Granger causality conclusion also showed a bi-directional causal relationship between government health spending and enrollment in both primary and secondary education. The outcome additionally demonstrates a bidirectional causal relationship between government spending on education and secondary school enrollment. In order to achieve a meaningful human capital development, it was suggested that the governments of these countries take the necessary steps to assure efficient allocation and utilization of funding to these areas.

Eravwoke and Blankson (2019), examined the effect of tertiary school enrolment on economic growth in Nigeria. The variance decomposition, unit root test, co-integration test, and Ordinary Least Square estimation techniques were used to examine the study. The study's conclusions demonstrated that tertiary enrollment is a genuine tool for enhancing Nigeria's potential for significant economic growth. The study also found that government recurrent spending and tertiary school enrollment are statistically significant factors in explaining the growth of the Nigerian economy.

It was suggested that the government should give all NCE graduates instant employment as a matter of urgency. This will inspire and raise the number of persons seeking to enroll in universities.
Muideen and Egerue (2019), conducted a study on the relationship between government spending on education sector and economic

growth in Nigeria. The study's time frame was from 1981 to 2016. The study's stated hypotheses were analyzed using the ordinary least square regression approach. An ex post facto research design was used in the study. The study's conclusions showed that government financing for education in Nigeria had a favourable and substantial effect on the country's economic growth, with capital expenditures for education having a bigger effect.
The United Nations sets the benchmark at 26% of the government budget for effective funding of education, but a higher percentage of the Nigerian government budget is advised to increase the effectiveness of the Nigerian economy through improved education. It was recommended that the Nigerian government make sure that a significant portion of its budget is allocated to education.

Ubogu, & Veronica, (2018), carried out research on Nigerian Education Financing: Consequences and Prospects for National Development. They used a descriptive study design. The study's conclusions showed that the federal government spent less than 10% of its total budget on education. It was suggested that all parties involved in the financing of education in Nigeria, including parents and guardians, the general public, the private sector, and non-governmental organizations, should be involved.

Lloyd (2018), carried out research on the relationship between West African governments' spending on education and economic expansion. The study's time frame was 1990–2016. With, the study was examined with unit root, casualty test, and cointegration analysis. The study's conclusion showed a positive and significant correlation between West African governments' expenditures on education and their nations' economic growth. There was no evidence of short-run Granger causality between government spending on education and economic growth, but long-term Granger causality did. This suggests that government spending on education has a long-term, large, and positive impact on economic growth through its impact on human capital. Therefore, public sector expenditure on education of this kind should be promoted in the West African region. Encouraging regional collaboration among the nations is one way to do this because it will enable the concentration of resources and the sharing of knowledge among them, both of which will accelerate economic progress.

Agboola, Musa and Zubairu (2018) used an annual analysis to look at the impact of Nigeria's unemployment rate and educational spending on the country's economic growth. The study's data spans the years 1970 to 2017. The research design used in the study was ex-post facto and descriptive. According to the descriptive statistic, the dataset distributions were positively skewed to the right, and the variable distributions showed significant kurtosis, which indicated a leptokurtic distribution. The study's conclusion showed that there was a positive correlation between GDP and spending on education..

Aigbedion, Iyakwari & Gyang (2017), carried out research on the influence of Nigeria's education sector on economic growth. OLS, or ordinary least squares, were used in the investigation. Additionally, the study used an ex-post facto research design. The study's conclusion showed that while government spending on education had a large and negative influence on Nigeria's real gross domestic product, the education sector had a beneficial effect on the country's economic growth. It was suggested that in order to enhance the contribution of the education sector to Nigeria's economic growth, the government should make sure that money for education are allocated appropriately and completely through budget preparation, execution, and oversight..

A lot of research was done on the empirical literature regarding how government spending affects the performance of Nigeria's education system. It is worth noting that most of these studies focused on literacy rate/human capital development as a proxy for education performance. The few that employed Total School enrolment segregated it on primary school or secondary school or tertiary school enrolments. However, this study used total school enrollment as a proxy for education sector performance to analyze the impact of

government spending on the sector's performance.. This was considered appropriate because the provision of infrastructures like classroom blocks, hostel accommodations, conducive learning environment, employment and regular payment of teachers' salaries and allowances would most likely attract enrolment in schools while the absence of these infrastructures might discourage enrolment.

Secondly, for the few that employed Total School Enrolment as a variable or proxy for the performance, the variables were conducted independently, example, Total School Enrolment in primary school by one scholar; total school enrolment in secondary school by another. But this study examined Total School Enrolment in Nigeria. These are the existing gaps in the body of knowledge which the study tried to fill up.

3.0 METHODOLOGY

The study utilized an ex-post facto research design and gathered time series data from the Central Bank of Nigeria (CBN) statistical bulletin for a 40-year period (1981–2020) on capital expenditure, revenue expenditure, total school enrollment, and poverty rates, which were used as study variables. The model used to estimate the study parameters was a standard multiple regression format, which looked like equation 2:

$$TSE = \int(GCEE, GREE, POVR) \quad (2)$$

The econometric model is specified in equation 3:

$$TSE_t = \beta o + \beta_1 GCEE_t + \beta_2 GREE_t + \beta_3 POVR_t + .. \quad (3)$$

Where:

TSE_t = Total school enrolment in year t

$GCEE_t$ = Government Capital Expenditure on Education in year t

$GREE_t$ = Government Recurrent Expenditure on Education in year t

$POVR_t$ = Poverty Rate in year t as control variable

βo = Intercept

β_1-β_2, β_3 = Parameter estimates

U_t = error terms

To create a solid foundation for accurate model parameter estimate, the gathered data was put through pre-estimation diagnostic tests utilizing unit root, cointegration, and descriptive and correlation analysis. The economic variable's short- and long-term behaviors were reconciled using the Error Correction Mechanism (ECM) (Gujarati and Porter, 2009). As a result, the ECM offered a superb framework that allowed for the application of both data and information gleaned from economic theory. The ARDL was chosen as the best estimating method for the study based on the results of the diagnostic tests that were performed..

4.0 RESULTS AND DISCUSSIONS

The results of the analysis are shown in Table 1.

Table 4 displays the findings of the descriptive analysis that was done on the study's data collection. 4.2. All of the series were transformed in order to standardize the magnitude of the variables because total school enrollment (TSE), government capital expenditure on education (GCEE), government recurrent expenditure on education (GREE), and a control variable, the poverty rate (POVR), have Jarque Bera probabilities of less than 0.05 and are therefore not normally distributed..

Results revealed that strong and positive association exists between total school enrolment and each of the focused independent variables (government capital and revenue expenditures to education) and the control variable, poverty rate. Again, the relationship between each pair of independent variable is similarly strong and positive, suggesting the likelihood of the problem of multicollinearity in the series.

Table 1: Descriptive Analysis

	TSE	**GCEE**	**GREE**	**POVR**
Mean	32769.31	24.47375	128.6187	23.97000
Median	29071.58	17.55000	50.78500	25.00000
Maximum	118486.7	71.20000	593.4385	40.00000
Minimum	15752.58	0.010000	0.160000	10.20000
Std. Dev	18691.37	24.19173	163.4994	10.52697
Skewness	2.528410	0.436061	1.121295	0.036690
Kurtosis	12.03254	1.573893	3.028862	1.469736
Jarque-Bera	178.5969	4.657299	8.383398	3.911820
Probability	0.000000	0.037427	0.015121	0.141436
Sum	13107720	978.9500	5144.748	958.8000
Sum Sq. Dev	1.36E+10	22824.35	1042550	4321.864
Observations	40	40	40	40

Source: Researcher Computations from E-Views 10

Table 2: Correlation Coefficient

	TSE	GCEE	GREE	POVR
TSE	1.000000			
GCEE	0.990227	1.000000		
GREE	0.984954	0.997039	1.000000	
POVR	0.996256	0.99546	0.989167	1.00000

Source: Researcher Computations from E-Views 10

Table 3: Unit Root Test

Variables	**ADF stat. (LEVELS)**	**5% critical Value**	**ADF.stat. FIRST DIFFERENCE**	**5% critical value**	**REMARK**
Total school enrolment (TSE)	-4.932327	-2.938987			I(0)
Government capital expenditure on education (GCEE)	0.618761	-2.938987	-5.190374	-2.943427	I(1)
Government recurrent expenditure on education (GREE)	1.854100	-2.938987	-3.710655	-2.971853	I(1)
Poverty rate (POVR)	-0.286498	-2.938987	-6.798697	-2.941125	1(1)

Source: Researcher's Compilation from E-View 10.

Table 4: Co-integration Test Result.

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.432549	43.41654	47.85613	0.1227
At most 1	0.294631	21.88571	29.79707	0.3049
At most 2	0.202827	8.622429	15.49471	0.4015
At most 3	0.000223	0.008469	3.841466	0.9263

Source: Researcher's Compilation from E-View 10.

Table 5: Error correction mechanism and short-run coefficients

ECM Regression
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECT(-1)	-1.075222	0.159460	-6.742895	0.0000

Source: Author's computations using E-Views 10.0

Table 6: ARDL Short-Run Estimates of TSE Model Parameters

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
TSE(-1)	-0.075222	0.169250	-0.444444	0.6595
GCEE	-266.4673	504.2774	-0.528414	0.6006
GREE	78.46350	50.27130	1.560801	0.1278
POVR	386.3900	769.4157	0.502186	0.6188
C	22565.37	11996.96	1.880925	0.0686

R-squared	0.273193
Adjusted R-squared	0.187687
F-statistic	3.194994
Prob(F-statistic)	0.024873
Durbin-Watson stat	2.064816

Source: Author's computations using E-Views 10.0

Table 7: ARDL Bounds Test for Co-integration Results

F-Bounds Test — Null Hypothesis: No levels relationship

Test Statistic	**Value**	**Signif.**	**I(0)**	**I(1)**
			Asymptotic: n=1000	
F-statistic	8.136135	10%	2.37	3.2
K	3	5%	2.79	3.67
		2.5%	3.15	4.08
		1%	3.65	4.66

Source: Author's computations using E-Views 10

Table 8: ARDL Long-Run Coefficient Estimates

Dependent Variable: D(TSE)
Selected Model: ARDL(1, 0, 0, 0)
Case 2: Restricted Constant and No Trend
Date: 03/14/22 Time: 23:51
Sample: 1981 2020
Included observations: 39

Conditional Error Correction Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	22565.37	11996.96	1.880925	0.0686
TSE(-1)*	-1.075222	0.169250	-6.352873	0.0000
GCEE**	-266.4673	504.2774	-0.528414	0.6006
GREE**	78.46350	50.27130	1.560801	0.1278
POVR**	386.3900	769.4157	0.502186	0.6188

Source: Author's computations using E-Views 10.0

Table 9: Post estimation Test

Test Conducted	Result Obtained	Remarks/Conclusion
Linearity	Probability of t-value from Ramsey Reset test = 0.6794	Since P(0.6794) > 0.05, the linearity assumption is desirable, meaning that the model is correctly specified.
Serial Correlation /Autocorrelation	Probabilities of obs-chi square (2) (1.764301) >0.05	There is no problem of serial/auto correlation in the series
Heteroscedasticity	Breusch-Godfrey Test probability of Obs Chi-square of 0.7095	Since 0.7095 > 0.05, we conclude that there is no problem of heteroscedasticity

Source: Author's computations using E-Views 10.0

4.1 Unit Root Test

To make sure that none of the series is integrated past order one, or I(1), the test for the data's unit root was conducted using the Augmented Dickey Fuller (ADF) unit root approach.. The results obtained from the test are shown in Table 3. Table 3 shows the Unit Root test results conducted. According to the findings, government capital expenditure on education (GCEE), government recurrent expenditure on education (GREE), and total school enrollment (TSE) all reached stationarity at level and poverty rate (POVR) were all stationarity at first difference I(1). Having identified the mixed order of integration in the model, 1(1) and 1(0), the study checked for long run relationship using co-integration and the results are reported in Table 4.

From the co-integration values in Table 4, trace statistic indicates no co-integrating equation at 5% degree of freedom and this implies that there exists no long-run relationship among explanatory variables. Accordingly, ECM was executed to determine the short-run coefficient (marginal effect) for identifying the existence or otherwise of short-run relationship between dependent variable and independent variables, and the possible speed of adjustment from short to long run equilibrium. Thus, ECM enabled the study to ascertain whether the model is capable of adjusting towards long-run equilibrium. First, unit root test on the error correction Term (ECT) was carried out and the result of the ECM and short-run coefficient estimates of the ARDL model are reported in Table 5.

According to the findings, government capital expenditure on education (GCEE), government recurrent expenditure on education (GREE), and total school enrollment (TSE) all reached stationarity at level. As a result, in the current year, about 107.5% of the disequilibria from the shock of the previous year converge back to the long-run equilibrium. Once more, the ARDL is the most appropriate estimating technique to be utilized in reporting and interpretation because the unit root test results did not match the fundamental premise of ECM, which states that all series are integrated at first difference, 1(1), and the ECT at 1(0). Table 6 displays the outcomes of the ARDL estimates.

The adjusted R-squared (0.187687), which is used to measure the goodness of fit of the ARDL model, showed that, overall, government capital and recurrent expenditures for education (GCEE and GREE) accounted for roughly 18.8% of the total variations in total school enrolment (TSE) after controlling for the poverty rate (POVR). This left 81.2% of the variation affected by factors not included in the study.Therefore, government planned spending on education is not the primary factor influencing overall school enrollment.

The model is accurately stated, as evidenced by the F-statistic (3.194994), which is reported to be significant at the 5% level (P = 0.024873 < 0.05). Given that the Durbin-Watson statistic of

2.064816 falls between the appropriate range of 1 and 3, as recommended by Field (2009), it seems unlikely that multicollearity will be an issue. The probabilities of each independent variable's t-statistic—GCEE and GREE—measure the short-term impact on the dependent variable, or TSE. Because the two independent variables' t-statistics show that they are not statistically significant and that their respective P-values are less than 0.05, the results suggest that GCEE and GREE have no discernible short-term effects on TSE. Table 7 displays the results of the study's investigation into the potential long-term causal relationship between government spending on education and total school enrollment in Nigeria using the ARDL limits test for co-integration.

In an ARDL model, the bonds test takes cointegration of the variables into consideration. The null hypothesis that there is no long-term association between the series is rejected since the F-stat (8.136135) is bigger than the upper-bound 1(1) at the 5% critical value of 3.67.. The study concludes that long run relationship exists among the series, hence the long run estimates were executed and reported for interpretation in Table 8 whose estimated coefficients of the long-run relationship show that there is an inverse relationship between government capital expenditure to education (GCEE) and total school enrolment (TSE) over the long run. GCEE's effect on TSE is negative but negligible.

The capital expenditure to education (GCEE) coefficient is projected to be -266.4673. This suggests that, all other things being equal, a 1% increase in government capital expenditure to education (GCEE) will result in a fall in total school enrollment (TSE) of about 266.5 million. However, there is a positive, albeit slight, correlation between government recurrent expenditure to education (GREE) and total school enrollment (TSE).

The estimated coefficient of government recurrent expenditure to education (GREE) is 78.4635.The results of the estimated coefficients of the long-run relationship in table 8 indicate the existence of inverse relationship between GCEE and TSE in the long-run with the and that government capital expenditure to education (GCEE), has a negative but insignificant effect on total school enrolment (TSE) in long-run This means that, assuming everything else is equal, a 1% increase in government recurrent expenditure to education (GREE) will eventually result in an increase in total school enrollment (TSE) of about 78.5 million.

Post estimation diagnoses for residual and stability tests were carried out on the model parameters to ascertain whether the basic assumptions were met and thus confirm the fitness/appropriateness of the estimates for use in testing the set hypotheses and in making policy recommendations. The results from the tests are reported in Table 9 with the stability plots in Figures 1 and 2

In Table 9, the post estimation diagnostic tests indicate that there are no problems of serial or auto correlation and heteroscedasticity, and that the linearity diagnostic has no evidence of the existence of any specification error. Also, the Cusum and Recursive Residual tests were carried out to check for the stability of the parameters in the model as shown in Figures 1 and 2. Given that the blue line falls inside the red ridge lines in Fig. 1, the Cusum stability map suggests that the model is quite stable. Additionally, the recursive residuals plots in Figure 2 show that, with the exception of the earlier research years (1993 and 1994), the blue line in the model is mostly stable. The post-estimation test results affirm to the correctness and stability of the estimated parameters and are presumed to be meaningful for interpretation, for testing the set hypotheses and for making policy recommendations.

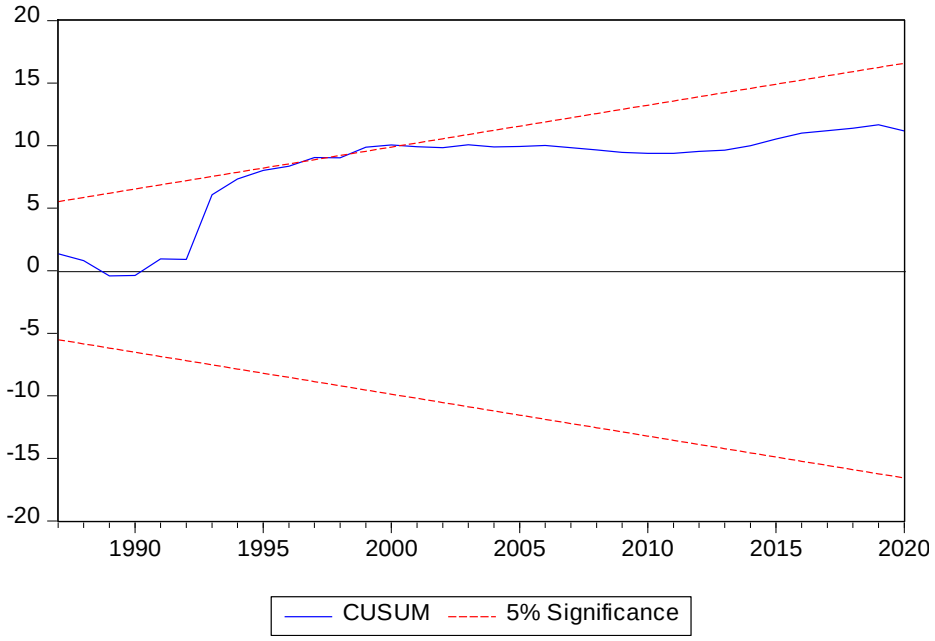

Figure 1: Cusum Stability Plot

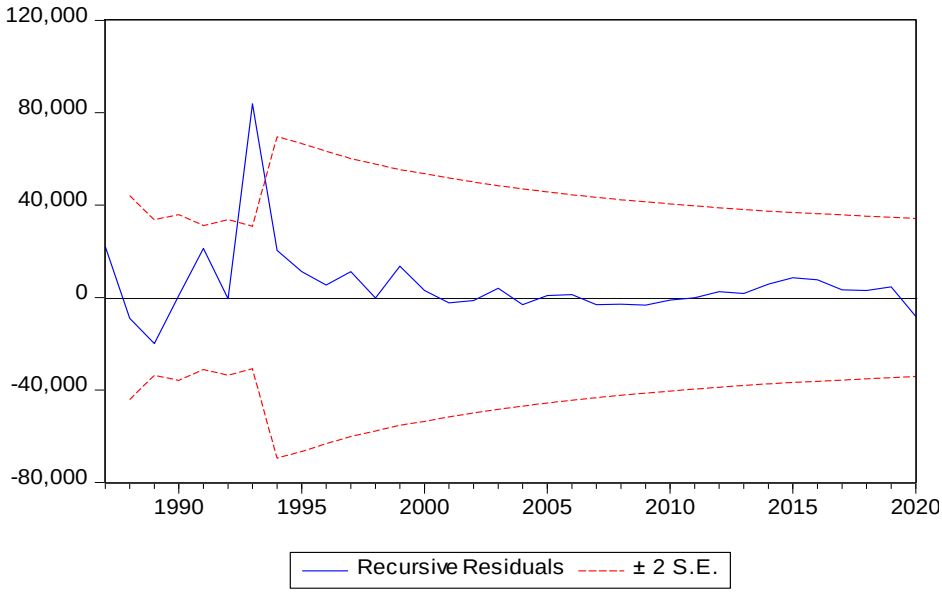

Figure 2: Recursive Residuals Plot

4.2 Hypotheses Testing

The hypotheses formulated for this study are accordingly restated for testing as follows:

Testing for the effect of government capital expenditures to the education sector on total school enrolment in Nigeria.

HO_1: *Government Capital Expenditures to Education sector have no significant effect on total School Enrolment in Nigeria*

From table 6, GCEE t-statistic value of 0.528414 is shown to be insignificant at 5% level (P = 0.6006 > 0.05). Accordingly, the study fails to reject the stated null hypotheses (Ho_1) and conclude that government capital expenditures to the education sector have no significant effect on total school enrolment in Nigeria.

Testing for the influence of Government Recurrent expenditures to the education sector on total school enrolment in Nigeria

HO_2: *Government Recurrent expenditures to the education sector do not have any significant influence on total school enrolment in Nigeria.*

Similarly, results from table 6 shows that the t-statistic for GREE of 1.560801 is not statistically significant at 5% level (P = 0. 0.1278 > 0.05). Thus, the study failed to reject the second null hypothesis (HO_2) and concluded that Government Recurrent expenditures to the education sector do not have any significant influence on total school enrolment in Nigeria.

4.3 Discussion of Findings

The study examined the effect of government expenditure on the performance of the education sector and economic growth in Nigeria.Two stated hypotheses were used to analyze the study. The first hypothesis's outcome showed that government capital investments in the education sector have no appreciable impact on Nigeria's overall school enrollment rate. The conclusion is supported by the fact that throughout time, Nigeria's government has allocated a capital budget to the education sector that is woefully insufficient to support the necessary infrastructural growth in the field. For example, between 1980 and 2010, the total government spending in Nigeria on education was less than 26% of GDP, well below the bare minimum that the United Nations Educational, Scientific, and Cultural Organization (UNESCO) suggested.

Over the years, Nigeria's education system has received inadequate support from the government, which has negatively impacted the sector's performance and its contribution to GDP, per capita GDP, and other human development metrics. The majority of Nigerian schools have overcrowding, poor administration, poor intra-sectorial distribution, and poor sanitation as a result of this inadequate funding. The resultant and combined effects of these inconsistencies are the creation of half-baked graduates, a lack of human resources and educational materials, a brain drain from the public sector due to a lack of qualified teachers, a lack of institutional inputs, a lack of classrooms, and a host of other issues; low economic growth due to low economic development.

The study's conclusion is consistent with that of Adowa (2014), who argued that government capital expenditures in the education sector have no appreciable impact on the overall number of students enrolled in schools in Nigeria. Omoogun (2017), on the other hand, disagreed with this assertion.

The second hypothesis's outcome showed that the overall number of students enrolled in schools in Nigeria is not significantly impacted by government recurrent expenditures in the education sector. This outcome is also consistent with the fact that both the nation's previous and current governments have failed to give the education sector the necessary attention that it needs. Due to the government's seeming lack of concern for the education sector, there have been constant strikes for a number of years. One of the problems is that lecturers' entitlements have not been paid for a backlog of years. The outcome is consistent with the findings of Kabuga and Mustapha (2015), who concurred that government recurrent expenditures to the education sector do not significantly affect the

overall number of students enrolled in schools in Nigeria. On the other hand, Odeleye (2012) disagreed with the conclusion that government recurrent expenditures to the education sector do not significantly affect the overall number of students enrolled in schools in Nigeria..

5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

The study examinedthe effect ofgovernment expenditure on the performance of the education sector and Total school enrolment in Nigeria. The findings of the study revealed that:

1. Government capital expenditures to education sector have negative and insignificant effect on total school enrolment in Nigeria.
2. Government Recurrent expenditures to the education sector do not have any significant influence on total school enrolment in Nigeria.

5.2 Conclusion

It is impossible to overstate the impact that government spending has on how well the nation's education system performs. To improve the performance of the education sector, the Nigerian government allots a different amount of money to it each year. But the Nigerian education system has long been beset by issues, and things have recently gotten worse due to a series of strikes by elementary and secondary school teachers as well as professors at the nation's university institutions.

The majority of those involved in the education sector blamed these issues on the government's inadequate funding of the field, which frequently makes it difficult to pay employees' salaries and other benefits at their various institutions across the nation. As a result, the institution is producing graduates who are only partially prepared, and instructors and lecturers are not giving their all to the students. Therefore, the study looked at how government spending affected Nigeria's economic growth and the efficiency of the education sector. The study's conclusions showed that government capital investments in the education sector have no discernible impact on Nigeria's overall school enrollment rate. The overall number of students enrolled in schools in Nigeria is not significantly impacted by recurring spending in the education sector. In summary, the state of the Nigerian education system seems unappealing, of poor quality, with a narrow scope and concerning prospects.

5.3 Recommendations

The following recommendations were made by the researcher;

1. According to the results of the current study, capital expenditures to the education sector are not having the desired positive effects of increasing total school enrollment in Nigeria, so the Federal government of Nigeria needs to immediately checkmate the management of capital expenditure disbursements to the sector in order to prevent leakages.
2. 2. The government should raise ongoing spending in the education sector, as this will improve Nigeria's overall school enrollment rate and enable greater compensation for employees in the field..

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