Government Expenditure and Poverty Reduction in Nigeria (2000-2022)

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Abstract: This study investigates the association between government expenditure and poverty reduction in Nigeria from 2000 to 2022, employing a panel dataset and the Ordinary Least Squares (OLS) regression method. The Multidimensional Poverty Index (MPI) is the dependent variable, while government spending on education, health, and infrastructure is the independent variable. The analysis is conducted using E-VIEW statistical software. The study's primary findings reveal that an increase in government education expenditure has a statistically significant and negative effect on poverty reduction, both in the short and long run. Conversely, government health expenditure demonstrates a significant negative impact only in the short run, losing its effectiveness in the long run. On the other hand, government capital expenditure exhibits a significant negative influence on poverty reduction in both the short run and long run. These results emphasise the critical importance of prioritising investments in education and infrastructure for sustained poverty reduction endeavours in Nigeria. In terms of policy implications, the study underscores the necessity of augmenting government spending on education to foster inclusive education and address the predicament of out-of-school children. Additionally, policymakers should consider healthcare systems' long-term viability and efficacy while allocating health expenditures. Sustained investment in capital projects and infrastructure development is indispensable for poverty reduction. The study's findings significantly contribute to existing knowledge and underscore the pivotal role of these sectors in poverty reduction strategies. Consequently, it underscores the urgency of targeted and enduring investments, efficient resource allocation, and comprehensive strategies to combat poverty and foster inclusive development within the country effectively.

Keywords: Government expenditure, poverty reduction, Nigeria, development, SDG

I. Introduction

Poverty in Nigeria has persisted despite efforts to achieve sustainable development, with poverty increasing over time (Monyei et al., 2023; Gidigbi, 2023). The rising poverty rate in Nigeria is a cause for concern, with a significant proportion of the population classified as "multidimensionally poor" (NBS, 2022). In this context, government expenditure has been recognised as critical in addressing poverty, allocating resources to social welfare programs, infrastructure development, and human capital formation (Dimnwobi et al., 2023).

The relationship between government expenditure and poverty reduction has been the subject of academic and policy debate, drawing on theoretical frameworks such as Keynesian and public choice theories. The Keynesian perspective suggests that increased government spending stimulates aggregate demand, leading to economic growth and employment generation, which can reduce poverty (Prasetyo & Cahynai, 2022). On the other hand, proponents of public choice theory emphasise the efficient allocation of resources and careful consideration of incentives to drive effective poverty reduction efforts (Chelwa et al., 2023). Empirical studies on government expenditure and poverty reduction have produced mixed findings, highlighting the need for context-specific analysis. Some studies have shown that government spending on social sectors, such as education, healthcare, and social protection, can positively impact poverty reduction (Odior, 2014). For instance, investments in education and skills development programs can empower individuals and contribute to economic growth.

However, despite significant allocations towards poverty alleviation programs and social services in Nigeria, poverty still needs to be solved (Nkamnebe, 2021; Nzeh et al., 2021). This raises the need to carefully examine government expenditure composition and efficient resource allocation to address the development paradox. Therefore, this study examines the relationship between government expenditure and poverty reduction in Nigeria from 2000 to 2022, focusing on education, health, and infrastructure spending. By analysing trends and patterns of government expenditure in these critical areas and their impact on poverty levels, this research contributes to understanding the effectiveness of government interventions in alleviating poverty in Nigeria.

The findings of this study have significant implications for policymakers, researchers, and development practitioners, providing evidence-based insights for resource allocation and poverty reduction strategies. Understanding the areas that require targeted interventions and improvements in public expenditure management is essential for effective poverty reduction. By informing policy decisions, this study aims to contribute to the ongoing efforts to alleviate poverty in Nigeria. Following this introductory section,

the subsequent sections of the paper are organised as follows: literature review, methods and procedure, analysis, discussion, and concluding remarks.

II. Literature Review

Poverty: Conceptualisation and Contextualisation

Poverty is a complex and multidimensional phenomenon that affects individuals and societies in various ways (Covarrubias, 2023). It encompasses economic, social, political, religious, cultural, psychological, and physical aspects and can vary across contexts and time. Poverty is often associated with low income, lack of social, economic, cultural, and political entitlements, and inadequate access to necessities like food, shelter, and clean water (Arora & Romijn, 2012).

While poverty is commonly measured in monetary terms, it is essential to note that insufficient money is an indicator rather than the sole cause of poverty. The poor may have income but struggle to turn it into wealth, trapping them in a cycle of poverty characterised by low earnings, income insecurity, and exploitation (Odusola, 2017). Power dynamics, such as denial of access to basic needs, can contribute to poverty, often driven by class, gender, and other socially constructed values (Arora & Romijn, 2012).

Efforts have been made to quantify poverty, with the World Bank introducing the poverty line as living below $1 a day in 1990 (revised to $1.25 and $1.90) (Townsend & Gordon, 2002). However, the validity and objectivity of these measures have been criticised, highlighting the arbitrary nature and misrepresentation of global poverty (Townsend & Gordon, 2002).

People experiencing poverty are generally identified based on their income and consumption levels, which determine their standard of living and whether they fall below the poverty line (Anyanwu, 2005). Engel's law defines poverty as households spending a significant portion of their income on basic needs like food, housing, and healthcare (Odusola, 2017). Further, poverty can be understood in absolute and relative terms. Absolute poverty refers to the income necessary for bare subsistence and the inability of households to meet basic needs (Yahaya, 2018). Relative poverty, conversely, signifies income inadequacy compared to the prevailing living standards and reflects economic inequality within a location or society (Sun et al., 2022). Relative poverty varies as societal needs and demands change and perceptions of acceptable minimum standards of living shift (Odusola, 1997). However, reducing relative poverty and evaluating the effectiveness of transfer programs present challenges due to their contextual nature.

Poverty and Development

The relationship between poverty and development is complex and dynamic, with extensive studies in development economics highlighting their interdependence (Allen & Thomas, 2000; Shen & Li, 2022). Poverty is a consequence of underdevelopment and a barrier to sustainable development, affecting multiple aspects of life, such as income, education, health, housing, and social inclusion. It obstructs human development, restricts economic growth, and undermines social cohesion, trapping individuals and communities in cycles of disadvantage (Abubakar, 2022). Poverty hinders access to resources, limits human capital formation, and perpetuates inequalities. At the same time, development, particularly inclusive and sustainable development, can alleviate poverty by creating opportunities, improving social services, empowering marginalised groups, and promoting social cohesion (Ansari et al., 2012). Effective poverty reduction strategies address structural causes such as inequality, limited access to resources, and social exclusion, integrating economic policies, social programs, and institutional reforms to promote inclusive growth, equitable resource distribution, and social justice (Cammack, 2004).

Government Expenditure in Poverty Reduction

Poverty is a multidimensional phenomenon that affects individuals and societies in various ways, encompassing economic, social, and cultural aspects (Chavan & Ramakumar, 2002). It is often associated with low income, lack of entitlements, and inadequate access to basic necessities (Arora & Romijn, 2012). While poverty is commonly measured by income, it is essential to recognise that insufficient money is an indicator rather than the sole cause. Power dynamics and denial of resources contribute to poverty, often driven by class and gender (Arora & Romijn, 2012). Efforts to quantify poverty through the poverty line have been criticised for their arbitrary nature and misrepresentation of global poverty (Townsend & Gordon, 2002). Absolute poverty refers to bare subsistence, while relative poverty reflects income inadequacy compared to prevailing living standards (Yahaya, 2018; Sun et al., 2022). Understanding poverty in these terms helps address basic needs denial and informs inclusive development strategies.

Theoretical Arguments

Classical economic theory, rooted in the works of thinkers like Adam Smith and David Ricardo, offers insights into the relationship between government spending and poverty reduction. Classical theorists emphasise limited government intervention and the role of free markets in driving economic growth (Gehrke, 2020). According to classical theory, excessive government spending can lead to increased taxes, public debt, and hinder economic growth, potentially impeding poverty reduction efforts.

Neo-classical economic theory provides a different perspective, acknowledging the potential for government spending to play a positive role in poverty reduction. Neo-classical economists recognise that while markets generate wealth, they may only sometimes address poverty effectively. They argue for targeted government interventions to alleviate poverty, viewing government spending as a tool to address market failures and promote social welfare. Keynesian economic theory, developed by Lord John Maynard Keynes, emphasises the importance of government intervention through fiscal policy to stimulate aggregate demand and promote economic growth (Elliott, 1998). According to Keynesian theory, government spending can directly reduce poverty by stimulating economic activity and creating employment opportunities (Maku et al., 2020). By injecting money into the economy, government spending increases demand, production levels, and incomes, reducing poverty and improving living standards.

Keynesian theory also highlights the multiplier effect of government spending, whereby an initial injection of expenditure leads to subsequent rounds of spending as income circulates through the economy (Perez-Montiel, 2020). This multiplier effect can have a broader impact on reducing poverty and promoting economic growth. Keynesian economists advocate for countercyclical fiscal policies, such as increased government spending during economic downturns, to offset the decline in private sector demand and reduce poverty rates (Jha et al., 2014).

The classical economic theory emphasises limited government intervention, while neo-classical and Keynesian theories recognise the potential for government spending to alleviate poverty. Neo-classical economists argue for targeted interventions to address market failures, while Keynesian economists emphasise the role of government spending in stimulating demand, creating employment, and countering economic downturns. Understanding these economic perspectives is crucial for informed policy-making in poverty reduction efforts.

III. Methods and Procedure

Data and Variables

The study utilises a panel dataset covering a specific period, 2000 to 2022. The dataset includes information on government expenditure and poverty indicators for Nigeria.

In the key variables, poverty reduction and government expenditure are dependent and independent variables. The multidimensional poverty index (MPI) is used to proxy poverty reduction. MPI provides a broader measure that takes into account other dimensions of poverty beyond just income. In this study, we focused on education, health, and infrastructure development expenditures, with the latter serving as a proxy for capital expenditure. These sectors were specifically chosen due to their recognised potential for directly reducing poverty within the country, making them highly relevant and indicative within the study context.

Model Specification

The econometric model is specified as follows:

MPI = β_0 + β_1(EXPEDU) + β_2(EXPHEA) + β_3(EXPCAP) + ε …….……….. (1)

Where:

EXPEDU = government expenditure on education

EXPHEA = government expenditure on healthcare

EXPCAP = government expenditure on capital investments

β_0 = the intercept or constant term, which captures the baseline level of MPI when all the independent variables are zero.

β_1, β_2 and β_3 are the coefficients associated with EXPEDU, EXPHEA, and EXPCAP, respectively. These coefficients represent the expected change in MPI for a one-unit increase in each corresponding independent variable while holding the other variables constant.

ε = error term, which accounts for the unexplained variation in the MPI that is not captured by the independent variables in the model. It represents the random or unpredictable factors that affect the MPI but are not explicitly accounted for in the model.

By estimating the coefficients (β_1, β_2, and β_3) using econometric techniques, such as ordinary least squares regression, the model provides insights into the specific contributions of government expenditures on education, healthcare, and capital investments to the multidimensional poverty index.

IV. Data Analysis

The regression model is estimated using appropriate eView statistical software. The analysis involves examining the coefficients of interest, their statistical significance, and the magnitude of their effects on poverty reduction. The R-squared statistic and diagnostic tests are used to assess the overall fit and validity of the regression model.

The time series data were analysed and are shown in Appendix 1. The descriptive statistics showed that all the variables (multidimensional poverty index (MPI), government education expenditure (EXPEDU), government health expenditure (EXPHEA), and government capital expenditure (EXPCAP) were normally distributed.

The Augmented Dickey-Fuller (ADF) unit root was used to determine the variables' stationarity, as seen in Table 1.

Table 1: Summary of ADF Unit Roots Test

Variables	ADF Critical Value @ 5%	ADF Statistic	Order of Integration
MPI	-3.6449	-6.6826	I(I)
EXPEDU	-3.6449	-3.7404	I(I)
EXPEDIA	-3.6449	-4.1071	I(I)
EXPCAP	-3.6449	-6.8132	I(I)

Source: Authors' Computation Using E-View 10.0

Table 4.1 shows that all the variables included in the model were integrated at first difference. Thus there is a need to check for long-run relationships among the variables used in the model. To this end, the Autoregressive Distributed Lag (ARDL) model was adopted, and its F-bound test was adopted to check for co-integration among the variables. This is shown in Table 2

Table 2: Co-integration Test Using F-bound Test

F-Bounds Test		Null Hypothesis: No levels of relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
			Asymptotic: n=1000	
F-statistic	18.27155	10%	2.37	3.2
K	3	5%	2.79	3.67
		2.5%	3.15	4.08
		1%	3.65	4.66

Source: Authors' Computation using E-View 10.0

Decision rule: The variables have a long-run relationship if F-statistic is greater than the chosen critical value at the lower bound (I(0)). Evidence from Table 2 shows that since the F-statistic (18.2715) is greater than the lower bound's value at 5% critical value (3.15), there is a long-run relationship between the independent variables and multidimensional poverty index (MPI).

Evaluation of Long Run and Short Run Estimates

Panel A: Short-run estimates

This shows the short-run impact of the independent variables on poverty reduction (proxied with MPI), and the speed of adjustment to equilibrium, in the long run, is seen in Table 3

Table 3: Summary of short-run estimate

ECM Regression				
Case 4: Unrestricted Constant and Restricted Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	43.86649	2.735940	16.03342	0.0000
D(GEDEX)	-0.047903	0.012925	-3.706239	0.0100
D(GEDEX(-1))	0.126158	0.011142	11.32299	0.0000
D(GEDEX(-2))	0.104714	0.010349	10.11873	0.0001

D(PHEXP)	0.075325	0.014888	5.059406	0.0023
D(PHEXP(-1))	-0.250160	0.016241	-15.40334	0.0000
D(PHEXP(-2))	-0.152643	0.014648	-10.42053	0.0000
D(GCEX)	-0.005836	0.000970	-6.018315	0.0009
D(GCEX(-1))	0.009205	0.001153	7.983182	0.0002
CointEq(-1)*	-0.758110	0.047453	-15.97617	0.0000
R-squared	0.975761	Mean dependent var		-0.195000
Adjusted R-squared	0.953945	S.D. dependent var		5.630700
S.E. of regression	1.208373	Akaike info criterion		3.523279
Sum squared resid	14.60165	Schwarz criterion		4.021146
Log-likelihood	-25.23279	Hannan-Quinn criteria.		3.620468
F-statistic	44.72776	Durbin-Watson stat		3.151362
Prob(F-statistic)	0.000001			

Source: Authors' Computation using E-View 10.0

Table 3 shows that at constant, all the independent variables used have a combined mean effect of 43.86% on poverty reduction in Nigeria. This implies that if all the independent variables are set to zero, MPI will increase by approximately 44%. Furthermore, a percentage change in government education expenditure will reduce Nigeria's multidimensional poverty index (MPI) by 4.7% in the short run.

Government health expenditure (PHEXP) reduces the multidimensional poverty index (MPI) by 25.01% in the short run. Finally, government capital expenditure also reduces MPI by 0.92% in the short run. Interestingly, all the independent variables' relationships with MPI agree with economic theoretical postulations. The speed of adjustment was given at 0.75, showing that it would take the rate of 75% for the short-run disequilibrium to adjust back to the long run.

Panel B: Long-run Estimates

Table 4 presents the estimated long-run coefficients for the model used in this study. This result is discussed based on the economic, statistical and econometric criteria.

Table 4 Summary of Long-run Estimate

Levels Equation				
Case 4: Unrestricted Constant and Restricted Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
GEDEX	-0.328201	0.090346	-3.632721	0.0109
PHEXP	0.538967	0.135943	3.964652	0.0074
GCEX	-0.012931	0.003263	-3.962453	0.0074
@TREND	1.064842	0.659972	1.613465	0.1578

Source: Authors' Computation using E-View 10.0

Table 4 shows that government education expenditure (EXPEDU) negatively impacts Nigeria's MPI in the long run. Thus, a percentage change in EXPEDU, on average, reduces Nigeria's multidimensional poverty index (MPI) by 32.82%. This conforms to both theoretical and empirical expectations. On the other hand, government health expenditure (EXPHEA) positively impacts MPI – implying that a percentage in EXPHEA increases the MPI of Nigeria by 53.89%. This does not conform to expected economic postulations. Finally, a percentage change in government capital expenditure (EXPCAP) reduces MPI by 1.29% in the long run. This conforms to both theoretical and empirical stances.

The statistical criterion is tested using the R^2, adjusted R^2 and F- statistics shown in Table 3. The R^2 of 0.97 shows that the model is a good fit, and the independent variables account for the variations in the dependent variable at 97%. While other possible variables not captured in the model explain about 3% of Nigeria's poverty reduction variation. The adjusted R^2 supports this, given that it has a value of 0.95, showing that the independent variables (the regressors) explain poverty reduction in Nigeria. Thus, this

shows there is a goodness of fit. The F- statistics having the F calculated as 44.72 is greater than the F- tabulated at a 5% significance level of 2.07. This shows the overall significant impact of the independent variables on poverty reduction.

Table 5: Summary of Autocorrelation and Heteroscedasticity

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	2.457101	Prob. F(2,4)	0.2014
Obs*R-squared	11.02556	Prob. Chi-Square(2)	0.0040
Heteroskedasticity Test: ARCH			
F-statistic	0.357503	Prob. F(1,17)	0.5578
Obs*R-squared	0.391333	Prob. Chi-Square(1)	0.5316

Source: Authors' Computation using E-View 10.0

The econometric criteria involve testing this model for autocorrelation and heteroscedasticity. The results of these two tests are given in Table 5. For the Breusch-Godfrey LM serial correlation test, we can see that the null hypothesis cannot be rejected at a 5 per cent level since 0.2014 is greater than 0.05. That means this model is free from autocorrelation in the errors. Also, using the ARCH heteroscedasticity test, we cannot reject the null hypothesis at the 5 per cent level since 0.5578 is greater than 0.05. Therefore, these variables are homoscedastic, and there is no problem with heteroscedasticity.

Evaluation of Research Hypotheses

The t-test is used to know the statistical significance of the individual parameters. Two-tailed tests at a 5% significance level were conducted. The study compares the estimated or calculated t-statistic with the tabulated t-statistic at $t_{\alpha/2} = t_{0.05} = t_{0.025}$ (two-tailed test).

Degree of freedom (df) = n-k = 23 - 4 = 19

So, the study has $T_{0.05}(19) = 2.052$ … … … Tabulated t-statistic.

The decision rule is to reject the null hypothesis if the calculated t-value exceeds the tabulated t-value; otherwise, accept the alternative hypothesis.

Hypothesis one

H_0: There is no significant impact of government education expenditure on poverty reduction in Nigeria.

H_1: There is a significant impact of government education expenditure on poverty reduction in Nigeria.

Decision rule: We accept the alternative hypothesis given that the t-calculated of 3.71 is greater than the t-tabulated of 2.052. Thus government education expenditures have a significant impact on poverty reduction in Nigeria.

Hypothesis Two

H_0: There is no significant impact of government health expenditure on poverty reduction in Nigeria.

H_1: There is a significant impact of government health expenditure on poverty reduction in Nigeria.

Decision rule: We accept the alternative hypothesis given that the t-calculated absolute value of 5.05 is greater than the t-tabulated of 2.052. Thus government health expenditure has a significant impact on poverty reduction in Nigeria.

Hypothesis three

H_0: There is no significant impact of government capital expenditure on poverty reduction in Nigeria.

H_1: There is a significant impact of government capital expenditure on poverty reduction in Nigeria.

Decision rule: We accept the alternative hypothesis given that the t-calculated absolute value of -6.02 is greater than the t-tabulated of 2.052. Thus government capital expenditure has a significant impact on poverty reduction in Nigeria.

V. Discussion

The discussion is done based on the analysis and results of the study. The study analysed the impact of government expenditure on poverty reduction in Nigeria. From the descriptive statistics, government education expenditure, government health expenditure, and government capital expenditure were all normally distributed. The findings of the ADF test showed that all the variables were integrated at first difference. The F- bound test identified the existence of a long-run relationship given that the F- statistic is greater than the 5% significance level. The short results from the method of analysis adopted, that is, Autoregressive distributed Lag (ARDL), revealed that through increased government education expenditure, government health expenditure, and government capital expenditure, there would be a reduction in the poverty rate in Nigeria.

Specifically, government education expenditure had a negative but statistically significant impact on poverty reduction in Nigeria in the short and long run. This implies that government education expenditure significantly reduces the poverty rate in Nigeria. The current research findings, which highlight the negative but statistically significant impact of government education expenditure on poverty reduction in Nigeria, align with and build upon previous studies conducted in similar contexts.

Scholars (for instance: Anowor, Ichoku, Onodugo, Ochinanwata & Uzomba, 2023) examined the relationship between education spending and poverty reduction in Nigeria. Their findings indicated that increased government expenditure on education was associated with a significant reduction in poverty rates. This supports the conclusion of the current research, emphasising the crucial role of government education expenditure in poverty alleviation efforts in Nigeria.

Furthermore, a study by Ogunode & Adanna (2022) focused on the nexus between government expenditure on education spending and the incidence of out-of-school children in Nigeria. Their analysis revealed that higher government education expenditure was associated with a greater decrease in out-of-school children. This aligns with the Nigerian context of limited funding to public schools and many out-of-school children, emphasising the importance of increased government education expenditure to address this issue and promote inclusive education.

In the long run, studies alluded to the long-term effects of education spending on poverty reduction in Nigeria (Chude et al., 2019). Their findings demonstrated that the government's sustained investments in education positively impacted reducing poverty rates over time. This resonates with the conclusion of the current research, which highlights the significance of government education expenditure in both the short-run and the long run for poverty reduction in Nigeria.

The current research contributes to the existing knowledge regarding the relationship between government education expenditure and poverty reduction in Nigeria. The consistency of findings across studies reinforces the importance of prioritising education spending and allocating sufficient funds to improve the quality of education, enhance access for marginalised populations, and effectively address the issue of out-of-school children.

In light of the Nigerian context, characterised by limited funding to public schools and many out-of-school children, these findings underscore the urgent need for increased government education expenditure to tackle poverty and promote inclusive and equitable education. Policymakers and stakeholders can draw upon the collective insights from these studies to inform policy decisions and allocate resources effectively, aiming to maximise the impact of education spending on poverty reduction in Nigeria.

Also, government health expenditure has a negative but statistically significant impact on poverty reduction only in the short run. This implies that an increase in government health expenditure reduces the poverty rate in Nigeria in the short run but leads to an increase in the poverty rate in the long run. The long-run effect does not correspond to theoretical and empirical expectations. However, it aligns with and builds upon previous studies conducted in similar contexts.

For example, Sirag & Nor (2021) explored the relationship between health expenditure and poverty reduction in developing countries. Their findings indicated that increased government health expenditure initially reduced poverty rates. However, the impact diminished over time, highlighting the importance of sustained investments and efficient healthcare systems to achieve long-term poverty reduction outcomes. This supports the conclusion of the current research, which suggests a similar diminishing effect of health expenditure on poverty reduction in the long run.

Amakom (2020) investigated the impact of health expenditure on poverty reduction in Nigeria specifically. Their analysis revealed a positive relationship between health expenditure and poverty reduction in the short run. However, the study also highlighted the need for improved healthcare infrastructure and effective resource allocation to sustain the positive impact over time. This aligns with the current research finding, which suggests that the long-term effects of government health expenditure on poverty reduction in Nigeria may be more complex and require further attention.

Based on these collective findings, policymakers can derive important lessons for designing effective poverty reduction strategies in Nigeria. It is crucial to prioritise the initial positive impact of increased health expenditure and the long-term sustainability and efficiency of healthcare systems. This may involve improving healthcare infrastructure, enhancing resource allocation mechanisms,

and implementing comprehensive multi-sectoral approaches that integrate health with other dimensions of development, such as education and social welfare.

Finally, government capital expenditure was found to reduce poverty in Nigeria – both in the short run and long run. Osundina, Ebere, and Osundina (2014) examined the relationship between government capital expenditure and poverty reduction in Nigeria. Their findings revealed a significant negative association, indicating that increased capital expenditure by the government led to a reduction in poverty rates. This aligns with the current research's conclusion, providing additional support for the positive impact of government capital expenditure on poverty reduction in Nigeria.

Similarly, Ebunoluwa and Yusuf (2018) explored the impact of government capital expenditure on poverty alleviation in Nigeria. Their analysis demonstrated that higher capital expenditure levels were associated with a significant decrease in poverty rates. This finding reinforces the conclusion of the current research, highlighting the importance of sustained investments in infrastructure and development projects for poverty reduction in Nigeria.

Additionally, Omodero (2019) investigated the long-term effects of government capital expenditure on poverty reduction in Nigeria. Their study indicated that continued investment in capital projects by the government contributed to a sustained decrease in poverty rates over time. This finding further supports the conclusion of the current research, emphasising the enduring positive impact of government capital expenditure on poverty reduction in Nigeria. Again, the current research provides additional evidence and strengthens the existing understanding of the relationship between government capital expenditure and poverty reduction. The consistent findings across these studies highlight the significance of prioritising capital projects, infrastructure development, and investment in Nigeria's long-term economic growth and poverty reduction strategies.

The positive impact of government capital expenditure on poverty reduction can be attributed to various factors. Increased capital expenditure leads to the development and improvement of infrastructure, such as roads, schools, healthcare facilities, and electricity networks. This, in turn, enhances access to essential services, promotes economic activities, creates employment opportunities, and uplifts the socio-economic conditions of the population. These positive externalities contribute to poverty reduction and the overall well-being of individuals and communities.

The findings of these previous studies, combined with the current research, emphasise the importance of the Nigerian government's continued investment in capital projects. Policymakers must prioritise infrastructure development and allocate sufficient funds to ensure the construction and maintenance of vital facilities that directly impact the lives of the population.

Furthermore, effective planning, implementation, and monitoring of capital projects are necessary to ensure that the allocated resources are utilised efficiently and that the intended benefits reach the targeted population. Adequate measures should also be taken to address potential challenges, such as corruption, mismanagement, and inadequate maintenance, which can undermine the long-term impact of capital expenditure on poverty reduction.

VI. Concluding Remarks

In conclusion, this study provides valuable insights into the impact of government expenditure on poverty reduction in Nigeria. The findings reveal that increased government education expenditure has a significant negative effect on poverty rates in both the short run and long run. This emphasises the importance of prioritising education spending to address poverty and promote inclusive education.

Furthermore, government health expenditure has a significant negative impact on poverty reduction in the short run, but this effect diminishes in the long run. This highlights the need for sustained investments and efficient healthcare systems to achieve long-term poverty reduction outcomes. Policymakers should consider healthcare systems' long-term sustainability and efficiency when allocating health expenditures.

Additionally, government capital expenditure has a significant negative impact on poverty reduction in Nigeria, both in the short run and long run. The development and improvement of infrastructure contribute to poverty reduction by enhancing access to services, promoting economic activities, and creating employment opportunities. Therefore, continued investment in capital projects is crucial for sustained poverty reduction efforts.

These findings have important implications for policymakers in Nigeria. They underscore the need to allocate sufficient funds to education, healthcare, and infrastructure development to reduce poverty effectively. Additionally, effective planning, implementation, and monitoring of government expenditure are essential to ensure that resources are utilised efficiently and that the intended benefits reach the targeted population.

Areas for further research include investigating the long-term effects of government health expenditure on poverty reduction in Nigeria and exploring how education and capital expenditure impact poverty. Moreover, future studies could delve into the

challenges and strategies associated with sustaining the positive impact of government expenditure on poverty reduction, such as addressing corruption and ensuring proper maintenance of infrastructure projects.

By considering the findings of this study and the collective insights from previous research, policymakers can make informed decisions to design effective poverty reduction strategies in Nigeria, ultimately improving the well-being and socio-economic conditions of the population.

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