

GOVERNMENT EXPENDITURE AND SOCIAL INVESTMENT IN NIGERIA: EDUCATION AND HEALTH FINANCING

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Dauda Aaron Impalure (PhD)¹, Adewale Jethro Beke (PhD)², Forongn Aivin Dore (PhD)³

¹Economics Department, Bingham University Karu Nigeria, Nigeria,

²Economics Department, Federal University Lokoja, Nigeria,

³Accounting Department, Air Force Institute of Technology Kaduna, Nigeria

Correspondence: Dauda Aaron Impalure (PhD), aaron.dauda@binghamuni.edu.ng

Abstract

Government spending on social sectors is an important tool for improving social capital and strengthening sustainable development. In Nigeria, public spending on education and health are expected to increase human capital, boost productivity and support long-term social and economic development. Despite the government's spending in these sectors, there are still doubts about the effectiveness of such spending in achieving the desired social outcomes. The study therefore examines government expenditure on social investment in Nigeria, focusing on education and health financing from 2000 to 2025. The study was motivated due to the continuous concern on the sufficiency of government spending on human capital development. Time series data sourced from the Central Bank of Nigeria and the World Bank Data Indicators were used for the study. The data were estimated using the Autoregressive Distributed Lag (ARDL) model to ascertain the long run relationship among the variables after establishing their stationarity. The findings revealed that government expenditures on education showed a negative but statistically significant impact on social investment, while expenditures on health had a positive and statistically significant impact on social investment during the period of the study. Based on these findings, the study concluded that extra funding and good management of the education and healthcare funds are really important for improving social investment in Nigeria. The study recommends that policymakers should increase funding into the health sector and also make education spending more efficient, transparent, and properly monitored so that public resources could translate into better social and human outcomes.

Keywords: Government Expenditure, Social Investment, Education Financing, Health Financing, Human

Capital Development, Nigeria

JEL Classification: C22, H51, H52, I25, O15**1. INTRODUCTION**

One of the issues in public finance and social development was that of government spending. The question often centers on how much public spending can enhance people's welfare and how can the provision of sustainable development be made? Social spending on key areas like education and healthcare are generally seen as the foundation of sustainable development and building human capital (Bognet et al., 2023). Education and health are unique areas of government spending because, while education gives people the skills and knowledge to boost their productivity, investing in healthcare ensures a healthy population ready to contribute to economic growth (Ayeni & Omodude, 2018). In developing countries like Nigeria, these sectors are vital for tackling poverty, inequality and unemployment, while also supporting long-term national development. Funding education provides resources to build schools, train teachers, and improve knowledge and skills, which increase productivity and drives innovation. Similarly, funding healthcare makes sure people can get medical services, cuts down on disease, and improves life expectancy, which all together leads to a healthier and more productive workforce (WHO, 2020).

Ideally, citizens should be able to access schools that are well equipped with qualified teachers, and have functional health care facilities, as well as access to affordable health care and opportunities for them to develop their full potential, regardless of their socioeconomic status. Sadly, Nigeria's situation is far from this hope. The funding of education and health in Nigeria has always been consistently low and in many cases, it has been below the recommended benchmarks (Ayeh et al., 2025). For example, UNESCO (2020) suggests putting 15 to 20 percent of the national budget into education, but Nigeria rarely spends more than 10 percent on education. Between 1981 to 2024, the share of the budget for education averaged around 6 to 8 percent, well below UNESCO's recommendation (CBN, 2024). Similarly, the Abuja Declaration in the year 2001 called for an increase in investment in the health sector in Africa by 15% of the annual budget (WHO, 2023), yet Nigeria's healthcare spending has generally stuck between 4 percent. Consequently, the standard of the education system has been lowered, with few teachers, low quality health centres and a high out-of-pocket expenditure on health by households. The lack of funding for education and healthcare is linked to poor school results, high number of kids not going to school, and poor health status, including high death rates among women and children (World Bank, 2023).

In order to meet these challenges, a number of reforms and intervention programmes are put in place, including the improved budgetary allocation, educational trust funds, universal basic education programmes, primary healthcare reforms and a variety of social investment programmes to improve services delivery. Research has produced a lot of evidence, which results remain inconclusive. For instance, Odetola et al. (2025) found that education and health expenditure relates significantly to human development in developing countries. Similarly, Nwakwanogo (2025) pointed out that the quality of institutions and governance greatly affects the impact of public spending. Other research, like that of Nwokodia (2025), Opara et al. (2023) and Sulaiman & Ahmadu (2023) in Nigeria, found varying degrees and a positive link between government spending and education or health outcomes. Some studies, though, found weak or no real impact, which they link to corruption, unstable policies, dysfunctional institutions and poor resource management. The mixed results suggest that spending more resources doesn't automatically lead to better social outcomes unless it's backed up with effective systems and the right institutions to make those investments work.

Even though existing research gives useful insights into how government spending affects social services performance, there are still some gaps. A relatively large share of Nigerian studies looked at either education expenditure or health expenditure and ignored the linkages between human capital development. Education and health are interdependent; a healthy population can learn more and more education can help the population be healthier. In addition, much of the literature was geared toward aggregate measures of economic growth. This growth-focused approach leaves unanswered questions about how government spending actually works as a way to invest in society, improve wellbeing, reduce inequality and support human development.

The purpose of the study is therefore to address these lacunae in literature particularly the financing of Education and Health and government spending in Nigeria. This study differs from the previous studies which focused mainly on economic growth effects because it takes a more holistic view of socio investment outcomes of government spending in Nigeria. The following formulated hypotheses guide this study to show the validity of the objective.

H₀₁: Education financing has no significant impact on social investment in Nigeria.

H₀₂: Health financing has no significant impact on social investment in Nigeria.

The rest of the study is further structured into literature review, methodology, and then conclusion and recommendation.

2. LITERATURE REVIEW

2.1 Conceptual Review

Three concepts namely: social investment, education expenditure, and health expenditure were reviewed in this study.

- **Social Investment**

Social investment was defined Hemerijck (2017) as the strategic use of public funding for education, health, skills development and other programmes to improve the productive capacities of individuals, increase social inclusion, and ensure sustainable economic growth and long-term societal development. Social investment is also a way of thinking about social policy to enhance human capacity and opportunities, welfare, social mobility, employment, the reduction of poverty and sustainable welfare outcomes (Hemerijck, 2017). Therefore, social investment might be interpreted in terms of the total amount of funds that the government of a country invests in education, health, subsidies and transfers to improve or better the lives of its citizens. Thus, the main goal of social investment is to boost people's skills and opportunities in knowledge-based job markets, helping to increase employment, social inclusion, personal empowerment, and overall happiness.

- **Education Expenditure**

Education financing according to the United Nations Educational Scientific and Cultural Organization (2023) is the system of gathering, distributing, and managing resources to support learning and life skills in the community. The education funding system includes leadership, laws, policies, methods, and management plans to know how to collect and distribute resources. Similarly, the World Bank (2024) defined education expenditure as the expenditures of the general government (current, capital and transfers) on education institutions, educational administration and on the subsidies of private educational institutions and/or private households. Sufficient and fair funding can strengthen the education system to achieve collaboration, flexibility, and innovation, allowing people and communities to adapt to complex global challenges and contribute to sustainable development. Education reduces poverty, improves health,

promotes gender equality, boosts the economy, and strengthens institutions.

- **Health Expenditure**

Health financing is a key part of health systems that can help move towards universal health coverage by improving service coverage and financial protection. Right now, millions of people can't access services because of the cost (World Bank, 2023). Health financing is the way resources are collected, managed and spent to pay for health services. Effective and strategic health financing helps people get the care they need without financial stress, improves everyone's health and builds strong and resilient health systems. Good health financing ensures hospitals and clinics run smoothly, helps more people afford treatments, and supports countries in achieving universal health coverage (World Health Organization, 2024). Health expenditure encompasses all spending on health services, family planning, nutrition activities and on receiving aid for health, both public and private, (OECD, 2023).

2.2 Empirical Review

Nwakwanogo (2025) focused on the effect of government spending on economic development in Nigeria between the years 2000-2024 using annual time series data. The study used an ex-post facto research design, and the Ordinary Least Square (OLS) multiple regression techniques were used for the study. The results showed that there is a significant impact of government spending on education and health on economic development. The study thus recommended the government to increase the percentage of expenditure in the fields of health and education to 15 % and 25 % respectively. However, the research did not measure the impact of social investment but rather examined the development indicators mainly in an economic manner.

The implication of government health expenditure on human capital development in Nigeria was investigated by Nwokocha, et al. (2025), using annual time series data for the period 1999 to 2023. The Vector Error Correction Model (VECM) technique of analysis was employed for the study. The study revealed that government health spending showed a positive and statistically significant impact on human capital development, while inflation and physician per capita had negative and insignificant impact. The study therefore recommended the need for the government to increase health sector's funding to aid building of state-of-the art-health facilities to help in developing human capital in Nigeria. The study did not take into account the financing of education.

Odetola et al. (2025) used a disaggregated approach in measuring the level of Government Spending and economic development for the period 1990-2023. The technique used for the analysis is the Autoregressive Distributed Lag model. They discovered that the government spending on education was positively and significantly affecting GDP per capita and the government spending on health was positively but not significantly affecting GDP per capita. The study suggested investment in education and health, and the efficient use of public resources, for maintaining economic development. The present study was mainly focused on the indicators of economic development which includes Gross Domestic Product (GDP).

Opara et al. (2023) studied education expenditure and human capital development in Nigeria with the aid of annual time series data from the period of 1981 to 2021. The result revealed that government spending on education has a positive and significant relationship with human capital development in Nigeria, suggesting that increased investments will result in better human capital outcomes in Nigeria. The study therefore suggested that the Nigerian government should do more to provide funding to the education sector and make sure that the funds are utilized effectively. However, the study only included explanatory variables that are related to the educational expenditure, and did not include health financing.

Sulaiman and Ahmadu (2023) analyzed the relationship between human capital development and

economic growth in Nigeria using time series data from 1982 to 2022. It employed Ordinary Least Square regression (OLS) technique of analysis, and came out with the findings that human capital development has a positive and significant relation with economic growth. The study thus recommended that more attention should be paid to the education and health sector by the government while policy coordination should be maintained to increase human capital development to improve the Nigeria economy.

3. METHODOLOGY

3.1 Research Design and Data

This study adopted the ex post facto research design. The design is suitable as it was based on the historical macroeconomic data which had already occurred and which the researcher could not influence. The use of the ex post facto design enabled the investigation of the trends in the relationship of government spending and social investments in financing education and health care in Nigeria over time. Secondary data collected from reliable national and international sources of the Central Bank of Nigeria (CBN) annual statistical bulletin, and the World Development Indicators (WDI) from the year 2000 to 2025 were used. The sources have been chosen for being credible, reliable, consistent and accepted in empirical economic research. Social Investment (SI) was the dependent variable which was represented by the Human Development Index (HDI), and the independent variables were government expenditure on education (GEED), and government expenditure on health (GEHE), while the Gross Domestic Product per capita (GDPPC) was included as a control variable. These variables have been chosen based on the Human Capital theory which focuses on the significance of investments in education and health care for social welfare and human development, and the social investment theory which puts into focus the importance of investments in social welfare and human development.

3.2 Model Specification

To examine the relationship between government expenditure and social investments in Nigeria, the following functional model was specified:

$$SI = f(GEED, GEHE, GDPPC) \text{ -----}(1)$$

The econometric form of the model is expressed as:

$$SI_t = \beta_0 + \beta_1 GEED_t + \beta_2 GEHE_t + \beta_3 GDPPC_t + \mu_t \text{ -----}(2)$$

Where:

SI	=	Social Investment (Proxy by Human Development Index)
GEXE	=	Government Expenditure on Education
GEXH	=	Government Expenditure on Health
GDPPC	=	GDP Per Capita
B	=	Constant or Intercept
$\beta_1 - \beta_3$	=	Parameters to be Estimated
T	=	Time Period

3.3 Procedure for Data Analysis

To confirm the reliability of the study, the following steps were carried out in this order: yearly time series data spanning from 2000 to 2025 were obtained from the CBN annual statistical bulletin and the WDI for all the variables. The descriptive statistics analysis was carried out to have a glimpse of the raw data set.

Unit root test was conducted using the Augmented Dickey-Fuller test to ascertain the stationarity levels of the variables. Afterwards, the Autoregressive Distributed Lag model (ARDL) technique of data analysis was used to determine the existence of a long-run equilibrium relationship among the variables. The ARDL method was chosen because it can account for variables integrated at I(0) and I(1). Confirming the existence of a long-run relationship, the Error Correction Model (ECM) was assessed to examine the short-term dynamics and how equilibrium is restored from short-term imbalances to long-term equilibrium. After these methods, the post-estimation tests such as autocorrelation tests, heteroskedasticity tests, normality tests, and stability tests were conducted, to ensure the reliability and accuracy of the model. The data were analyzed using the EViews version 14 student lite version. EViews was chosen because it provides powerful tools for analyzing time series economic data.

The ARDL -ECM model is specified thus:

$$\Delta lSI_t = \varphi_0 + \sum_{i=1}^p \varphi_{1i} \Delta lGEED_{t-1} + \sum_{i=1}^{q1} \varphi_{2i} \Delta lGEHE_{t-1} + \sum_{i=1}^{q2} \varphi_{3i} \Delta lGDPPC_{t-1} + \delta ECT_{t-1} + \varepsilon_t$$

Where:

Δ = Difference operator

l = Logarithm

t = Time

φ_0 = Intercept

φ_1, φ_{2i} and φ_3 = Short run parameters to be estimated

Σ = Large Operator

p = Lag value of dependent variable

$q1, q2$ = Lag values of the independent variable

δ = Speed of adjustment parameter expected to be with a negative sign

ECT = Error correction term

ε = Error term

4. RESULTS AND DISCUSSION

4.1 Results

This section presents the empirical results of the study starting from the descriptive statistics, unit root tests, co-integration bound test, error correction models, and the post estimation tests.

Table 1: Summary of Descriptive Statistics

Variables	Mean	Std. Dev.	Skewness	Kurtosis	Jarque-Bera	Prob.	Obs.
SI	0.508346	0.042771	-0.281142	1.741387	2.058626	0.357252	26
GEED	504.3343	748.1020	3.059529	12.07322	129.7467	0.000000	26
GEHE	317.5015	505.8454	3.362876	14.37054	189.0686	0.000000	26

GDPPC	633039.6	416276.8	0.327760	1.893328	1.792298	0.408138	26
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Sources: Author's Computation from Eview-14 (2026)

As observed from Table 1, the mean, standard deviation, skewness, kurtosis, Jarque-Bera (and its probability) of the variables were given. It was found that GDPPC has the highest average of 633039.6, while SI has the lowest average of 0.508346. The standard deviation which showed the deviation from the mean indicated that GDPPC has the highest deviation of 416276.8 from the mean. This implies that GDPPC is more volatile relative to GEED and GEHE. The skewness which measures the degree of asymmetry of the series revealed that all the variables except SI have positive skewness. This implies that GEED, GEHE and GDPPC are all skewed to the right than the sample mean, while SI is skewed to the left of the sample mean. kurtosis measures the peakness or flatness of the distribution of the series. A normal distribution with a kurtosis value of 3 implies that the distribution is mesokurtic. The kurtosis distribution in Table 1 revealed that GEED and GEHE exhibited leptokurtic distribution. These mean they are peaked-curved relative to the normal distribution. However, the distribution of SI and GDPPC indicated that they are platykurtic distributions, implying they are flatted-curved relative to the normal distribution. The null hypothesis for the Jarque-Bera test is that the distribution is normal. Based on the probability values of the Jarque-Bera results as shown in Table 1, GEED and GEHE were not normally distributed while SI and GDPPC were normally distributed.

• Unit Root Test

Before carrying out any time series analysis, it is important to test for unit root in order to determine the stationarity or non-stationarity of the given data in a model. This is because in most cases regression models that are estimated with non-stationary time series data produce spurious (meaningless) regression results. The results of the unit root tests are summarized in Table 2.

Table 2: Summary of Augmented Dicker-Fuller (ADF) Unit Root Test Results

Variables	ADF Statistics	Critical Value	Prob.	Order of Integration
LSI	-3.923301	-2.986225	0.0063	I (0)
LGEED	-5.383352	-2.991878	0.0002	I (1)
LGEHE	-4.259567	-2.991878	0.0030	I (1)
LGDPPC	-4.440108	-3.004861	0.0022	I (0)

Sources: Author's Computation from Eview-14 (2026)

Table 2 was the summary of the Augmented Dicker-Fuller unit root test results. The result showed that the log of social investment (LSI) and the log of GDP per capita (LGDPPC) were stationary at levels, while the log of government expenditure on education (LGEED) and the log of government expenditure on health (LGEHE) were stationary at first difference.

• Cointegration Analysis

Table 3: Summary of Bound Test Results

F-Bounds Test	Null Hypothesis	No Level Relationship		
Test Statistics	Value	Significance	I(0)	I(1)
F - Statistics	11.56447	10%	2.72	3.77

K	3	5%	3.23	4.35
		1%	4.29	5.61

Sources: Author's Computation from Eview-14 (2026)

Table 3 indicated that the value of the F-statistic was 11.56447 which is greater than the upper bound (I(1)) critical value of 4.35 at 5% significance level. Therefore, the null hypothesis that there is no long-run equilibrium relationship is rejected and the alternative hypothesis that there is long-run equilibrium relationship is accepted. Then it is concluded that the variables set is co-integrated. Therefore, there is a long run equilibrium relationship among GEED, GEHE and GDPPC.

Table 4: ARDL-ECM Regression Results

Dependent Variable: D(LSI)

Variable	Coefficient	Std. Error	T – Statistics	Prob.
C	-0.457485	0.063102	-7.249915	0.0000
D(LGEHE)	0.009144	0.002051	4.458474	0.0004
D(LGEHE(-1))	-0.006807	0.001716	-3.966724	0.0011
D(LDGPPC)	0.009450	0.005650	1.672638	0.1138
CointEq(-1)*	-0.309239	0.041826	-7.393493	0.0000
Long Run				
LGEEED	-0.033854	0.015003	-2.256403	0.0375
LGEHE	0.066566	0.019453	3.421911	0.0032
LDGPPC	0.050619	0.012587	4.021471	0.0009
R-squared	0.784890		Durbin-Watson	2.028984
F-statistic	17.33176			
Prob(F-statistic)	0.000004			

Sources: Author's Computation from Eview-14 (2026)

The coefficient of error correction term (ECT) in Table 4 is -0.309239. This value indicates that it will take an average speed of 30.9% for the system to adjust from short run to long run should there be any disequilibrium. The coefficient of determination (R-square) value of 0.784890 indicates that government expenditures on education and health collectively accounted for 78.5% of the total variation or changes in social investment in Nigeria during the period under review, while the remaining 22.5% is accounted for by the error term. Furthermore, the value of the F-statistics (17.33176), with its corresponding probability value of 0.000004 indicates that the parameters of the estimated model are statistically significant at 5% level.

4.2 Discussion of Findings

The estimated value of the coefficient of the variable "government expenditures" is -0.033854; the p-value is 0.0375, which is less than 5 percent, so the government expenditures variable is statistically significant at the 5 percent level. The negative coefficients indicate that during the period of study, increase in government spending on education was negatively related to social investment in Nigeria. Specifically, keeping government expenditure on health constant, an additional unit of spending by government on

education leads to a reduction by about 0.034 of the social investment indicators in this study (HDI). This finding by no means implies that spending on education is detrimental to social investment. On the contrary, it points to the possibility that the public expenditure for education has not been used to the best effect for social returns. This study finding is similar to Okwu et. al, (2022) which concluded that human capital development has a negative relationship with government spending on education in Nigeria, but their result was not statistically significant. Further, it supports Onabote et al. (2023) who showed that there was no significant increase in human development with an increase in government expenditure at the sectoral level, specifically education expenditure. The results indicate that increased investment in education does not necessarily lead to better social investment outcomes. Some of the challenges that may constrain the impact of the education spending in Nigeria are weak budget implementation, corruption, inefficient use of resources, inadequate educational infrastructure and poor monitoring and evaluation.

In contrast, the coefficient value of 0.066566 for government spending on healthcare is positive, while the p-value of 0.0032 is below the significant 5% level. This means that government spending on healthcare has a positive and statistically significant effect on social investment in Nigeria. Specifically, a unit increase in government expenditure is associated with approximately 0.067 unit increases in social investment, holding other factors constant. The results agree with the earlier findings of Nwokocha et al. (2025) which found that government spending on health has a positive and significant effect on human capital development in Nigeria. It also agreed with the result of Awoyemi et al. (2023) that public health expenditure was significantly related to life expectancy and led to a reduction in the death rate. The positive relationship shows that extra spending on healthcare helps in expanding the government's social investment goals in Nigeria.

4.3 Policy Implication

From the result of this study, it is observed that government spending on health has positive and significant relationship with social investment while spending on education has negative and significant relationship with social investment which implies concern about efficiency, quality and utilization of educational resources. Hence, the policy makers should not only increase the investments on education but also make the utilization of the education's finances efficient by improving the accountability and systems of project implementation and reducing leakages and improving the service quality of education. Similarly, the role of health expenditure is positive, and it should be continued to invest in health, with emphasis on availability, affordability, and quality of health care services. Overall, the government should strive for more strategic social investments, aiming to use and allocate public resources in education and health that will equip people with higher capabilities, productivity and social welfare.

- **Post-Estimation Test Results**

Table 5: Summary of Post-Estimation Test Results

Type of Post-Estimation Test	F-Statistics (Prob)
Serial Correlation LM Test: Breusch-Godfrey	0.5616
Heteroskedasticity Test: Breusch-Pagan-Godfrey	0.1145
Normality Test: Jarque-Bera	0.939538

Sources: Author's Computation from Eview-14 (2026)

- **Post-Estimation Test Results**

For the serial correlation test, the null hypothesis is that there is no serial correlation in the residual. As

shown in Table 5, the probability value of 0.5616 is more than 5 percent (0.05) implying that the null hypothesis will not be rejected. This means that there is no serial correlation in the residual. The null hypothesis of the heteroskedasticity is that there is no heteroskedasticity in the residuals. The probability value is 0.1145 which is above 5 Percent (0.05) showed that we fail to reject the null hypothesis, which means the residuals are homoskedasticity. Also, the null hypothesis of the normality test is that the residuals are normally distributed. The probability value for the Jarque-Bera normality test is 0.939538 which is higher than the 5 percent significance level (0.05), therefore the null hypothesis cannot be rejected. This means that the residuals have a normal distribution.

Stability Test

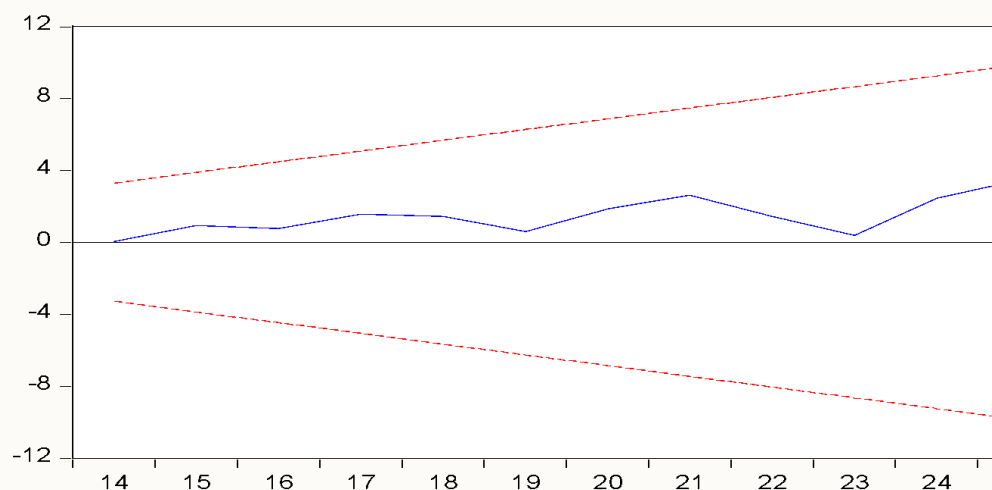


Figure 1: Cumulative Sum (CUSUM) Test

The CUSUM test result in Figure 1 indicates that the estimated coefficients are stable during the period under review (2000 – 2025), because the cumulative sum of the recursive residuals remains within the 5 percent critical bounds. This implies that there is no structural break in the model during the study period. Hence, the model is judged stable. Consequently, it can be concluded that the estimated coefficients of the model are robust and reliable.

5. CONCLUSION AND RECOMMENDATION

5.1 Conclusion

This study examined the role of Nigeria's government's expenditure in education and health on social investment in Nigeria. The results indicated that government expenditure on education was negative and statistically significant to social investment, and government expenditure on health was positive and statistically significant to social investment. The findings of the study suggest that social investment has improved with public health spending, but the findings on the education sector suggest that there is a lack of expected outcome from public education spending, which is an indication of inefficiency in allocating public investment in education and in the utilization of such spending in education. Therefore, sustainable social investment for Nigeria will need to involve a considerable increase in state expenditure, as well as effective utilization of public funds provided for education and health and translation into human capital and social welfare outcomes.

5.2 Recommendations

The following recommendations are made:

1. There is the need for general overhaul of public expenditure on education by the federal government to make it more efficient and effective. This should include better financial monitoring and evaluation systems, timely disbursement and effective utilization of financial resources, reducing financial losses due to leakages and corruption, and targeting investments in infrastructure, teacher training, curriculum development and learning resources. The government must also implement a performance-based budgeting to realize that its investment in education will lead to better education quality, better skills and better human capital development.
2. The federal government should also keep committing and gradually increasing its health resource allocation to the health sector, to attain positive and significant impact on social investment, in accordance with the Abuja Declaration health target and other international best practices. Priority should be accorded to further strengthening of primary health-care services, making health-care services more accessible, upgrading medical facilities, investing in health-care personnel, and essential medicines and preventive health-care programmes. The investments will contribute to improved health in Nigeria, enhanced labour productivity, improved human capital, and sustainable social investment and inclusive economic development.

References

- Awoyemi, T. T., Obayelu, O. A., & Opaluwa, H. I. (2023). Government health expenditure and health outcomes in Nigeria. *West African Journal of Applied Ecology*, 31(1), 45-62.
- Ayeh, A. O., Ayeh, R. I., & Okeh, P. E. (2025). Public investment in education and health: Implications for human capital development in Nigeria (1981–2023). *Innovative Journal of Art and Social Sciences*, 7(7), 140-165
- Ayeni, A. O. & Omobude, O. F. (2018). Educational expenditure and economic growth nexus in Nigeria (1987-2016). *Journal for the Advancement of Developing Economies*. 7(1), 59-77. <http://digitalcommons.unl.edu/jade/35>
- Bognet, A. C., Yashim, D. A., Momoh, A. O., Inuwa, B. A., & Babangida, S. (2023). Impact of government expenditure on human capital development in Nigeria. *Benue Journal of Social Science*, 9(1), 99-113
- Central Bank of Nigeria Annual Statistical Bulletin, 2024.
- Hemerijck, A. (2017). *The Uses of Social Investment*. Oxford University Press.
- Nwakwanogo, S. C. (2025). Analyzing the impact of government expenditure on economic development in Nigeria. *International Journal of Development and Economic Sustainability*, 13(3), 26–37. <https://doi.org/10.37745/ijdes.13/vol13n32637>
- Nwokocha, A. F., Machi, I. O., Oladipo, A., & Aliyu, Y. A. (2025). Implication of government health expenditure for human capital development in Nigeria. *ABUAD Journal of Social and Management Sciences*, 6(1), 58–75. <https://doi.org/10.53982/ajsms.2025.0601>
- Odetola, B. F., Adekunle, O. D., & Akinrinola, O. (2025). Government expenditure and economic development in Nigeria: A disaggregated approach. *African Journal of Accounting and Financial Research*, 8(2), 84–97. <https://doi.org/10.52589/AJAFR-XIBNKBW>
- Okwu, A.T., Nissi, M., Joy, O. A & Adejola D.K (2022). Government education expenditure and human

capital development in Nigeria: An empirical investigation. *Journal of Economics and Allied Research* 7(2),

Onabote, A. A., Ohwofasa, B. O., & Ogunjumo, R. A. (2023). Government sectoral spending and human development in Nigeria: Is there a link? *Heliyon*, 9(7), e17545. <https://doi.org/10.1016/j.heliyon.2023.e17545>

Oparah, P. C., Iloanya, K. O., & Ugochukwu, M. N. (2023). Education expenditure and human capital development in Nigeria. *American Journal of Economics and Business Management*, 6(9), 37–47. <https://doi.org/10.31150/ajebm.v6i9.242>

Organization for Economic Cooperation and Development. (2023). *Education at a Glance 2023: OECD Indicators*. Paris: OECD Publishing.

Organization for Economic Cooperation and Development. (2023). *Health at a Glance 2023: OECD Indicators*. Paris: OECD Publishing.

Sulaiman, A. A., & Ahmadu, S. (2023). Human capital development and economic growth in Nigeria (1982–2022). *ASRIC Journal of Social Sciences*, 4(2)

United Nations Educational, Scientific and Cultural Organization Institute for Statistics (UIS). (2023). *Education Expenditure*. Montreal, Canada: UIS.

United Nations Educational, Scientific and Cultural Organization Institute for Statistics (UIS). (2023). *Education Expenditure*. Montreal, Canada: UIS.

World Bank. (2023). *World Development Indicators*. Washington, DC: World Bank.

World Bank. (2024). *World Development Indicators: Government expenditure on education, total (% of GDP)*. Washington, DC: World Bank.

World Health Organization. (2020). *Global Health Expenditure Database*. Geneva, Switzerland: World Health Organization.

World Health Organization. (2023). *Global Health Expenditure Database*. Geneva, Switzerland: World Health Organization.



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