

## IMPACT OF GOVERNMENT EXPENDITURE ON HUMAN CAPITAL DEVELOPMENT IN NIGERIA

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### ABSTRACT

*This study assessed the impact of government expenditure on Human capital development in Nigeria using time series data of 1986-2020. Structural Vector Auto-regression (SVAR) model and the pair-wise causality test were adopted. The study found that government expenditure in health and education had an insignificant impact human capital development. The result also showed that public debt has an insignificant impact on human capital development; the Pair-wise granger causality test observed a unidirectional relationship and that this relationship flows from economic growth to human capital development. The study, therefore, recommends that the government needs to aim at meeting both regional and global expenditure benchmarks for human capital development; funds meant for the development of these sectors which have the potential of growing the economy aside the petroleum subsector should be effectively monitored. The study also recommends that Nigeria's borrowing decision analysis should be expanded beyond the debt to GDP ratio to also include revenue to GDP ratio and that borrowings should be for productive projects and not for consumption purposes as has been the practice.*

**Keywords: Impact, Government Expenditure, SVAR, Human Capital Development, Nigeria.**

### INTRODUCTION

The provision of basic necessities such as education and health can only be possible through government effective and sustained expenditure. In the Nigerian situation, government expenditure in general term has been on the increase but the resultant effect is less felt by the citizenry. High public debt servicing which is a component of government expenditure takes over 30% of annual budgetary allocation and over 90% of annual revenue generated. Along with this is the effect of financial corruption which has been described as a cankerworm that is well seated in the conscious and sub-conscious mind of Nigerians. On the other hand, the foremost and basic function of any government is the provision of basic public goods for its

citizens for their well-being. This well-being of the citizens reflects in a number of visible and measurable parameters to gauge the effort of the country which is evidenced in its economic growth.

The Federal Government of Nigeria at different times through its annual budget and other funding channels displayed its willingness and readiness to fund its sectors with infrastructural and quality human capital investment in mind which should translate to economic growth and eventually, development in the long run. This is because economic growth is fundamental for sustainable development as it relies on government expenditure to invest in key infrastructural systems like sanitation, health, education, transportation, etc. Analysis of the trend of government expenditure in Nigeria showed that the share of recurrent expenditure to the total expenditure stood at 68%, 60% and 70% in 2007, 2008 and 2009 respectively with a meagre portion committed to capital expenditure (World Bank, 2016). Consequent upon this is the high rate of fluctuations and volatility in economic growth rate measured by real gross domestic product. The Real Gross Domestic Product (RGDP) in 1975, 1986, 1999 and 2016 are 7.6%, 11.1%, 2.6% and 1.6% respectively (World Bank, 2016).

Nigeria government spending over the years has been on the rise but the problem is the inefficient channelling of the fund to key priority areas of the economy, or the case of embezzlement. This is further corroborated by the Education For All (EFA) global monitoring report by the UNESCO (2015), which stated that many governments have increased spending but few have prioritised education in national budget. For instance, government total capital expenditure on economic services, social, community services, transfers, among others increased from N110,163.10 million, N15,034 million and N28340 million in 1980, 1989 and 1991 respectively. It further increased to N883874.5 million and N918548.9 million in 2010 and 2011 respectively. In the same vein, recurrent expenditure increased from N25994 million and N38243 million respectively in the same period down to N3310343.38 million and N3054333 million respectively in 2010 and 2011 (CBN, 2012). It is on this note this paper sought to assess the impact of government expenditure on human capital development in Nigeria.

### **Objectives of the Study**

The main objective of this study is to evaluate the impact of government expenditure on human capital development in Nigeria. The specific objectives of the study sought to:

- i. Evaluate the impact of government education expenditure on human capital development in Nigeria
- ii. Investigate the impact of government health expenditure on human capital development in Nigeria.
- iii. Examine the impact of public debt on human capital development in Nigeria.

### **Research Questions**

This study was set to answer the following research questions:

- i. What is the impact of government education expenditure on human capital development in Nigeria?
- ii. What is the impact of government health expenditure on human capital development in Nigeria?
- iii. What is the impact of public debt on human capital development in Nigeria?

## **LITERATURE REVIEW**

### **Conceptual Clarifications**

#### **Government Expenditure**

Government expenditure is the money spent by the government out of its revenue to meet various needs of the economy (Adigwe, Anyanwu & Udeh, 2016). The concept of government expenditure emanates from the activities of government which includes paying for and providing goods and services, investment in material and human capital as well as transfers. According to Ukwueze (2018) Public expenditures can be disaggregated or classified into subheadings, such as recurrent expenditures and capital expenditures. The recurrent expenditures are expenditures or purchases of stationeries, wages and salaries of workers, fuel, electricity bills and other bills, etc. Capital expenditures are constructions undertaken by the government on roads, bridges, health centres, schools, military installations and hardware, etc. In addition, Muguro, (2020) further clarified that Government expenditure refers to all expenses made by a nation's government on collective needs of a country.

#### **Human Capital Development**

Human capital development is been defined by various scholars in their different perspectives. According to Udeorah and Obayori (2020) described human capital as investment in the necessary resources in the potentials of an individual or improving, upgrading and enhancing the economic value of an individual or population for higher productivity. In this regard, human capital development is the process of acquiring and increasing the number of people who have the skills, good health, education and experience that can bring about economic growth and possibly development. In addition according to the authors, there are five means that human capital can be developed and he listed them as first, health care and facilities, on the job training, formally organized education at the elementary, secondary and higher levels, and study programmes for adults. The fifth, being the migration of individuals and families to adjust to changing job opportunities. In other words, human capital is developed through investment in it so as to improve its general productive capacity. According to Okojie (2020), human capital is referred to as the capabilities and skills of human resources of a country, which comprise of level of education, expertise and abilities of the labour force, and human capital development which is the process of obtaining and increasing the number of persons who possess the competence, knowledge and know-how that are required for economic growth and development of a nation.

#### **Government Expenditure and Human Capital Development in Nigeria**

Human capital development is critical to the socio-economic development of any nation and as such government expenditure in education and health will lead to a more productive country with economic growth as the resultant effect of such investment. Nigeria has made deliberate effort right from independence to improve its human capital through government expenditure via its annual budgetary allocation to education and health. The emphasis government placed on education and health in Nigeria has led to relative increase in public expenditure allocation to both health and education sector over the years with the aim that this would in turn generate returns that will further enhance the growth and development of the country (Olajide, Akinlabi, & Tijani 2020).

However, Umoru and Odjegba (2018) observed that since the oil crisis in the 80s, the proportion of capital budget allocated to education has been consistently lower than the proportion of recurrent expenditure. The United Nations Educational, Scientific and Cultural Organisation (UNESCO) classification of 1967 as adapted by Hallak (2019), conceptualised educational expenditure by nature as comprising of recurrent, capital and debt service. While the amount of fund allocated to these sectors have been on a consistent rise even though it is a far cry from the global benchmark, the Nigerian nation is still bedevilled with low rate of life expectancy, high number of out of school children, dilapidated and non-functional public health and educational infrastructures, high maternal and infant mortality rates, insufficient health facilities, inadequate supply of medical personnel, inadequate and untrained teachers, poor quality graduates that cannot compete favourably with their peers within the west Africa sub-region. Ebiringa and Charles (2018) further asserted that government expenditures on health for instance raise the productivity of labour and increase the growth of national output. In addition, the authors observed that the contribution of education towards growth in real output has proven to be higher than the contribution of physical capital.

## **Theoretical Framework**

### **Becker's Theory of Human Capital**

According to Becker (1975), schooling, a computer training course, expenditures on medical care, and lectures on the virtues of punctuality and honesty are also capital even though intangible. That is because they raise earnings, improve health, or add to a person's good habits over much of his lifetime. Therefore, Becker (1975) insisted that economists regard expenditures on education, training, medical care, and so on as investments in human capital because people cannot be separated from their knowledge, skills, health, or values in the way they can be separated from their financial and physical assets. The theorist further stated that Education, training, and health are the most important investments in human capital. Becker also highlighted the prominent role that scientific and technical knowledge play in economic growth. The author admitted that the continuing growth in per capita incomes of many countries during the nineteenth and twentieth centuries is partly due to the expansion of scientific and technical knowledge that raised the productivity of labour and other inputs in production. And the increasing reliance of industry on sophisticated knowledge greatly enhances the value of education, technical schooling, on-the-job training, and other human capital. However, Becker (1975) observed that new technological advances clearly are of little value to countries that have very few skilled workers who do not know how to use them. Economic growth closely depends on the synergies between new knowledge and human capital, which is why large increases in education and training have accompanied major advances in technological knowledge in all countries that have achieved significant economic growth. The author cited the examples of Japan, Taiwan and other Asian countries that have against all natural odds made giant strides in economic advancement through human capital development.

### **Empirical Studies**

In an attempt to measure the impacts of government expenditure on human capital development Okojie (2020) assessed government expenditure on nomadic education in Nigeria and the implication for achieving the Millennium Development Goals. The study adopted descriptive statistics to analyse secondary data generated between 1990 and 2018.

The result exposed that increase in government expenditure on nomadic education led to significant increase in the number of nomadic schools and teachers employed. More so, human capital is a subject of education and health.

Minin, Akutson, Auta and Messiah (2018) investigated the effect of government expenditure on human capital development in Kaduna state from 1990 – 2015. The study employed secondary data obtained from Kaduna state Ministry of Budget and Planning. The Auto Regressive Distributed Lag (ARDL) was adopted for the study. Findings of the work suggest that in the short-run, increase in government spending on education does not stimulate an increase in human capital development.

Similarly, Kairo, Mang, Okeke and Aondo (2017) examined the relationship between human capital development and government expenditure. The study employed the use of data for the period 1990-2014. The ARDL and impulse response function were adopted for the estimation. The Bound Test was used to determine that a long run relationship exists between HDI and GOVEXP. The results showed that in the long and short run, government spending remained positive but insignificant to human capital development in Nigeria.

Furthermore, Jaiyeoba (2015) investigated the relationship between investment in education and health in Nigeria, using time series data from 1982 to 2011. The paper adopted trend analysis, the Johansen co-integration and ordinary least square technique. Empirical findings indicated that there is a long-run relationship between government expenditure on education, health and economic growth. Adigwe, et al (2016) examined human capital development and economic growth in Nigeria using time series data which covered a period of 1981-2010. Autoregressive distributed lag (ARDL) was employed. The result showed that human capital development indicators had positive impact on economic growth in Nigeria within the reviewed periods.

Similarly, Ebiringa and Charles (2018) examined the impact of human capital development on economic growth in Nigeria using time series data which spanned from 1980 to 2016. The study employed ARDL and Co-integration analysis to estimate the relationship among the variables used in the study. The study established long-run co-integration among the variables. The findings from the study revealed that there is positive long-run relationship among secondary school enrolment, public expenditure on education, life expectancy rate, gross capital formation and economic growth but it is statistically insignificant. The results also showed that there is negative long-run relationship among primary, tertiary school enrolment, public expenditure on health and economic growth.

Finally, Udeorah and Obayori (2020) examined the impact of human capital development on the growth of the Nigerian economy using co-integration techniques to investigate the effect of human capital development and economic growth in Nigeria, the study revealed significant long-run relationship between human capital development and economic growth in Nigeria. This was confirmed by the Johansen co-integration. The study showed that government expenditure on education has positive relationship with GDP while government expenditure on health was found to have negative effect on GDP. The study is a single model equation and did not test the impact of government expenditure on economic growth.

## METHODOLOGY

### Research Design

This study employed Ex-post facto research design. According to Akuezuilo (1990) Ex-post facto design is a systematic and empirical inquiry which makes it impossible for the researcher to have control over the behaviour of the independent variables because their manifestations have already happened.

### Sources and Types of Data

The study used time series data obtained from the Central bank of Nigeria Statistical bulletins, 2020 and the World Development indicators 2020. The data used in this analysis are from secondary sources which are quantitative in nature and covers the period from 1986-2020.

### Method of Analysis

This study employed the use of the Structural Vector Autoregressive (SVAR) Model to examine the effect of government expenditure on human capital development. The study used the Augmented Dickey Fuller test to ensure that all variables are stationary; this is to avoid the spurious regression problem associated with unit roots. The Johansen co-integration test was conducted and it showed that there is no long run relationship among the variables. Then, the standard VAR was estimated with all the variables as endogenous variables in their stationary form with a constant. The Akaike Information Criterion (AIC) was adopted.

### Model Specification

For the purpose of analysing the impact of government expenditure on human capital development in Nigeria, the structural vector autoregressive technique was used to determine the influence of public expenditure on human capital development. This paper adopted the model of Lawanson (2009) which was modified to capture the essence of the study. Thus, the functional model is specified as:

$$HDI = f(GEE, GHE, PD)$$

The model is transformed into a VAR model using the mathematical representation Thus

$$y_t = A_1 y_{t-1} + A_2 y_{t-2} + A_3 y_{t-3} + \dots + Bx_t + \epsilon_t$$

In Econometric form (VAR) it is specified as:

$$LNHDI = \alpha + \sum_{i=1}^k \beta_1 LNHDI_{t-i} + \sum_{j=1}^k \beta_2 LNGEE_{t-j} + \sum_{m=1}^k \beta_3 LNGHE_{t-m} + \sum_{n=1}^k \beta_4 LNPDT_{t-n} + \mu_1 t \dots \dots \dots 1$$

$$LNGEE = \alpha + \sum_{i=1}^k \beta_1 LNHDI_{t-i} + \sum_{j=1}^k \beta_2 LNGEE_{t-j} + \sum_{m=1}^k \beta_3 LNGHE_{t-m} + \sum_{n=1}^k \beta_4 LNPDT_{t-n} + \mu_2 t \dots \dots \dots 2$$

$$LNGHE = \sigma + \sum_{i=1}^k \beta_1 LNHDI_{t-i} + \sum_{j=1}^k \beta_2 LNGEE_{t-j} + \sum_{m=1}^k \beta_3 LNGHE_{t-m} + \sum_{n=1}^k \beta_4 LNPDT_{t-n} + \mu_3 t \dots \dots \dots 3$$

$$LNPDT = \delta + \sum_{i=1}^k \beta_1 LNHDI_{t-i} + \sum_{j=1}^k \beta_2 LNGEE_{t-j} + \sum_{m=1}^k \beta_3 LNGHE_{t-m} + \sum_{n=1}^k \beta_4 LNPDT_{t-n} + \mu_4 t \dots \dots \dots 4$$

Where:

$\mu$ = Innovations

$\alpha, \alpha, \sigma, \mathbf{b}$  and  $\mathbf{\delta}$  are the intercepts of the VAR equations

### Measurement of Variables

In this study, Government expenditure is the dependent variable which is composed of government education expenditure, government health expenditure and public debt. This is measured in Nigerian Naira (NGN). Human development index is the independent variable that is proxied for human capital development. The unit of measurement of this variable is in Nigerian Naira (NGN).

## RESULTS

**Table 1:** Descriptive statistics

Variables	LNGEE	LNGHE	LNHDI	LNPDP	LNREGDP
Mean	3.621601	2.824855	-0.698141	17.75625	17.32728
Median	4.337683	3.532226	-0.701557	17.89435	17.27213
Maximum	6.538241	6.538241	-0.627359	19.12759	18.11791
Minimum	-1.469676	-3.218876	-0.798508	15.68439	16.53930
Std. Dev.	2.363480	2.653183	0.040678	0.860146	0.548573
Skewness	-0.755387	-0.630531	-0.109585	-0.885423	0.124440
Kurtosis	2.497482	2.258295	3.155122	2.914770	1.457339
Jarque-Bera	3.696817	3.121422	0.105143	4.583778	3.560875
Probability	0.157488	0.209987	0.948786	0.101075	0.168564

**Source:** Researchers' computations using E-views 12.

This study undertook descriptive statistics to give description of the basic features of the variables being used in this research. This is to form the basis of the quantitative analysis in this study. Table 1 below provides the summary of the statistics namely the sample means, maximums, minimums, medians, standard deviations, skewness, kurtosis and the Jarque-Bera tests with their p-values. The table reveals that Public debt (PD) has the highest mean, median and maximum value while HDI is observed to have the least minimum value. The standard deviation which shows the level of volatility of the variable indicates that GHE is the most volatile considering its value of 2.653183 while HDI with 0.040678 is the least volatile. The skewness is a measure of the asymmetry of the probability distribution of a real-valued random variable about its mean. In this set of variables, GHE, GEE, HDI and PD are negatively skewed since their values are less than 1 while RGDP is the only variable that has a positive skewness. The measurement of the sharpness of the peak of a normal distribution is known as kurtosis. A value of approximately 3 indicates that it is a normal distribution and this is called mesokurtic. If the value is greater than 3 it is known as a leptokurtic distribution but if it is less than 3 it is referred to as platykurtic. From table 1, all the variables with the exception of HDI which showed evidence mesokurtic are platykurtic because their values are less than 3. Using the Jarque-Bera criterion, the variables can be said to be normally distributed since the probability of all the variables are greater than zero.

### Unit Root Test

The unit Root Test was carried out using the Augmented Dickey–Fuller test after the data have been transformed into their log form. The test was performed first at levels I (0) and then in the

first difference I (1) to ascertain their stationarity as well as their level of integration. The summary is as shown below:

**Table 2: Augmented Dickey Fuller Test**

Variables	ADF stat (Level)	5%Critical Value	ADFStat.(1 <sup>st</sup> dif)	5%Critical Valu	Remark
L LNHD	-0.910402	-2.-2.954021	-5.852386	-2.954021	II I(1)
LNGEE	--2.641792	-2.967767	-3.865007	-2.986225	I( I(1)
LNGHE	-1.136228	-2.971853	-5.498038	-2.971853	I I((1)
L LNPDP	-2.607517	-2.951125	-7.946065	-2.954021	I I((1)
LNRGDP	--0.805303	-2.954021	-3.204549	-2.954021	I I(1)

**Source: Researchers' computations using E-views 12.**

From the stationarity test above, LNHD, LNGEE, LNGHE, LNPDP and LNRGDP achieved stationarity using the 5% level of significance at the first difference. Hence, the model stationarity was established at I(1).

### Co-integration Test

**Table 3: Johansen Co-integration Test**

Hypothesised No. of CE(S)	Trace Stat	Eigenvalue	Critical Value 5%	Max-Eigen stat.	Critical Value 5%
None	38.56640	0.421519	47.85613	17.51516	27.58434
At most 1	21.05124	0.339295	29.79707	13.26234	21.13162
At most 2	7.788893	0.196609	15.49471	7.005240	14.26460
At most 3	0.783653	0.024192	3.841466	0.783653	3.841466

**Source: Researchers' computations using E-views 12.**

**The decision rule:** If trace and max-Eigen statistic values are greater than the 0.05% critical value, co-integration is established or confirmed. However, from table 3 there is clear evidence that there is no co-integrating equation which implies that there is no long run relationship at 5% level of significance in this model.

### Lag length Selection

The study perform test for the number of lags using the Akaike Information Criterion (AC) , Schwarz Information Criterion(SC), and the likelihood ratio test for the appropriate lag length in the VAR. The correct lag length depends on the test performed. This study therefore adopts the Akaike information criterion. See Table 4.

**Table 4: Lag length selection**

Lag	LogL	LR	FPE	AIC	SC
0	-53.52905	NA	0.000384	3.486609	3.668004
1	16.81548	119.3725*	1.44e-05*	0.193001*	1.099975*
2	31.72584	21.68780	1.61e-05	0.259040	1.891594

**Source: Researchers' computations using E-views 12.**

### Vector Autoregressive (VAR) Estimates



Based on the acceptance of the null hypothesis of the co-integration test which indicates that there is no co-integration in the model the VAR test was performed and the output is as shown in table 5.

**Table 5: VAR Estimates**

Variables	LNGEE	LNGHE	LNHDI	LNPD
LNGEE(-1)	0.066810 (0.48362) [ 0.13815]	-0.229940 (0.46314) [-0.49648]	0.000409 (0.01550) [ 0.02637]	0.281304 (0.50466) [ 0.55742]
LNGEE(-2)	-0.883772 (0.44520) [-1.98511]	-0.816875 (0.42635) [-1.91598]	0.005433 (0.01427) [ 0.38069]	-0.027655 (0.46457) [-0.05953]
LNGHE(-1)	0.419433 (0.44183) [ 0.94931]	0.609558 (0.42312) [ 1.44063]	-0.002036 (0.01416) [-0.14374]	-0.273839 (0.46105) [-0.59395]
LNGHE(-2)	1.071423 (0.41435) [ 2.58578]	1.200183 (0.39680) [ 3.02462]	-0.002521 (0.01328) [-0.18982]	-0.039424 (0.43238) [-0.09118]
LNHDI(-1)	0.864303 (6.21471) [ 0.13907]	2.259913 (5.95153) [ 0.37972]	0.886699 (0.19923) [ 4.45058]	5.610329 (6.48506) [ 0.86512]
LNHDI(-2)	0.626334 (6.55763) [ 0.09551]	-1.006971 (6.27993) [-0.16035]	0.000127 (0.21023) [ 0.00060]	-1.064233 (6.84290) [-0.15552]
LNPD(-1)	0.019707 (0.19282) [ 0.10220]	0.056864 (0.18466) [ 0.30794]	0.002220 (0.00618) [ 0.35905]	0.448082 (0.20121) [ 2.22692]
LNPD(-2)	-0.101063 (0.18581) [-0.54391]	-0.104354 (0.17794) [-0.58646]	-0.007621 (0.00596) [-1.27945]	0.145788 (0.19389) [ 0.75191]
C	5.204417 (4.31490) [ 1.20615]	3.644088 (4.13217) [ 0.88188]	0.010858 (0.13833) [ 0.07850]	10.36214 (4.50260) [ 2.30137]

**Source: Researchers' computations using E-views 12.**

### Structural VAR estimates

The Researchers having performed the Vector Auto-regression Test had to perform structural VAR test to ascertain the dynamic behaviour of the economic time series data by focusing on independent shocks. This is because SVAR analysis investigates the dynamic interactions and instantaneous correlation between relevant variables that are to be examined. The ordinary least squares method is used to estimate the reduced form of the VAR. Tables 6 and Table 7 show the respective estimates for the contemporaneous impact matrix and the long-term impact matrix and it is on the basis of this that the Structural VAR representation of the model was obtained. Table 6 which is the top portion of the SVAR output shows the restrictions,

parameterization, and estimated coefficients, while table 7 which is the bottom portion shows the structural matrix estimates.

**Table 6:** Structural VAR estimates with restrictions

<b>Model <math>Ae = Bu</math> where <math>E[uu'] = I</math> <math>A = B =</math></b>				
1	0	0	0	
C(1)	1	0	0	
C(2)	C(4)	1	0	
C(3)	C(5)	C(6)	1	
C(7)	0	0	0	
0	C(8)	0	0	
0	0	C(9)	0	
0	0	0	C(10)	
	<b>Coefficient</b>	<b>Std. Error</b>	<b>z-Statistic</b>	<b>Prob</b>
C(1)	-4.055278	5.383970	-0.753213	0.4513
C(2)	0.508142	1.974139	0.257399	0.7969
C(3)	3.182766	5.647052	0.563615	0.5730
C(4)	-0.889189	0.063287	-14.05003	0.0000
C(5)	0.318032	0.477873	0.665515	0.5057
C(6)	-0.286983	0.497452	-0.576906	0.5640
C(7)	0.021701	0.002671	8.124037	0.0000
C(8)	0.671172	0.082616	8.124037	0.0000
C(0)	0.244010	0.030036	8.124037	0.0000
C(10)	0.697294	0.085831	8.124037	0.0000

**Source:** Researchers' computations using E-views 12.

**Table 7:** Structural VAR matrixEstimate

<b>Estimated A matrix</b>				
1.000000	0.000000	0.000000	0.000000	0.000000
-4.055278	1.000000	0.000000	0.000000	0.000000
0.508142	-0.889189	1.000000	0.000000	0.000000
3.182766	0.318032	-0.286983	1.000000	0.000000
<b>Estimated B matrix</b>				
0.021701	0.000000	0.000000	0.000000	0.000000
0.000000	0.671172	0.000000	0.000000	0.000000
0.000000	0.000000	0.244010	0.000000	0.000000
0.000000	0.000000	0.000000	0.697294	0.000000

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<b>Estimated S matrix</b>			
0.021701	0.000000	0.000000	0.000000
0.088002	0.671172	0.000000	0.000000
0.067224	0.596798	0.244010	0.000000
-0.077764	-0.042183	0.070027	0.697294
<b>Estimate F matrix</b>			
0.146701	0.053712	0.045819	-0.059431
1.346213	4.296096	4.444959	-0.500992
1.497004	4.707338	5.335726	-0.490207
1.136735	-0.450446	-0.654237	1.116892

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**Source: Researchers’ computations using E-views 12.**

## **DISCUSSION**

The analysis of the impact of government expenditure on human capital development in Nigeria which spans between 1986 and 2020 year period revealed the following findings: Government Education Expenditure (GEE) had no significant impact on Human Development Index (HDI) both in the short run and in the long run. Thus, this study fails to reject the Null hypothesis that government education expenditure has no significant impact on human capital development. This is consistent with the findings of Kairo, Mang, Okeke and Aondo (2017). The structure of government expenditure where over 70% are allocated to recurrent expenditure is a sufficient reason for such economic behaviours. Since the oil crisis of the 1980s the proportion of capital budget allocated to education and health have been consistently lower than the proportion of recurrent expenditure (Umoru&Odjegba, 2018). This justifies the poor performance of the Nigerian educational sector over the years with inadequate funding, high percentage of out-of-school children, declining quality of education, Poor and inadequate learning infrastructure, financial and academic corruption that is claiming the soul of meritocracy in the system, poorly motivated and poor quality manpower, erratic academic calendar championed by unending industrial conflicts between teachers and governments at both the state and federal level.

Government Health Expenditure (GHE) had no significant impact on human capital development in Nigeria. On the basis of this, this study fails to reject the Null hypothesis that government health expenditure has no significant impact on human capital development. Healthcare financing in Nigeria has been characterized by the declining budgetary provisions since 1980 which has resulted in the proportion of total budget to health being less than 8% on average (Muguro, 2020). This has further confirmed that over the years the Nigerian government has paid lip service to the development of the health sectors over the years. Against the expectation of this study, public debt impacted insignificantly on human capital development and economic growth in Nigeria; and the impact is negative. Thus, the study fails to reject the Null hypothesis that public debt has no significant impact on human capital development and economic growth in Nigeria. This is consistent with the finding of Yusuf and Saidatulakma (2021) However, Okon, Etim and Mfon (2017) reported a positive significant impact. It is evident that nearly all the federal government’s salaries, overhead,

and capital expenditure (CAPEX) in the year 2020 were funded with loans. The devastating effect of borrowing is that funding human capital development becomes difficult because huge debt servicing amidst weakening revenue generation and other competing national needs.

## **SUMMARY AND CONCLUSION**

From the hypotheses tested in chapter four it was discovered that government expenditure in education and health impacted insignificantly on human capital development. The study also revealed that public debt has insignificant impact on human capital. This paper employed the Structural Vector Autoregressive econometric analyses to test the model and the hypotheses. The findings showed that, government education expenditure and government health expenditure had insignificant impact on human capital development. The result obtained in determining the impact of public debt on human capital development recorded insignificant impact in both the short-run and long-run. The study further recommended that government needs to aim at meeting both regional and global expenditure benchmark in human capital development to include revenue generating capacity of Nigeria instead of debt to GDP ratio, only analysis in borrowing is emphasised as one of the recommendations.

## **RECOMMENDATIONS**

The study thus makes the following recommendations for policy action by stakeholders:

- i. Government expenditure in education and health should be increased significantly to at least meet up with regional and global expenditure benchmark as empirical evidence has shown that both variables have insignificant impact on human capital development in Nigeria.
- ii. Government should reduce the incidence of borrowing as well as extend borrowing analysis to revenue generating capacity as debt to GDP ratio is not all encompassing as well as targeted economic growth policies and schemes should be pursued through deliberate and sustainable human capital development programmes.
- iii. Nigerian economic management strategy should focus on developing the human capital sector because it has the potentials for the long awaited development of the economy. There is the need to urgently redirect both the short-run and long-run economic policy towards developing the education and health sector because of their capacity to grow the economy and sustain it into development.

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