

**HUMAN CAPITAL DEVELOPMENT AND ECONOMIC GROWTH IN NIGERIA****Ogunleye<sup>1</sup>, O. O., Owolabi<sup>2</sup>, O. A., Sanyaolu<sup>3</sup>, O.A., and Lawal<sup>4</sup>, O. O**

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**Abstract**

*This study employs the ordinary least square regression analysis to examine the impact of human capital development on economic growth of Nigeria, using annual time series data from 1981 to 2015. The empirical results show that human capital development has significant impact on economic growth, as proxy by the gross domestic product. In line with theory, the human capital development indicators namely secondary school enrolment, tertiary school enrolment, total government expenditure on health and total government expenditure on education exhibit positive and statistically significant impact on economic growth of Nigeria which implies that these indicators are indispensable in the achievement of growth in the Nigerian economy. However, life expectancy and primary school enrolment exhibit a negative and statistically insignificant impact on economic growth of Nigeria. The study concluded that the Nigerian government should ensure to allocate adequate resources for the development of human capital in order to enhance economic growth in Nigeria. The study also recommended that going forward the government and policy makers should increase its total expenditure on education, ensure sufficient budgetary allocation on health expenditure, and ensure a standard is set across all secondary and tertiary institutions in the country so that proper human capital required for any individual to become productive and economic growth is enhanced.*

**Keywords:** *Human Capital Development, Economic growth, Education, Health.*

## 1.0 Introduction

The most valuable assets in both developed and developing countries, according to Hadir and Lahrech (2015) are humans. To achieve development, it therefore becomes imperative for these assets to be managed properly and effectively used. One way this can be done is by ensuring adequate investment is made in human capital. Human Capital can be described as the collective skills, knowledge, and intangible assets of individuals that can be used to create economic value. Human capital according to Schultz (1993) can also be described as a tool for enhancing competitive advantage since it involves the process of training, knowledge acquisition (education), initiatives and others which are all geared towards skill acquisition.

Human Capital can be developed through the process of human empowerment since it is expected to facilitate active participation and from that perspective may be affirmed a major source of economic growth. Many developed countries according to International Bank for Reconstruction and Development and World Health Organization have employed their human capital to achieve significant progress in terms of level of productivity and technological advancement. In spite of the popularity of human capital usage among developed countries however, many developing countries have still not awoken to the fact that human capital can be used as a major drive to facilitate an improved economy. Many developing countries including those of Sub Saharan Africa and West African are yet to reach their maximum capacity in spending on the component of human capital in boosting their economic growth. The lack of government spending on human capital in these Sub Saharan countries have contributed to numerous challenges ranging from low quality of educational delivery which consequently result to poorly equipped graduates to poor infrastructures in healthcare (Ragan & Lipsey, 2005).

Developing countries generally are described by their low levels of literacy, low income, poor health care system, gender inequality, and low standard of living (Todaro and Smith,

2011). Further with low and often inadequate spending by government on health care and education, requisite infrastructure necessary for improved human capital development in developing countries is extremely low. This low level of human capital development hinders the productivity level of individuals and results in a range of socio-economic challenges which include poverty and unemployment in society and which have risen overtime to a high level in a number of developing countries especially those of Sub Sahara Africa. Countries with significantly developed human capital on the other hand enjoy quite a number of benefits such as reduced poverty, increased employment opportunities, equitable income and wealth distribution, gender equality and sustainable economic growth rate. Countries with poor human capital development further feature demographic indicators such as low life expectancy, and high mortality rate.

Nigeria as a developing country in Sub Sahara Africa, in an attempt to develop her human capital so as to achieve sustainable growth embarked on some educational programs in the past, but these have only served as conduits to transfer money to the corrupt political leaders and their cronies. In 1967, Nigeria launched a mass-oriented education program; Universal Basic Education (UBE). The program was launched at Sokoto by the President at that time, Olusegun Obasanjo. However, not long after the period of commencement, the federal government reported that the falling standard of education in Nigeria is caused by "acute shortage of qualified teachers in the primary school level. It was reported that about 23 percent of the over 400,000 teachers employed in the nation's primary schools do not possess the Teachers' Grade Two Certificate, even when the National Certificate of Education (NCE) is the minimum educational requirement one should possess to teach in the nation's primary schools (Ogbeifum & Olisa, 2001). Nigeria in 1976 again launched the Universal Primary Education (UPE) but as noted, the program failed due to lack of funds resulting from corruption, amongst other factors. These have caused undesirable consequences for the

development of high quality human capital in Nigeria but, have not changed the focus of the Nation of Nigeria on human capital development in its objective to achieve significant levels of economic growth.

Given the high prospects of achieving economic growth in Nigeria which human capital development may contribute to, education and health therefore continues to receive significant attention from the Nigeria government. Thus, the present study examines the impact of human capital development on economic growth in Nigeria. In particular, it explores the contribution of health and education as major components of human capital development on Nigeria's economic growth.

### **1.1 Statement of Research Problem**

Nigeria as one of Africa's biggest economies has been faced with the problem of human capital development over the years. In spite of all the abundant resources the Nation has been endowed with, Nigeria has failed to realize her full development potential in terms of sustainable human capital development or people oriented development like many other prosperous economies of the world that have adopted a similar strategy to boost their economic growth. A large percentage of Nigeria's population estimated to be 182.2 Million according to World Bank, (2016) remain at rather low levels of literacy and often with insufficient access to education and health care. The government should be able to put more funds into education, healthcare, training, skills and other related factors in order to curb the persistent challenge of high unemployment rate, inadequate education, poor health and so on which will in turn feed back into the economy and thus promote economic growth.

Various studies while exploring human capital development and economic growth in Nigeria have often resulted in various findings with no consensus. This may be attributed to various measures used to measure human capital development as Education, Health, Productivity,

youth empowerment with no universal agreement on the measures. However life expectancy as an important health indicator whose importance as a component of human capital development continues to rise has seldom been used even though it remains at extremely low levels in a number of sub sahara Africa countries of which Nigeria is one. Further enrollment rates at both primary, secondary and tertiary level in a considerable number of existing studies have not all been used together in a single model exploring human capital development and economic growth (for example see, Adeyemi and Ogunsola 2016; and Jaiyeoba, 2015) whereas, primary school enrolment feeds into secondary school enrollment and secondary school enrollment feeds into tertiary school enrollment overtime, and hence all three school enrollment rates are important as human capital development measures which must consequently be used together in a single model Further, as no recent study has explored the contribution of human capital development on the growth of Nigeria to the best of the researchers' knowledge, a review of the Nigerian economy has become quite appropriate as a way of understanding more comprehensively Nigeria's human capital development over the years to date and how such human capital development may boost Nigeria's economic growth. This will enable an examination of how the Nigeria government has been able to pool funds in managing education, health, skills, training and other related factors as well as explore whether government efforts to address human capital development especially in recent time are yielding success, more so as achievement of high levels of Human capital development is key to the achievement of sustainable development. This is the research gap that the present study intends to fill.

## **1.2 Hypothesis Testing**

H<sub>0</sub>: Human capital development has no significant impact on economic growth in Nigeria.

H<sub>1</sub>: Human capital development has a significant impact on economic growth in Nigeria.

## **2.0 Literature Review and Theoretical Framework**

This section discusses human capital development and economic growth in Nigeria. It presents the theoretical as well as the empirical framework for the study.

### **2.1 Theoretical Framework**

Many studies have examined the relationship between human capital development and economic growth (such as Olalekan 2014; Obi & Obi, 2014; Borojo & Jiang, 2015; Hadir & Lahrech, 2015; Oladeji, 2015; Adeyemi & Ogunsola, 2016; Ekesiobi, Dimnwobi, Ifebi & Ibekilo, 2016) based on existing economic theories that link human capital development to economic growth which include; Human Capital Theory, Modernization Theory, Dependence Theory, Endogenous Growth Theory and Neoclassical growth theory. However, the endogenous growth theory was used for the purpose of this study.

#### **2.1.1 Endogenous Growth Theory**

Endogenous growth theory, according to Temple (2009) has stimulated economists' interest in the empirical evidence available from cross country comparisons, bearing on the main level relationship between human capital development and economic growth. Temple describes physical capital accumulation as sufficient to determine the dynamic evolution of output. To specify the growth path when human capital is included, it is necessary to consider an additional sector where the growth of human capital has taken place. Given that physical capital is characterized by diminishing returns, the required assumption for the model to exhibit a positive growth rate of output per worker in the steady state is that the technology for generating human capital has constant returns; meaning that the growth of human capital is assumed to be the same for a given effort, whatever the level of human capital attained. With the assumption, the rate of output growth (per worker) is positive and increasing in the productivity of education or on the job training in the creation of human capital.

## 2.2 Empirical Studies on Human Capital Development and Economic Growth

Adeyemi and Ogunsola (2016) examined the impact of human capital development on economic growth in Nigeria using time series data spanning from 1980-2013 of secondary school enrolment, life expectancy rate, government expenditure on education, gross capital formation and economic growth. Adeyemi and Ogunsola (2016) adopted the ARDL co-integration approach in their study and their study revealed a positive long-run relationship among secondary school enrolment, life expectancy rate, government expenditure on education, gross capital formation and economic growth. They therefore recommended that there should be more government financial commitment to education rather than health sector.

Olalekan (2014) examined the impact of human capital on economic growth in Nigeria using annual data on health and education, from 1980 to 2011. Olalekan (2014) adopted Generalized Method of Moment (GMM) techniques in the analysis and the estimated results provided evidence of positive relationship between human capital and economic growth in Nigeria. He therefore recommended that special attention should be given to health and education sectors simultaneously in Nigeria, such as increased budgetary allocation to the two sectors and to ensure proper implementation of programs in these two sectors in order to increase returns from these two sectors.

Oladeji (2015) investigated the relationship between human capital (through education and effective health care services) and economic growth in Nigeria, using annual time series data from 1980 to 2012. The study employed OLS methodology and revealed that there is a significant functional and institutional relationship between the investments in human capital and economic growth in Nigeria. Oladeji (2015) found that a long run relationship existed between education and economic growth in Nigeria. He therefore recommends that there is

need to increase budgetary allocation to Human Capital which includes the educational sector and the Health sector.

Hadir and Lahrech, (2015) examined the relationship between human capital development and economic growth in Morocco using annual data from 1973 to 2011. The ordinary least square regression method was adopted using total government expenditure on health and education, the enrolment data of tertiary, secondary and primary schools as proxy for human capital. The study revealed a positive relationship between total government expenditure on education, total government expenditure on health, primary school enrollment, secondary school enrollment and tertiary school enrolment. They therefore recommended that the effort of Government on increasing primary school enrolment through the free compulsory Universal Basic Education should be sustained and the government should invest more and more in Health. Thus improvements in health may increase output not only through labor productivity, but also through the accumulation of capital.

Obi and Obi (2014) focused on the impact of education expenditure on economic growth as a means of achieving the desired socio-economic change needed in Nigeria using time series data from 1981 to 2012. The Johansen's co-integration analysis and ordinary least square (OLS) econometric techniques were used to analyze the relationship between gross domestic product (GDP) and recurrent education expenditure. Findings indicate that though a positive relationship subsists between education expenditure and economic growth, but a long run relationship does not exist over the period under study. They suggest the improvement of the education system through efficient use of public resources through good governance, accountability and transparency. Also, efforts should be made by policy makers to come up with policies that would check, preserve and protect the plight of educational capital to other countries.



Jaiyeoba (2015) carried out an empirical investigation on the relationship between investment in education, health and economic growth in Nigeria, using time series data from 1982 to 2011. He employed trend analysis, the Johansen cointegration and ordinary least square technique. Empirical findings however indicate that there is a long-run relationship between government expenditure on education, health and economic growth. The variables: health and education expenditure, secondary and tertiary enrolment rate and gross fixed capital formation appear with the expected positive signs and are statistically significant (except government expenditure on education and primary enrolment rate). The findings of this work have strong implications on education and health policies and considering that they are of great debate in the country. Therefore, this study recommends that in order to accelerate growth and liberate Nigerians from the vicious cycle of poverty, the government should put in place policies geared towards massive investment in the education and health.

Sulaiman, Bala, Tijani, Waziri and Maji (2015) investigated the impact of human capital and technology on economic growth in Nigeria. They employed annual time series data for the period of 35 years (1975-2010) and applied autoregressive distributed lag approach to cointegration to examine the relationship between human capital, technology, and economic growth. Two proxies of human capital (secondary and tertiary school enrollments) were used in two separate models. Their result revealed that all the variables in the two separate models were cointegrated. Furthermore, the results of the two estimated models showed that human capital in form of secondary and tertiary school enrollments have had significant positive impact on economic growth. More so, technology also shows significant positive impact on economic growth. In a nutshell, both human capital and technology are important determinants of growth in Nigeria. Therefore, improvement of the educational sector and

more funding for research and development (R&D) to encourage innovations are needed to facilitate Nigeria's sustained economic growth.

Borojo and Jiang (2015) analyzed the impact of education and health (human capital) on economic growth from 1980 to 2013 in Ethiopia. Human capital stock is proxied by primary, secondary and tertiary school enrolment. Human capital investment is proxied by expenditure on education and health. The Augmented Dickey Fuller test and Johansen's Co-integration technique were used to test unit root and to validate co-integration among variables, respectively. Their study showed that public expenditure on health and education, primary and secondary school enrolment have positive statistically significant effect on economic growth both in long run and short run. In addition, physical capital has positive whilst inflation has negative effect on economic growth. However, tertiary school enrolment has insignificant effect on economic growth both in long run and short run. Based on their findings increasing primary and secondary school enrolment is recommended. In addition, substantial amount of government expenditure should be allocated towards health and education sectors to further increase contribution of the sectors to economic growth.

Ekesiobi, Dimnwobi, Ifebi and Ibekilo (2016) examined public sector education investment and manufacturing output in Nigeria. The study employed Augmented Dickey Fuller (ADF) unit root test and Ordinary Least Square (OLS) technique to analyze the relationship between public educational spending, primary school enrolment rate, per capita income, exchange rate, foreign direct investment and manufacturing output growth. The study revealed that public education spending has a positive but insignificant effect on manufacturing output growth in Nigeria. They recommended among other things, that government should target education spending in ways that favor manufacturing industry growth.

Lawanson (2015) investigated the relevance of educational and health components of human capital to economic growth, using a panel data from sixteen West African countries over the period 1980 to 2013. He employed Diff-GMM dynamic panel technique. The empirical findings indicate that coefficients of both education and health have positive statistically significant effects on GDP per capita. The paper affirms the strong relevance of human capital to economic growth of West Africa. He recommended that increased resources and policy initiatives to motivate and enhance access to both health and education by the population should be pursued by policy makers.

Ehimare, Ogaga-Oghene, Obarisiagbon and Okorie (2014) investigated the Nigerian government Expenditure on Human Capital Development. The level of human capital development, which is a reflection of the level of health and education of a nation affect the level of economic activities in that nation. The unit root test was conducted to determine whether the variables are stationary or not using Phillip Peron test. In order to capture the efficiency of government expenditure on human capital development in Nigeria, the data analysis was conducted using Data Envelopment Analysis involving Input Oriented Variable Return to Scale. The findings of the study revealed that there has been significant reduction in the efficiency of government expenditure since 1990 up till 2011 which has been decreasing. This result therefore could be evidenced from the poor quality and output experienced in the Nigerian education sector. It is therefore recommended that efforts should be made to encourage, promote self-dedication, commitment and service delivery in order to improve on the quality of educational output in Nigeria in terms of quality of human capital and capacity building.

Ajadi and Adebakin (2014) examined human capital development as correlate of economic growth in Nigeria, The descriptive survey research was adopted and multi-stage sampling technique was used to select a total of 200 respondents used for the study. An adopted

questionnaire with 0.86 reliability index was used for data collection. Data collected were analyzed using the Pearson's Product Moment Correlation Coefficient. The findings showed that education has a predictive r-value of 0.76 on individual personal income and the nature of job (employment) is related to individual personal income ( $r=0.64$ ). It, therefore, concluded that economic growth is a function of individual income level and recommended that government should develop appropriate educational policy to provide the human capital need of the society for economic growth

### **3.0 Methodology**

This study employed the survey research design and the time series annual secondary data was adopted for the purpose of the study. The choice of the time series is premised on the fact that the data used in this study was gathered over a period of time and aims at investigating the effect of human capital development on economic growth in Nigeria.

The ordinary least squares regression (OLS) was used to examine the impact of human capital development on economic growth in Nigeria. The study used Gross Domestic Product as the dependent variable while human capital development measured by total government expenditure on health, total government expenditure on education, life expectancy rate, primary school enrolment, secondary school enrolment and tertiary school enrolment was used as the independent variables.

Data on total government expenditure on health and total government expenditure on education were obtained from the Central Bank Statistical Bulletin while data on life expectancy rate, primary school enrolment, secondary school enrolment, and tertiary school enrolment were obtained from World Bank World Development indicators for the period of 1981 to 2015.

### 3.1 Model Specification

Human capital development has been identified as one of the major factors influencing economic growth of most economies of the world. On this basis, a functional relationship may be argued to exist between human capital development and economic growth. To estimate the impact of human capital development on economic growth in Nigeria, the study adopted the modified model of Hadir & Laurech (2015) by the inclusion Life Expectancy variable.

Economic Growth =  $f$ (Total Government expenditure on education, Total Government expenditure on health, Life expectancy, Primary school enrolment, Secondary Education Enrolment, Tertiary Education Enrolment) (1)

Equation (1) above is specified as an econometric model in equation (2) below:

$$\log GDP = \alpha_0 + \alpha_1 LER_t + \alpha_2 \log TGEE_t + \alpha_3 \log TGEH_t + \alpha_4 PSE_t + \alpha_5 SSE_t + \alpha_6 TSE_t + \varepsilon_t \quad (2)$$

Where,

GDP = Gross Domestic Product

LER = Life Expectancy Rate

TGEE= Total Government Expenditure on Education

TGEH= Total Government Expenditure on Health

PSE= Primary School Enrolment

SSE= Secondary School Enrolment

TSE= Tertiary School Enrolment

$\varepsilon$ = Error Term

$\alpha_0$  is the constant, and  $\alpha_1, \dots, \alpha_6$  are the coefficients of the respective independent variables of the above model capturing the impact of changes in each independent variable on the

dependent variable. The Subscripts, t, refer to the time period of observations and in the case of the present study t= 1981 – 2015.

### 3.2 A priori Expectations

A priori expectations refer to the expected sign of the coefficient of explanatory variables and show the expected impact of explanatory variables on dependent variable. The a priori expectations for the explanatory variables in the present study are as follows:

$$\alpha_1 > 0, \alpha_2 > 0, \alpha_3 > 0, \alpha_4 > 0, \alpha_5 > 0, \alpha_6 > 0$$

### 3.3 Description of Variables

**Gross Domestic Product:** This is the monetary value of all finished goods and services produced within a country's boarder in a specified time period. In entering the specified model in Log form, Log GDP captures economic growth.

**Life Expectancy Rate:** This is the average number of years an individual at a given age is expected to live at current age specific mortality rate.

**Total Government Expenditure on Education:** This is the spending of the Nigeria government on education.

**Total Government Expenditure on Health:** This is the spending of the Nigeria government on health

**Primary School Enrolment:** This is the total enrolment in primary education, regardless of age, expressed as a percentage of the population of official primary education age.

**Secondary School Enrolment:** This is the total enrolment in secondary education, regardless of age, expressed as a percentage of the population of official primary education age

**Tertiary School Enrolment:** This is the total enrolment in tertiary education, regardless of age, expressed as a percentage of the population of official primary education age

#### 4.0 Results

This section presents the data analysis of the secondary data gathered from the Central Bank Statistical Bulletin and the World Bank World development indicators Data for the period 1981 to 2015. The data extracted are presented using tables for easy data presentation and understanding. The data analyses also contain the hypothesis tested.

**Table 1: Ordinary Least Square Regression Result**

Dependent Variable: LOGGDP			
Variables	Coefficient	Standard Error	Probability
C	6.642612***	2.029022	0.0028
LER	-0.026937	0.042377	0.5302
PSE	-0.008683	0.006092	0.1651
SSE	0.032409**	0.015440	0.0450
TSE	0.207059***	0.068229	0.0052
Log TGEH	0.394305**	0.150673	0.0141
Log TGEE	0.168575**	0.155824	0.0286
R-squared= 0.989073			
Adjusted R-squared= 0.986732			
F-statistic= 422.4246			
Prob(F-statistic) = 0.000000			
Durbin-Watson stat= 2.363142			
***, ** represents 1%, and 5% level of significance respectively			

**Source: Author's Computation (2017)**

The diagnostics of the above regression results namely the R-squared, F-statistic and Durbin Watson statistic which are the major measures for examination of the validity of OLS regression models may be observed from Table 1 above. The Adjusted R-Squared which is a

more precise measure of goodness of fit is 0.986732. This implies that about 98.7% changes in economic growth of Nigeria over the period of 1981 and 2015 are as a result of changes in the independent variables (Life Expectancy Rate, Total Government Expenditure on Education, Total Government Expenditure on Health, Primary School Enrolment, Secondary School Enrolment, and Tertiary School Enrolment). The F-statistic of the model is 422.4246 and it is statistically significant at the 5% level of significance, this indicates that the model is well specified. The Durbin-Watson statistic value of the model is 2.36. This value indicates that the model is free from any problem of serial correlation. This further means that the present period residual of the model is not correlated with previous period residuals of the model. On the basis of the F-statistic, Durbin-Watson statistic and acceptability of the R-squared and adjusted R-squared, the Ordinary least squares regression results can be concluded to be valid.

From the regression results shown in Table 1 above, the model of the study can be rewritten as:

$$\begin{aligned} \log GDP = & 6.642612 - 0.026937LER_t + 0.168575\log TGE_t + 0.394305\log TGEH_t - \\ & 0.008683PSE_t + 0.032409SSE_t + 0.207059TSE_t + \varepsilon_t \end{aligned} \quad (3)$$

The constant  $\alpha_0$  of the regression model is 6.642612; it is positive and statistically significant at 5% level of statistical significance. The constant provides the value of economic growth when all the independent variables are simultaneously held at zero; this implies that when all independent variables of this model are simultaneously held to be zero, the economic growth is 6.642612 and positive.

The coefficient of Life expectancy (LER) is -0.026937 and it is statistically insignificant at 5% level of significance. This negative coefficient value of Life expectancy means that a



100% increase in life expectancy will result to 2.6937% decrease in economic growth. Although this finding seems not consistent with previous studies, but could be associated with the fact that increased life expectancy would result to overuse of the limited infrastructure and productive resources thereby yielding reduced economic growth, especially in economies with huge population such as Nigeria.

The coefficient of Primary School Enrollment (PSE) is -0.008683 and it is statistically insignificant at 5% level of significance. This negative coefficient value, although statistically insignificant but it implies that 100% increase in Primary School Enrolment will result in a 0.8683% decrease in economic growth. The finding of negative impact of primary school enrollment as a Human capital development indicator on economic growth in the present study contrasts with findings by studies as Hadir and Lahrech (2015) and Borojo and Jiang (2015) who find positive impact of primary school enrolment on economic growth but this may be on account of primary school enrollment resulting in pressure being put on limited primary school education facilities and therefore adversely affecting the quality of primary education received by Nigeria citizens.

The coefficient of Secondary School Enrolment (SSE) is 0.032409 and it is statistically significant at the 5% level of significance. This positive coefficient value of Secondary School Enrolment implies that 100% increase in Secondary School Enrolment will result in a 3.2409% increase in economic growth. This finding is consistent with findings of studies indicative of positive effect of Human capital development as measured by education in general or secondary school enrollment specifically, on economic growth such as Hadir and Lahrech (2015), Borojo and Jiang (2015) and Lawanson (2015). This can be further explained by advanced knowledge gained in Secondary school which boosts the quality of human capital and consequently, Nigeria's economic growth.

The coefficient of Tertiary School Enrolment (TSE) is 0.207059 and statistically significant at the 5% level of significance. This positive coefficient value of Tertiary School Enrolment implies that 100% increase in Tertiary School Enrolment results in a 20.7059% increase in economic growth. This is consistent with findings of studies indicative of positive effect of Human capital development as measured by Tertiary school enrollment on economic growth such as Hadir and Lahrech (2015), and Sulaiman, Bala, Tijani, Waziri and Maji (2015). This is so as just like secondary school enrolment, tertiary enrollment allows Nigerians to receive advanced education which improves their human capital quality and positions them for contributions to the economy thereby boosting the economic growth of Nigeria.

The coefficient of Total Government Expenditure on Health (TGEH) is 0.394305 and statistically significant at the 5% level of significance. This positive coefficient value of total government expenditure on health implies that 100% increase in total government expenditure on Health will result in 39.4305% increase in economic growth. This finding of positive effect of total government expenditure on health on economic growth is consistent with the findings of studies like Borojo and Jiang (2015). This can be explained by the capacity of individuals that would be increased due to increased total government expenditure on health, thereby causing these individuals to perform more efficiently and increasing overall productivity in the economy.

The coefficient of Total Government Expenditure on Education (TGEE) is 0.168575 and is statistically significant at the 5% level of significance. This positive coefficient value indicates that 100% increase in total Government Expenditure on education will result in a 16.8575% increase in economic growth. This finding of positive effect of total government expenditure on Education is consistent with findings of previous studies like Obi and Obi (2014). This can be associated with the improved level of infrastructures required for quality education delivery which occurs due to increase in total government expenditure on

education. As quality of education increases, human capital is developed, performance at workplace is improved thereby causing economic growth of Nigeria.

## **5.0 Conclusion and Recommendations**

### **5.1 Conclusion**

The present study examined human capital development and economic growth in Nigeria over the period of 1981 to 2015. The endogenous growth theory was adopted for the purpose of achieving the objective of this study. The study revealed that human capital development has impact on economic growth of Nigeria. This is as evidenced by the positive and significant contribution of human capital indicators of Secondary school enrolment, Tertiary school enrolment, Government health expenditure and government education expenditure, to economic growth of Nigeria. The Nigerian government therefore needs to ensure that it invests significantly in the development of Nigeria's Human capital to the highest standards to ensure that Nigeria optimally benefits from such human capital development and it experiences improved economic growth as a result. Our results generally support our a priori expectations and align with most studies highlighting a positive impact of Human capital development on economic growth. However of concern is the negative and insignificant impact of primary school education on economic growth which should be a basic benefit of each and every Nigerian citizen in ensuring that secondary school enrollment and tertiary school enrollment continue to make valued contributions to Human capital development in Nigeria.

### **5.2 Policy Recommendations**

The following policy recommendations are made on the basis of findings of the present study as to how government can boost the economic growth of Nigeria through the positive contribution of human capital development:

1. The Nigeria government should increase its total expenditure on education so that adequate educational facilities for thorough and proper quality education delivery would be made available.
2. The Nigeria Government should ensure sufficient budgetary allocation on health expenditure in order to make proper health care facilities available to Nigeria citizens.
3. The Nigerian government should ensure a standard is set across all secondary and tertiary institutions in the country so that proper human capital required for any individual to become productive is enhanced.
4. The Nigeria government should make health care and education more accessible through improving its affordability to the common individual in society so as to boost the economic growth of Nigeria through human capital development.

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