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HUMAN CAPITAL INVESTMENT AND ECONOMIC GROWTH IN NIGERIA

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Abstract

This study has tried to answer the question: Does human capital investment lead to economic growth in Nigeria? One of the three objectives of the study is to determine if interactive (proper mix) investment in education and health leads to economic growth in Nigeria. In carrying out the study three theories which relating to human capital development to Economic Growth were reviewed, which are: Human Capital Theory, Modernization Theory and Dependence Theory. The study spans from 1991 to 2017 and adopts Osoba & Tella (2017) model framework with the inclusion of distributed lag because investment in human capital does not take effect in the economy immediately. The unit root test showed that apart from the interaction of health & education expenditure which was stationary at level others were stationary at first difference. The result of the co-integration test showed that there is a long term relationship between the dependent and independents variables. The result of the regression analysis showed that expenditure on health has a negative and insignificant impact on the economic growth of Nigeria, while expenditure on education and expenditure on the interaction (mix) of education & health have positive and significant impact on Nigeria economic growth. Although, expenditure on education has positive impact on Nigeria economic growth but not as much when the expenditure is on the interaction/proper mix of health and education. One of the

recommendations of the study is that investment in human capital (proper mix of health & education) is the best form of investment for any economy and also, high level of human capital development holds the key to the nation's socioeconomic development.

Keywords: Health, Education, Human Capital, Economic Growth

INTRODUCTION

Human Capital is an essential part of any country's development and economic growth. Human capital can be defined as the mix of the knowledge, skills, competencies and other attributes embodied in individuals or groups of individuals acquired during their life and used to produce goods, services or ideas of an economy, which is a function of proper interaction of educational and health standards of the nation. According to Organization for Economic Co-operation Development -OECD- (2001), human capital is concerned with knowledge, skills competitiveness and attributes embedded in an individual that facilitates the creation of personal, social and economic wellbeing. Health and education are two closely related human capital components that work together to make the individual more productive. Taking one component, (education or health) as more important than the other is unrealistic as a more educated individual, who is ill, is as inefficient as an illiterate. Both components are thus related together because of their close relationship. Appleton and Teal (1998), describe health and education as components of human capital that are contributors to human welfare. They describe these components as different from other types of goods produced in societies.

The economic rationale for investing in human capital derives from the belief that human capital plays a key role in economic growth. According to Todaro and Smith (Oluwatoyin 2011), human capital must be given direct attention in its own right, even in economies that are growing rapidly. This points to the fact that the importance of this key concept centers not on just developing countries who wish to break free of their vicious cycle, but also developed countries that aspire to achieve sustainable growth and development. Schultz (Oluwatoyin 2011), one of the early contributors to the study of the importance of human capital, identifies five ways by which human capital can be developed. They are as follows: (i) health facilities and services, broadly conceived to include all expenditures that affect the life expectancy, stamina, strength, vigour and vitality of people,(ii), on-the-job- training, including old type apprenticeships organized by firms, (iii), formally organized education at the elementary, secondary, and higher levels, (iv), study programs for adults that are not organized by firms, including extension pro-

grams notably in agriculture, and (v), migration of individuals and families to adjust to changing job opportunities.

These ways all seek to make the individual more productive. Investment in health and education (the two components of human capital) thus leads to the development of human capital. The development of human capital transcends mere acquisition of intellectual ability through the education system, or the living of a healthier life through adequate healthcare. It seeks to improve the productivity of the individual and make him/her more useful to society and the economy in general. However, human capital is recognized as a mediator of national development in all countries of the world. The availability of education and health services to people is one of the major ways of improving the quality of human resources. It provides an economy with healthy trained human resources required for economic growth and development.

Nigeria as a country is immensely endowed both in natural and human resources. The pool of resources from one end to the other is unquantifiable to such extent that, given a dynamic leadership, economic prosperity would have been achieved in late 20th century. The primary focus of Nigeria has been finding a way to accelerate the growth rate of national income and to engage in structural transformation of her subsistence and resource based economy to a production and consumption based economy in order to break the cycle of poverty, low productivity and stagnation. In Nigeria, the rate of illiteracy is very high. Most of the workers are unskilled and they make use of outmoded capital, equipment and methods of production. Also, according to Kpamor (2012), Nigeria has some of the poorest health indicators in the world, with a statistics of one physician density of 1 to 1000 clients. Same applies to nursing and midwifery, pharmaceutical personnel and other health personnel. Adding the high illiteracy rate and low health care services, by implication, will bring about extremely low marginal productivity and this leads to low real income, low savings, low investment and consequently low rate of capital formation which retard economic growth and development. On the contrary, the few skilled workers who are healthy are confronted with daily closure of industries which has left many skilled workers idle. Nigeria cannot fully exploit the abilities and skills of human capital as they do not have enough jobs to offer. Thus, Nigeria has become a human capital generating machine for the developed countries. Theoretical and empirical literature have it that human capital investment brings about development in various ways, however, the situation in most developing countries (Nigeria) might prove otherwise. This might prove otherwise in developing economy like Nigeria is the research problem of this study. In this regard, this study seeks to ask, does human capital investment lead to economic growth in Nigeria?

Objectives of the Study

The main objective of this study is to determine if human capital investment lead to economic growth in emerging economies like Nigeria. Specifically, the objectives are to:

-determine if investment in education leads to economic growth in Nigeria

-examine if investment in health leads to economic growth in Nigeria

-investigate if interactive (proper mix) investment in education and health leads to economic growth in Nigeria.

LITERATURE REVIEW

Theories of Human Capital Development and Economic Growth

Contemporary discussions on human capital development and economic growth have been dominated by three theories discussed below:

Human Capital Theory: This theory shows how education leads to increase in productivity and efficiency of workers by increasing the level of their cognitive skills. Theodore, Schultz, Gory Bucker and Jacob Mincer introduced the notion that people invest in education or as to increase their stock of human capabilities which can be formed by combining innate abilities with investment in human beings (Babalola, 2003). Examples of such investments include expenditure on education, on- the- job training, health, and nutrition. However, the stock of human capital increases in a period only when gross investment exceeds depreciation with the passage of time, with intense use or lack of use. The provision of education is seen as a productive investment in human capital, an investment which the proponents of human capital theory considers to be equally or even more equally worthwhile than that in physical capital. Human capital theorists have established that basic literacy enhances the productivity of workers with low skill occupations. They further state instruction that demands logical and analytical reasoning that provides technical and specialized knowledge increases the marginal productivity of workers in high skill or profession and positions. Moreover, the greater the provision of schooling society and consequently, the greater the increase in national productivity and economic growth.

The Modernization Theory: This theory focuses on how education transforms an individual's value, belief and behavior. Exposure to modernization institutions such as schools, factories, and mass media inculcate modern values and attitudes. The attitude include openness to new idea, independences from traditional authorities, willingness to plan and calculate further exigencies and growing sense of personal and social efficacy. According to the modernization

theorists, these normative and attitudinal changes continue throughout the life cycle, permanently altering the individual's relationship with the social structure. The greater the number of people exposed to modernization institutions, the greater the level of individual modernity attained by the society. Once a critical segment of a population changes in this way, the pace of society's modernization and economic development quickens. Thus, educational expansion through its effects on individual values and benefits sets in motion the necessary building blocks for a more productive workforce and a more sustained economic growth.

The dependence theory: This theory arose from Marxist conceptualizations based on the dynamic world system that structures conditions for economic transformation in both the core and periphery of the world economy. Certain features of the world polity such as state fiscal strength, degrees and regime centralization and external political integration may contribute to economic growth in the developing world.

Empirical Literature

Several studies have empirically examined the impact of human capital investment on economic growth. In this study the following empirical works are reviewed. Pritchett (2001) disclosed that cross-national data shows no association between increase in human capital attributable to the rising educational attainments of the labour force and the rate of growth of output per worker. Specifically, he reports that the estimates of the impact of growth in education capital on growth per workers are insignificant.

Muhammad, Abiodun and Manzoor (2018) evaluate the relationship between human capital and economic growth. Using data for 132 countries over 15 years, the empirical results reveal that human capital plays a positive role in per capita GDP growth only in the presence of better economic opportunities and high-quality legal institutions. In fact, economic opportunities reinforce the effect of human capital on growth: the easier it is to do business and trade domestically or internationally, the stronger the effect of human capital on growth. In conclusion, the endings suggest that inconclusive results in previous empirical studies on human capital and growth might be due to omitted variable bias as these studies do not include variables related to social capabilities.

Arabi and Abdalla (2013) empirically investigated the impact of human capital on economic growth in Sudan for the period 1982-2009 by using a simultaneous equation model that links human capital i.e. school attainment, investment in education and health on economic growth, total productivity, foreign direct investment, and human development index. Based on three-stage least squares technique, the empirical results of the study showed that quality of the

education has a determinant role in the economic growth; health quality factor has a positive impact on economic growth as expected and total factor productivity which mainly represents the state of technology has adverse effect on economic growth and human development due to the obsolete and old fashion technology in the country.

According to Schultz,(2002) good health is a necessary condition for school attendance since a child has to be healthy to endure the rigours of schooling. Also, healthier students, in contrast to their less healthy counterparts, have lower malingering and higher cognitive functioning, and thus receive a better education for a given level of schooling which in turn guarantees higher earning over a longer period of time. Sound health enhances workers" productivity through the spill-over effects on their physical and mental abilities. All other things being equal, it is presumed that healthy workers work harder and longer and reason more plainly than those who are less gifted with good health. Good health can also minimize the incidence of poverty through higher labour participation and reduction in cost of medical services, thus releasing income for other welfare-improving consumption. This condition holds irrespective of whether the worker is skilled or unskilled.

Lustig (2006) examined a direct relationship between health and growth in Mexico uses 1970-1995 data and uses life expectancy and mortality rates for different age groups as health indicators. He observed that health is responsible for approximately one-third of long term economic growth. He considered health to be an asset with an intrinsic value as well as instrumental value. According to him, good health is a source of wellbeing and highly valued throughout the world.

Dauda (2010) examined investment in education and economic growth in Nigeria using annual time series data from 1977 to 2007. The paper employs Johansen cointegration technique and error correction methodology. Empirical results indicate that there is a long-run relationship between investment in education and economic growth. The main variable of interest, the growth rate of educational expenditure had positive and significant effect on economic growth in Nigeria. The result indicates that educational investment plays a crucial role in developing an economy and it enhances growth in the nation's income. The coefficient of growth of gross fixed capital formation has positive and statistically significant effect on the Nigerian economy.

Musibau and Rasak (2005) carried out a study on the long-run relationship between education and economic growth in Nigeria using the Johansen's co-integration techniques. It was discovered that there is a long-run relationship between education and economic growth in Nigeria. They also found out that a long-run effect of a 1 percent increase of average years of

schooling on output per worker while keeping the other variable constant is approximately 0.86 percent while the long-run elasticity of capital is 0.139 percent.

Jaiyeoba (2015) empirically investigated the relationship between investment in education and health in Nigeria, using time series data from 1982 to 2011. The paper employed trend analysis, the Johansen cointegration and ordinary least square technique. Empirical findings however indicated 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, the 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.

Osoba and Tella (2017) empirically investigated the interactive effect of human capital variables and economic growth in Nigeria. The results of the study showed that there was positive and significant relationship between the interactive effects of human capital components and growth in Nigeria. The study concluded that the interactive effect of the human capital variables was also in conformity with the theoretical proposition that increase in human capital will enhance growth as stipulated in the modified Solow growth model.

Oboh, Rahmah and Abu (2010) study the impact of human capital development on economic growth in Nigeria during the period 1970 to 2008. Johansen cointegration technique and vector error correction analysis were used to ascertain this relationship. The basic macroeconomic variables of concern derived from the literature review are: Real gross domestic product (RGDP), real capital expenditure (RCE) on education, real recurrent expenditure (RRE) on education, real capital stock (RCS), total school (SCHE) enrolments and labour force (LF) are used to proxy human capital development. The result indicated that human capital development has a significant impact on Nigeria's economic growth and concluded that there can be no significant economic growth in any country without adequate human capital development.

Isola and A Alani (2014) examined the contribution of different measures of human capital development to economic growth in Nigeria. They used data from Nigeria and adopted the growth account model which specifies the growth of GDP as a function of labour and capital. The model also included a measure of policy reforms. Based on the estimated regression and a descriptive statistical analysis of trends of government commitment to human capital

development, it was found that though little commitment had been accorded health compare to education, empirical analysis showed that both education and health components of human capital development are crucial to economic growth in Nigeria.

Adelakun (2011) noted that human capital is an important factor used in converting all resources to mankind's use and benefit and observed that the development and utilization of human capital is important in a nation's economic growth and evaluates human capital development and economic growth in Nigeria by adopting conceptual analytical framework that employed the theoretical and ordinary least square (OLS) to analyze the relationship using the GDP as proxy for economic growth; total government expenditure on education and health, and the enrolment pattern of tertiary, secondary and primary schools as proxy for human capital. The analysis confirms that there is strong positive relationship between human capital development and economic growth. The study recommended that stakeholders need to evolve a more pragmatic means of developing the human capabilities, since it is seen as an important tool for economic growth in Nigeria. Also proper institutional framework should be put in place to look into the manpower needs of the various sectors and implement policies that will lead to the overall growth of the economy.

Jaiyeoba (2015) study the relationship between investment in education, health and economic growth in Nigeria, using time series data from 1982 to 2011. This study 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 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.

Ogunleye, Owolabi, Sanyaolu and Lawal (2017) employed the ordinary least square regression analysis to examine the impact of human capital development on economic growth of Nigeria, using annual time series date 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 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.

Anaduaka and Eigbiremolen (2014) employed the augmented Solow human-capital-growth model to investigate the impact of human capital development on national output, a proxy for economic growth, using quarterly time- series data from 1999-2012. Empirical results show that human capital development, in line with theory, exhibits significant positive impact on output level. This implies that human capital development is indispensable in the achievement of sustainable economic growth in Nigeria, as there is an increase in economic performance for every increase in human capital development. The results further reveal a relatively inelastic relationship between human capital development and output level. Going forward, government and policy makers should make concerted and sincere efforts in building and developing human capacity through adequate educational funding across all levels. This remains the major way of attaining sustainable economic growth and development in any economy.

Obialor (2017) examines the effect of government human capital investment on the economic growth of three Sub-Sahara African (SSA) countries of Nigeria, South Africa and Ghana from 1980 to 2013. The objective is to analyze the growth effect of three government human capital investment variables of health, education and literacy rate on the economies of these countries; Secondary data are sourced from World Development Indicators (WDI) online Database and analyzed using Co-integration techniques and Vector Error Correction mechanism (ECM) at 1% and 5% significance levels. The results indicate that two out of the three human capital proxy variables; Health, (GIH), and Education (GIE), show significant positive effect on growth only in Nigeria, while literacy ratio (LR)is insignificantly positive in all countries. This study concludes that in spite of the above result, the SSA countries' economies still exhibit the potentials for enhanced economic growth in the long run judging from the VECM test results. The study therefore, recommends for SSA countries to prioritize skill development, increase budgetary allocations, as well as promote policies that enhance school enrolment in secondary schools in the sub-region.

In summary, majority of the studies have only examined the individual effect of education and health components of human capital while the issue of their interactive effects on economic growth was only examined by Osoba and Tella (2017). This one study is not enough to conclude, so this study tends to support or otherwise of Osoba and Tella and add to the

literature by determining if the interactive proper mix) effects of human capital components leads to economic growth in Nigeria.

METHODOLOGY

The human capital theory places emphasis on investment in humans than in physical capital because the human capital works on the physical capital through adequate skill being acquired to operate the physical capital in place. This prepares the country for a better future since the productive capacity of individuals is improved, thus economic growth will be enhanced. The productivity in an economy depends on the level of efficiency of labour and capital inputs. Increase in investment in human capital brings about the efficient use of labour and capital resources.

The framework adopted in this study is similar to that of Osoba & Tella (2017). Hence, this study adopts the model equation

$\ln rGDP=\alpha_0 + \alpha_1 \ln PH + \alpha_2 \ln ED + \alpha_3 \ln HE + \alpha_4 \ln(ED*HE) + \varepsilon$ ……(1)

Where PH is physical capital, ED is education, HE is health and rGDP is real gross domestic product

From equation (1), this study removes PH (physical capital) because this study is mainly on human capital investment. This leads to

$\ln rGDP=\alpha_0 + \alpha_1 \ln ED + \alpha_2 \ln HE + \alpha 3 \ln(ED*HE) + \varepsilon$ ……..……...(2)

Investment in human or physical capital does not manifest immediately in the economy and due to the changing nature of Nigeria budget cycle, this study incorporates the distributed lag model into equation (2). Also, because this study uses annual serial data, the lag is limited to one year. This leads to

$\ln rGDP=\alpha_0 + \alpha_1 \ln ED_{-1} + \alpha_2 \ln HE_{-1} + \alpha_3 \ln(ED*HE)_{-1} + \varepsilon$ ……..…(3)

Since data on education and health expenditures are in nominal terms, so the GDP should be in same term. In this regard, nominal GDP is used for this study, hence,

$\ln GDP=\alpha_0 + \alpha_1 \ln ED_{tex-1} + \alpha_2 \ln HE_{tex-1} + \alpha_3 \ln(ED_{tex}*HE_{tex})_{-1} + \varepsilon$ ……(4)

Where ED_{tex} is the investment in education proxied by total expenditure on education.

HE_{tex} is the investment in education proxied by total expenditure on health.

$ED_{tex}*HE_{tex}$ is the interaction investment in education and health proxied by total expenditure on health and education.

GDP is the nominal gross domestic product

In is natural log.

α_0 is Intercepts or constants.

α_1 , α_2, α_3 are Coefficients of explanatory variables

ε is disturbance term

Equation (4) is the model of the study. The data for this study is from Central Bank of Nigeria (CBN), National Bureau of Statistics (NBS) etc, and the study spans from 1991-2017.

ANALYSIS

Pre-Estimation Test

Table 1 Unit-Root Test Result by Augmented Dickey Fuller Method

Variables	Level	First Difference	Order of Integration
InGDP	-	-4.670940	I(1)
$InED_{tex-1}$	-	-3.474120	I(1)
$InHE_{tex-1}$	-	-2.997785	I(1)
$In(ED_{tex}*HE_{tex})_{-1}$	-3.308215	-	I(0)

The study tested the variables for unit root problem using Augmented Dickey Fuller Test. The result of the stationarity test showed that all the variables were stationary at first difference using five percent significant level as shown in table-1- above, except the interaction of health and education ($In(ED_{tex}*HE_{tex})_{-1}$) which is stationary at level or origin .Having established the stationarity of the variables, the researcher tested whether the said variables have long run co-movement using Johansen cointegration test.

Table 2 Johansen Cointegration Result

Eigenvalue	Trace test	5 Percent Critical Value	Hypothesized No. of CE(s)
0.882658	98.24022	47.21	None **
0.752777	44.67371	29.68	At most 1 **
0.220329	9.737139	15.41	At most 2
0.131165	3.515056	3.76	At most 3

*(**) denotes rejection of the hypothesis at 5% significance level

L.R. test indicates 2 cointegrating equation(s) at 5% significance level

The result of table -2- shows that there exist two (2) co-integrating equations at 5% level of significance. This is because the trace test statistic is greater than the critical value at 5%. This shows that there is long run relationship between the dependent variable (GDP) and the independent variables (education, health and interaction of education and health).

Table 3 Regression Estimation

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.075237	0.465315	0.161691	0.8731
$InED_{tex-1}$	0.525177	0.249266	2.106891	0.0473
$InHE_{tex-1}$	-0.523679	0.257028	-2.037443	0.0544
$In(ED_{tex}*HE_{tex})_{-1}$	0.710631	0.016910	42.02469	0.0000
R-squared	0.989446	Mean dependent var		15.74077
Adjusted R-squared	0.987436	S.D. dependent var		3.557342
S.E. of regression	0.398735	Akaike info criterion		1.170004
Sum squared resid	3.338788	Schwarz criterion		1.411945
Log likelihood	-10.21005	F-statistic		492.2140
Durbin-Watson stat	2.132535	Prob (F-statistic)		0.000000

The result in table-3- indicates that approximately 99% (R-square) of the systematic variation in the dependent variable (GDP) is explained or accounted for by the independent variables (education, health and mix/interaction of education and health). This is endorsed by the R-bar square which is approximately 99% too. The result also showed that at least or all the independent variables are significant with the probability of the f-statistic (0.000) less than 0.05. The result of the DW statistic (2.13) approximately “2” indicates the absence of serial autocorrelation in the model. All the independent variables agreed to apriori expectation except health total expenditure which is negative. Outside the independent variables, the GDP will operate at 0.075237 units.

The result of the education expenditure shows that a one unit increase in the total expenditure on education will positively gyrate the economy by 0.525 units and has a significant impact on the GDP because the p-value (0.047) is less than 0.05. This is in contrast with Pritchett (2001) who reported that there is no association between increase in human capital attributable to the rising educational attainments of the labor force and the rate of growth of output per worker, and also reported that the estimates of the impact of growth in education capital on growth per workers are insignificant. However, the result of this study is in conformity with the studies of Musibau & Rasak (2005), Dauda (2010), and Jaiyeoba (2015).

On health expenditure, the result shows that a one unit increase in the total expenditure on health will negatively gyrate the economy by 0.524 units and has an insignificant impact on the GDP because the p-value (0.0544) is greater than 0.05. This is contrarily to the study of Schultz,(2002) who reported that good health is a necessary condition for school attendance and also that healthy workers work harder and longer and reason more plainly than those who

are less gifted with good health. The study is also not in conformity with Lustig (2006) who reported that good health is a source of wellbeing and highly valued throughout the world.

Lastly, on the interaction (proper mix) of expenditure on education and health, the result shows that a unit increase in the total expenditure on the mix/interaction of education and health will positively gyrate the economy by 0.710631 and has a huge significant impact on the GDP because the p-value (0.0000) is less than 0.05. This is in conformity with the study of Osoba & Tella who reported that that there was positive and significant relationship between the interactive effects of human capital components (health and education) and growth in Nigeria and this is in-line with theoretical proposition that increase in human capital will enhance growth and development.

CONCLUSION AND RECOMMENDATIONS

This study is tried to answer the question, "Does human capital investment lead to economic growth in Emerging Economies?" From the study, it is clear that individual investment in education or health would not result in premium economic growth as when there is a proper mix or interaction in the investment of both. From the result, it is clear that investment in health individually would lead to negative growth in GDP. However, the investment in education individually would lead to positive growth in GDP but will not as much when there is a proper mix or interaction in the investment of education and health. This is in agreement with what Bill Gate said that investment in physical asset will not generate enough growth and development like investment in human capital (health and education) because physical asset cannot operate in isolation. It has been established that basic literacy enhances the productivity of workers with low skill occupations. They further state instruction that demands logical and analytical reasoning provides technical and specialized knowledge increases the marginal productivity of workers in high skill or profession and positions. Moreover, the greater the provision of schooling society and consequently, the greater the increase in national productivity and economic growth.

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 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.

So Nigeria government and policy makers at all levels should take investment in human capital as serious as never as it has been shown in this study and others studies that human

capital investment is the best form of investment for any economy as espoused by human development theory and also high level of human capital development holds the key to the nation's socioeconomic development.

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