Intellectual Capital Formation and Economic Growth in Nigeria

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Abstract
Education develops in individuals both physical and intellectual capacities which are critical for economic growth of a country. This study examines the contributions of education to growth in Nigeria using secondary data covering periods of 1980-2011. The unit root and Co-integration tests were conducted and Error Correction Mechanism (ECM) was employed. The results show that public investment in education maintains a positive long run relationship with economic growth while the school enrolments and real capital investment exhibit long run negative relationship with economic growth. The study therefore, among others recommends that the policy makers should pay more attention to education sector in terms of its yearly allocations and disbursement, also put in place the policy to increase the school enrolment ratio of the population and then invest more in the acquisition of physical capital to stimulate rapid economic growth in Nigeria.

Keywords: public expenditure, intellectual capital, education, real investment, economic growth.

1. INTRODUCTION
Education has a wide range of indirect benefits which instigate powerful changes in peoples’ attitude to work and society. It makes it easier for people to learn new skills throughout their lives and hence facilitate their participations in modern economies and societies. Education has positive impacts on the economy and so, investment in education and training is imperative if the aim is to propel the economy to higher level of productivity and income and thereby accelerate the rate of economic growth. Education increases the number of knowledgeable workers by improving their skills and enabling them to new challenges. In addition, education enhances their occupational mobility, reduces the level of unemployment in the economy, increases the earning capacity and productivity of the country’s work force, improves access to health information which will increase life expectancy and, at the same time lower the fertility rate. Therefore, education is capable of enhancing the efficient production of goods and services by ensuring thorough screening that the best people are selected and made available for the world of research. Education in every sense is one of the fundamental factors of economic growth and development. Education enriches people’s understanding of themselves and world. It improves the quality of their lives and leads to broad social benefits to individuals and society. Education is a critical component of human development. High quality and market driven education is capable of offering a genuine solution to most economic problems ranging from poverty, unemployment, and population pressure. Education raises people’s productivity and creativity and promotes entrepreneurship and technological advances. In addition, it plays a very crucial role in securing economic and social progress and improving income distribution. The concept of human capital refers to the abilities and skills of human resources of a country, while human capital formation refers to the process of acquiring and increasing the number of persons who have the skills, education and experience that are critical for economic growth and development of a country (Okojie 1995). Human resources are all embracing, that is, it is inclusive of persons who works now, or are likely to be productively employed sooner or later. It is a continuum, a continuing process from childhood to old age, and a must for any society or enterprise that wishes to survive under the complex challenges of a dynamic world. Yesufu (2000), in agreement with this view, opines that “the essence of human resources development becomes one of ensuring that the workforce is continuously adapted for, and upgraded to meet, the new challenges of its total environment”. This implies that those already on the job require retraining, reorientation or adaptation to meet the new challenges. This special human capacity can be acquired and developed through education, training, health promotion, as well as investment in all social services that influence man’s productive capacities (Adamu, 2003) In human capital development, education is essential. Education is concerned with the cultivation of “the whole person” including intellectual, character and psychomotor development. It is the human resources of any nation, rather than its physical capital and material resources, which ultimately determine the character and pace of its economic and social development. The role of education as a component of human capital formation for economic growth and development cannot be over-emphasized. Education matters, not only for personal development, health status, social inclusion and labour market prospect of individual learners, but also for broader economic performance of countries (OECD, 2006). Daudu (2010) asserts that education is basic to development and also regarded as the only instrument through which the society can be transformed. Education equips human resources with the needed knowledge, skills and competencies, which would make them
functional, and contribute to the all-round development of the nation. It does not only help to supply the essential human capital which is a necessary condition for sustained economic growth but it is a key to poverty reduction and vehicle for promoting equity fairness and social justice. No country can achieve sustainable economic development without substantial investment in human capital. Base on this assertion, educational investment has remained a fundamental integral of human capital development due to its potential to contribute positively and significantly to economic growth of a nation. In an effort to increase their share of public resources spent on education, the current national plan in Nigeria proffers ten percent of the total budgetary allocation as benchmark investment expenditure in education. As increase in educational investment generates increase in school enrolment which provides basis for human capital formation as an essential ingredient for economic growth. In support of this position, Barro et al (1994) and Akinlo (2004) used school enrolments as proxy for human capital formation in their studies. However, despite the government investment in education, the educational sector in Nigeria is beclouded by uncertainties. Most schools in Nigeria are characterized by overcrowding, poor sanitation, poor management, low students-teachers’ ratio, poor teachers’ remunerations and welfare packages. Other features are to include abandoned capital projects, inadequate funding, poor condition of service and others, (FRN, 2000). The resultant effects of these myriads of anomalies are production of half baked graduates, unsatisfied yearnings and aspirations, corruption of different kinds, bribery of varying nature and so on. The obvious poor performance in Nigerian education sector in spite of, the government spending on education has resulted in low capacity to develop human capital and this has retarded economic growth and development over the years. In line with this, Thomas (2001) observed that developing countries have increased their share of public resources spent on education over the past two decades and that comparisons across countries revealed little relationship between public spending on education and the outcomes. Therefore, based on this observation, this study has to be carried out as an attempt to complement the past efforts in literature to investigate the relationship between human capital development in education and economic growth in Nigeria over the covered periods of 1980-2011. The paper is presented as follows; the introductory section is followed by the literature review and theoretical framework; the next section presents the methodology of the study; while section four is for data analysis and discussion of result. In section five, policy recommendations are made and section six concludes the paper.

2. LITERATURE REVIEW
The theoretical basis of investment in education on economic growth is rooted in the endogenous growth theory which is developed by Arrow (1962), Romer (1986) and Lucas (1988) among others. Endogenous growth theory advocates the stimulation of economic growth and development through improvement in human capital using policies aim at increasing expenditure on education. In recent development, Gupta and Chakraborty (2004) develop an endogenous growth model of dual economy where human capital accumulation is a source of economic growth. They argued that the duality between the rich individuals exist in the mechanism of human capital accumulation. Rich individuals allocate labour time not only for their own production and knowledge accumulation but also train the poor individuals. In a different dimension, Brattier(’al (2004) estimated a model of economic growth and human capital accumulation based on a sample of countries at different stage of development. Their result revealed that the increase in the primary and secondary level of education contributes to an increase in productivity. They posit that human capital accumulation rates are affected by demographic variables. For example, they established that an increase in life expectancy at birth brings about an increase in secondary and tertiary education while a decrease in juvenile dependence rate negatively affects secondary education. Endogenous growth economist believed that improvement in the rate of investment, the size of the capital stock and the stock of human capital are pivotal to economic growth through productivity. That is why Becker (1964) summarized the theory of human capital into five main postulates: (i) The existence of a relation between the society investments in education and economic growth; (ii)The existence of a relation between individual investments in education and the economic profitability of this investments (iii)The existence of relations between the distribution of investment in education within the population and the distribution of the subsequent benefits (iv)The demand for education as a response to investment. (v) The investment in the training and the financial division between the workers and the firm. Education is then viewed as an investment, in so far as it is similar to an instrument for the improvement of productivity and increase of earnings (Kamanzi, 2006). This economic conception of education is based on two postulates taken up by Forquin (1997): (1) In an industrial society, the proportion of employments which requires a low level of ability diminishes while that requiring a high level of ability increases. (2)The level of education required for the exercise of jobs increases because the same employments require more abilities. These different postulates show that there exists a positive relation between the accumulated training and incomes. The expenditures in the education sector constitute an investment, in as much as they provide to the individuals the possibility of acquiring knowledge susceptible to prepare them for the productive sector. The justification for higher government expenditure on human capital development is often based on its impact on (a) individuals lifetime income (b) economic growth and (c)
fostering economic development and poverty reduction in general. Knowledge plays a central role as a determinant of economic growth. However, the effect of low investment in human capital as noted by Lawson and marimathu (2009), raises a number of concerns for various organizations and research institutions. For instance, Bakare (2006) noted that poor investment in human capital in Nigeria has been found to be consistent with a higher level of illiteracy and a low rate of economic growth. Another area of concern as identified by Sanusi (2003) is the effect of low investment in human capital on the competitiveness of Nigerian labour force in the production of goods and services, bearing in mind the fact that low level of skills and knowledge will certainly reduce the quantity and quality of individual output. In explaining the contribution of the production factors such as the financial capital and the labour force to the economic growth in the United States Schultz (1963) and Dension (1962) discovered the existence of a residual which they attribute to the level of education of the workers. Empirical investigations from various researchers have revealed that adequate investment in human capital serves as catalyst for improved productivity and economic growth. Ayanwu and Erhijakpor, (2007); Baladacci et al.(2008) find a positive association between education spending and economic growth. Galbrath (1964) examines the impacts of education on the growth of the United States economy between 1929 and 1957 using an ordinary least square technique. He discovered that education and other improvement on labour contributed 1.25% per annum to the growth rate of the economy. Loening (2002) investigates the impact of human capital on economic growth in Guatemala through the application of an error correction methodology. He examined two different channels by which human capital is expected to influence growth. The result from his study revealed that a better-educated labour force appears to have a positive and significant impact on economic growth both via factor accumulation as well as on the evolution of total factor productivity. In a cross-sectional study, Barro and Sala-i-Martin (1992) found that male educational attainment, particularly secondary and tertiary education, had significant positive growth effects. An increase in average male secondary schooling of 0.68 years raises annual GDP growth by 1.1 percentage points, while an increase in tertiary education of 0.09 years raises annual GDP growth by 0.5 percentage points. They find an interaction between initial GDP and human capital, so that countries that lag behind tend to grow faster if they have high levels of human capital. Musibau and Rasak (2005) investigate the long-run relationship between education and economic growth in Nigeria through the application of the Johansens Co-integration techniques. Their result revealed that there are 2 cointegrating equations at 5 percent level among the series in the model. This shows that there is a long-run relationship between education and economic growth in Nigeria. They also find 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. The long-run elasticity of human capital in the model where human capital affects the technology parameter is 0.135 while that of capital is 0.483 percent. Dauda (2010) examined the effect of investment spending in education on economic growth in Nigeria using thirty-one (31) years time series data from 1977 to 2007. The study employs cointegration and error correction techniques. The result revealed a positive and significant effect of educational expenditure on economic growth. Dauda (2009) carried out an empirical investigation on the relationship between investment in education and economic growth in Nigeria, using annual time series data from 1977 to 2007. The paper employs Johansen co-integration technique and error correction methodology. Empirical results indicate that there is, indeed a long-run relationship between investment in education and economic growth. All the variables used including gross fixed capital formation and educational capital are statistically significant (except labour force) in the Nigerian economy. The findings have a strong implication on educational policy in Nigeria. The study seems to suggest that a concerted effort should be made by policy makers to encourage increase in educational investment in order to accelerate growth which would engender economic development. Loening (2002) investigates the impact of human capital on economic growth in Guatemala through the application of an error correction methodology. He examines two different channels by which human capital is expected to influence growth. The result from his study revealed that a better-educated labour force appears to have a positive and significant impact on economic growth both via factor accumulation as well as on the evolution of total factor productivity. Babatunde and Adefabi (2005) investigate the long run relationship between education and economic growth in Nigeria from 1970 and 2003 through the application of Johansen Co-integration technique and vector error correction methodology (VECM). The paper examines two different channels through which human capital can affect long run economic growth in Nigeria. The first channel is when human capital is a direct input in the production function and the second channel is when the human capital affects the technology parameter. The Johansen Co-integration result establishes a long run relationship between education and economic growth while the VECM results reveal that human capital has a positive effect on productivity growth in Nigeria. Narayan (2006) in his study reported that empirical exercises on the effect of government spending which distinguish between government consumption and government capital accumulation suggest that government capital stock has a positive impact on productivity growth and that government spending had a positive and highly significant impact on output growth rates. An increase in current expenditure has positive and statistically significant growth effects. Folster and Henrekson (2000) find that government consumption
spending is growth retarding but spending on education impacts positively on growth. Kneller et al (2001) find that productive spending has a positive, while non productive spending has a negative impact on growth of OECD countries (1970-95). Moreover, there are other mixed results and results of those who could not establish a relationship between education expenditure and economic growth in the literature. Ararat (2007) analyses the role and impact of education on economic growth in the two largest economies of the former Soviet Bloc, namely, the Russian Federation and Ukraine. The study attempts to estimate the significance of different educational levels, including secondary and tertiary education, for initiating substantial economic growth that now takes place in the two countries. This study estimates the model of endogenous economic growth and the system of linear and log-linear equations that account for different time lags in the possible impact of higher education on economic growth. The model estimation shows that there is no significant impact of educational attainment on economic growth. The results from the system equations indicate that an increase in access of population to higher education brings positive results for the per capita GDP growth in the long term. Nurudeen and Usman (2010) carried out a disaggregated analysis on government expenditure and economic growth in Nigeria. Their analysis concluded that there was no significant relationship between expenditure on education and economic growth in Nigeria. However they suggested that government should increase expenditure in the educational sector since it would increase productivity and economic growth. Ndiyo (2002) on the “Paradox of education and Economic Growth in Nigeria” modelled for contribution of education growth. He considered real growth of the gross domestic product (RGDP) as respondent variable and gross fixed capital formation (GFCT), aggregate labour force (LAF) and real budget allocation to education (REDUB) as explanatory variables. He observes that contrary to a priori expectations, the estimate for the impact of growth in educational capital on the growth of real GDP was consistently negative. Haouas and Yagoubi (2005) examine openness and human capital as sources of productivity growth for MENA countries. Controlling for fixed effects as well as endogeneity in the model, they found that while human capital significantly influence growth, it has no underlying effect on productivity growth.

3. Methodology

The standard methodology of growth studies begin with the neoclassical (Solow) production function. The neoclassical growth theory posits that changes in quantities of factors of production account for growth. (Solow 1957; Khan, 1997; Iyoha 2000).

Considering the production function of this form;

\[ Y_t = f(A, K_t, L_t) \]

Where: \( Y = \) Aggregate real output  
\( K = \) Physical stock of capital  
\( L = \) Quantity of Labour  
\( A = \) Level of technology (efficiency parameter)  
\( t = \) Time Dimension

If we differentiate equation (1) above with respect to time and divided by \( Y \) and rearrange the terms, then we obtain;

\[ \frac{Y}{Y} = \frac{A}{A} + \frac{FK}{K/Y}(K/K) + \frac{FL}{L/Y}(L/L) \] ……………………(2)

Where; \( Y/Y \) - rate of growth output  
\( K/K \) - Rate of growth of capital  
\( L/L \) - Rate of growth of labour  
\( FK, FL \) - Social marginal product of capital and labour respectively  
\( A/A \) - Hicks neutral state of change of technological process

Following the empirical work of Mankiw et al., (1992); and Odusola (1998), the augmented Solow model is presented thus;

\[ Y_t = A(t) K_{a1} L_{a2} H_{a1} \] …………………………………………(3)

Where \( H \) is human capital, \( a_1 + a_2 + a_3 = 1 \) (assuming constant return to scale) other variables are as defined earlier. In line with these studies, the empirical model adopted in this study is presented thus;

\[ RGDP = f(EDU, ENRL, RCI) \] ………………………………..(4)

Where: \( RGDP \) –The growth rate of real gross domestic product  
\( EDU \) - Total expenditure on education  
\( ENRL \) -Total school enrolment ratio (following Ohwofasa et al, (2012) as the addition of primary, secondary and tertiary school enrolment ratios)  
\( RCI \) - Real Capital Investment (as proxy for physical capital)  
\( f \) - The functional relationship

From the foregoing, the estimated model is given as;

\[ RGDP = \alpha_0 + \alpha_1 EDU + \alpha_2 ENRL + \alpha_3 RCI + U \] ………… (5)

Where; \( \alpha_1, \alpha_2 \) and \( \alpha_3 \) are the parameters to be estimated; \( U \) – The stochastic error term (Random disturbances).
This study adopts the co-integration and error correction model (ECM) techniques to estimate the relationship between public expenditure on education and economic growth in Nigeria. Unit root test was also conducted on all the variables in order to ascertain whether the variables are stationary or not and if stationary to determine the order of their integration using the Augmented Dickey Fuller (ADF) test.

4. Results and Discussion

4.1 Unit Root Test Results

The unit root test is conducted on all the variables purposely to determine whether the variables were stationary or not and determine the order of integration (the stationary level) using the Augmented Dickey-Fuller (ADF) test. The table below shows the unit root test result.

**Table 4.1: ADF Unit Root Test Results**

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>ADF STATISTIC</th>
<th>5% CRITICAL VALUE</th>
<th>ORDER OF INTEGRATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>RGDP</td>
<td>-3.406866</td>
<td>-2.9716</td>
<td>I(1)</td>
</tr>
<tr>
<td>EDU</td>
<td>-3.221513</td>
<td>-2.9716</td>
<td>I(1)</td>
</tr>
<tr>
<td>ENRL</td>
<td>-3.645876</td>
<td>-2.9716</td>
<td>I(1)</td>
</tr>
<tr>
<td>FCI</td>
<td>-3.828170</td>
<td>-2.9716</td>
<td>I(1)</td>
</tr>
</tbody>
</table>

Source: Author’s computation, 2013.

Table 4.1 shows the Augmented Dickey-Fuller test results. The result reveals that none of the variables was stationary at level. However, to attain stationary level, all the variables were differenced once and were stationary at first difference. This means that the variables contained a unit root since they were all stationary at the same level.

4.2 Co-Integration Test

The results emanating from the root test conducted indicate that the variable were not stationary at level but at first difference. This implies that parameter estimates using Ordinary Least Square (OLS) regression may produce spurious regression coefficient and thus be misleading (Granger and Newbold 1977). To determine the number of co-integration vectors, we make use of the maximum Eigen value test.

**Table 4.2 Johansen Co-integration Test Results**

<table>
<thead>
<tr>
<th>EIGEN VALUE</th>
<th>LIKELIHOOD RATIO</th>
<th>5% CRITICAL VALUE</th>
<th>HYPOTHEZIZED NO. OF CE(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.790508</td>
<td>65.76138</td>
<td>47.22</td>
<td>None</td>
</tr>
<tr>
<td>0.396314</td>
<td>21.79369</td>
<td>29.67</td>
<td>At most 1</td>
</tr>
<tr>
<td>0.152704</td>
<td>7.206363</td>
<td>15.42</td>
<td>At most 2</td>
</tr>
<tr>
<td>0.79349</td>
<td>2.397514</td>
<td>3.77</td>
<td>At most 3</td>
</tr>
</tbody>
</table>

Source: Author’s computation, 2013.

The long run test indicates one co-integrating equation at 5% significance level. The existence of this co-integrating equation implies that the variables have tendencies and capability to move together and establish or maintain a long run equilibrium relationship. The normalized co-integrating coefficient with highest log-likelihood ratio (in absolute term) is chosen as the long run equilibrium equation and is presented below:

\[ RGDP = 3879900 + 0.068837EDU – 0.057649ENRL – 0.008559RCI \]

The equation above represents the long run equilibrium equation and shows that only total public expenditure on education (EDU) remains consistent with a priori expectation and maintained a positive long run equilibrium relationship with the growth rate of real gross domestic product (RGDP), while total school enrolment ratio (ENRL) and Real Capital Investment (RCI) reflect a negative long run relationship with the growth rate of real gross domestic product (RGDP).

It follows therefore, that a percentage change in (EDU) pushed up (RGDP) by 6.883% in the long run. On the contrary, a percentage change in (ENRL) and (RCI) led to 5.76% and 0.85% unit decreases in (RGDP) respectively.

**Table 4.3 Error Correction Model Results (Parsimonious)**

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>COEFFICIENT</th>
<th>STD. ERROR</th>
<th>T. STAT.</th>
<th>PROB.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>2.436498</td>
<td>4145736</td>
<td>0.589612</td>
<td>0.5541</td>
</tr>
<tr>
<td>D(RGDP(-1))</td>
<td>0.195515</td>
<td>0.226967</td>
<td>0.884086</td>
<td>0.3836</td>
</tr>
<tr>
<td>D(EDU)</td>
<td>-0.000137</td>
<td>0.000747</td>
<td>-0.185695</td>
<td>0.8490</td>
</tr>
<tr>
<td>D(EDU(-1))</td>
<td>-2.03E-05</td>
<td>0.000000</td>
<td>-0.038291</td>
<td>0.9807</td>
</tr>
<tr>
<td>D(ENRL)</td>
<td>5.87E-05</td>
<td>0.000708</td>
<td>0.098701</td>
<td>0.9340</td>
</tr>
<tr>
<td>D(RCRI)</td>
<td>1.42E-05</td>
<td>0.000440</td>
<td>0.033618</td>
<td>0.9836</td>
</tr>
<tr>
<td>D(RCRI(-1))</td>
<td>2.22E-05</td>
<td>0.000126</td>
<td>0.162893</td>
<td>0.8742</td>
</tr>
<tr>
<td>D(REC(-1))</td>
<td>-2.18E-05</td>
<td>0.000181</td>
<td>-0.128039</td>
<td>0.9023</td>
</tr>
<tr>
<td>ECM(-1)</td>
<td>-0.273851</td>
<td>0.149790</td>
<td>-0.866790</td>
<td>0.0776</td>
</tr>
</tbody>
</table>

R-square: 0.723434

Durbin-Watson Stat.: 2.028285

Source: Author’s Computation, 2013.
The table above presents the ECM result, the result obviously shows that the ECM coefficient is correctly signed (negative as expected) given as -0.273851 implying that it will take almost five periods to correct the disequilibrium precisely, about 27% of the disequilibrium could be corrected in each one period. The ECM coefficient is also significant as evident by its probability value given as 0.0776 less than 10% conventional level for significance. Also, the r-square of the model was 0.723434 implying that 72.3% of the systematic and dynamic variation in the real rate of growth of gross domestic product was explained by the explanatory variables and their lagged values included in the model. The analysis of the long run test reveals that only total public expenditure on education (EDU) maintains a long run positive relationship with the growth rate of real gross domestic product (RGDP). Although, this is a good performance in terms of a priori expectation as it is a positive value and it implies that changes in total public expenditure on education will generate increase in the growth rate of real gross domestic product which by extension spur economic growth. This result is in line with previous empirical findings of Huyanwu and Erhijakpor, (2007); Baladacci et al,(2008) who found a positive association between education spending and economic growth. However, it is worthy of note here that despite this result conformed to the a priori expectation; it reflected a relatively low magnitude than would have otherwise been expected. Oni, L. B., (2012) observed that government expenditure on education does not yield the expected result probably because the financial outlay on education is not appropriately utilized or not directed to the appropriate quarters. In addition, this result could also be attributed to a host of other factors such as decay in most of Nigerian tertiary institutions, incessant strike actions and disruption of academic activities, poor infrastructural development and inadequate funding in this sub-sector of the economy. For instance, according to Aigbokan et al, (2007) who noted that the characteristics pattern of the government allocation to education in Nigeria as a percentage of total budget revealed inconsistency and that education was not considered as policy target in the overall budgeting or else, it would have maintained an increasing proportion of the yearly budget of the nation. It would be recalled that the UN international recommended standard for allocation to education sector as 26% of the annual budget in which Nigeria has not for once exceeded 10%. Meanwhile, the result recorded by the relationship between ENRL and RGDP which was found to be negative which reveals that the Nigerian educational system is faulty especially in terms of the quality of its outcomes. This finding is consistent with Olukemi (2009) and Arewo (2009) and this could be a threat to the future growth rate of the real gross domestic product in particular and economic growth at large. Imougele et al. (2012) noted that despite the tremendous progress increase in public expenditure, enrolment and increasing years of schooling since 1980, Nigeria is yet to benefit from such development in terms of increase in economic growth. This is somehow worrisome. This result is also in agreement with Ohwofasa et al (2012), who have also conducted a similar study and found the same result. The result is a gross deviation from the expectation. This could be partly due to a number of factors such as inadequate instructional materials and other educational facilities, half-baked teachers, poor student- teacher ratio, congestions in classrooms, poor remuneration to teachers, educational instability due to incessant teachers’ strike, low students performance due to poor mental health and nutrition, student distractions and poor reading culture. The effect of which cumulates into producing half-baked graduates from the school system to form a team of incompetent labour force who could not contribute meaningfully to induce economic growth and development in Nigeria. The potency of the school enrolment in stimulation economic growth in Nigeria could also be challenged by the poor attitudes of Nigerians particularly from the northern parts and some rural parts of the south in enrolling their children in schools largely due to poverty and ignorance. Poor families tend to invest their limited resources into things that they feel are meant for immediate consumption rather than a long term investment like child education. The alarming rate of inflation in Nigeria has affected parents’ income and weakens their abilities to enrol their children in school (Oni, L. B., 2012). In addition, in few years back, some terrorists called Boko Haram sprang up in Nigeria to condemn western education in a bid to discourage families from enrolling their children in school. This is believed to be born out of ignorance. Another area of concern from the results of the study is that the real capital investment (RCI) also recorded negative value. In line with the principle of economic theories, the accumulation of the stock of physical capital is supposed to serve as a complimentary factor to human capital to spur growth. According to Harrod-Domar model, if there is a high level of saving in a country, it provides funds for firms to borrow and invest. Investment can increase the capital stock of an economy and generate economic growth through the increase in production of goods and services. But the Nigerian case according to the result of this study is contrary. The reason for this may be partly due to the fact that Nigeria has not been able to accumulate sufficient stock of capital that could have propelled growth. This is because Nigeria is characterized by low savings, poor investment drive, massive importations, uncontrollable capital flight and high level of corruptions in high places.

5. Conclusion and Recommendation

5.1 Conclusion

The result of this empirical findings, shows that there is a clear-cut relationship between public expenditure on education and economic growth but the contributions of public spending on education to economic growth has
been less than satisfactory in Nigeria. The reason being that two out of the three explanatory variables (ENRL and RCI) used in the study reveal a negative relationship with the dependent variable which is contrary to the “a priori expectations” while the only positive explanatory variable (EDU) has a very low magnitude which implies little contribution to economic growth in Nigeria.

5.2 Recommendations

Considering the conclusion that public expenditure on education enhances economic growth but the evidence from empirical findings reveals that Nigeria is yet to benefit fully from it. Therefore, government should increase not just the amount of expenditure on education sector but also the percentage of its total expenditure accorded this sector. The ten percent benchmark proffered by the current national plan document as contained in National Economic Empowerment and Development Strategy (NEEDS) should be geared up and gravitate towards the UNESCO 26% international recommended standard. Better infrastructural facilities should also be provided for existing schools while new structured training institutions should be established to provide quality education and training so as to improve the skills of the Nigerian labour force. There is also the need for investment in health and nutrition. Adequate investment in the sector will improve educational outcome and induce the nation economic growth. It is also necessary that Government educational policies that support provision of instructional facilities are induced in the country. The Universal Basic education policies should be enforced in every part of Nigeria and adequately funded by providing modern instructional materials to primary schools so as to build a solid foundation for the educational system. Funds meant for the development of the education sector have not been properly utilized and in most cases embezzled, thus precipitating the incessant strike by Academic Staff Union of Universities (ASUU) and National Union of Teacher (NUT). Adequate control mechanism should be put in place by the government to minimize corrupt practices and penalize those who divert and embezzle public education funds. Finally, more stock of physical capital should be accumulated so as to finance more investment in education and thereby enhancing economic growth and development in Nigeria.

References


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