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**Causality between Human Resource Development and the Nigerian Economic
Performance**

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ABSTRACT

This study provides an empirical insight into the relationship between human resource development through education and the Nigerian economic furtherance. In developed countries, the increased access to quality education especially the basic education on which an individual's educational knowledge is premised is a fundamental goal of the government. However, in the Nigerian economy, uncertainty has clouded out the sector's performance both in real and nominal terms. The study examined the causal relationship between human resource development proxied by total government expenditure on education and the Nigerian labour force on the Nigerian economic performance (GDP). The granger causality test was used in ascertaining the relationship that exist between the 4 variables selected for the model within the time period of 1981 to 2014. The ordinary least square technique was employed in estimating the equations and it was found that Human Resource Development proxied as Total Government Expenditure on Education had a negative effect on the Nigerian economic performance. The findings deduced from the error correction mechanism showed that 36% of the error in the long run relationship was corrected in one time period. The paper therefore concludes that Labour granger causes Total Government Expenditure on Education while Total Government Expenditure on Education does not granger cause the Labour force connoting a unidirectional relationship between the variables. Also on the economic performance, an independent relationship exists between the Total Government Expenditure on Education and the Real Gross Domestic Product meaning that the two variables in question do not granger cause each other which can therefore be inferred that human resource development and economic performance do not have statistically significant information to predict each other's future values.

Keywords: Economic Growth; Human Resource Development; Human Capital; Total Government Expenditure on Education, Economic Development.

JEL CLASSIFICATION: I25, I26, J01

1. Introduction

The determinant of a nation's economic furtherance hinges on the prowess of her human resource. The development of human resource was not seen as an issue in time past and this was based on the fact that it was only attributed to the industrialized economies. After the different attempts at development failed in Nigeria, renewed attention was then directed towards developing the human resource and not only natural resources that are passive.

Eduwen (1999) asserts that, education is the process of acquisition of knowledge, that is, it involves the teaching and learning process. Investment in education at all levels benefits the Nigerian economy both at the micro and macro levels and affects the Nigerian system. As an important factor in transition programme, education equips human resources with the needed knowledge, skills and competencies, which would make them functional, and contribute to the all-round development of a nation. It does not only help to supply the essential human capital which is a necessary condition for sustainable economic growth but it is also a key to poverty reduction and a major vehicle for promoting equity, fairness and social justice (Todaro, 2007).

Human resource plays a crucial role in the development of an economy as Syrian de Silva (1997) posits that the importance of human resource is obvious as one considers this factor in any economic activity as it is the element that commands, directs, controls and manages the other resources in the production process or at the economic level. According to Harbinson (1973), "human being are the active agents who accumulate capital, exploit natural resources, build social, economic and political organization and carry forward national development.

Nigeria has the potential to build a prosperous economy, reduce poverty, increase health provision, improve education, provide infrastructures and other population needs but the human resource present in the economy have to be given the right orientation or mindset

through education before all the benefits that accrue to a developed human resource mentioned above can come to be. The basic importance of education is to acquire knowledge and the ability to apply that knowledge which makes education to be a direct avenue to rescue a substantial number of people out of poverty since there is likely to be more employment opportunities and higher wages for skilled workers (Akinremi, 2009). The notion of identifying a problem as the first step to solving it is vital as a problem identified is half solved. On that note it would be imperative to say that the Nigerian economy has been besieged with several economic and social problems which are not meant to be due to the immense natural and human resource at our disposal. Education received by most Nigerians is not up to the standard (Okoli, 2015).

This research study therefore wishes to address Nigeria's failure to develop its human resource up to an optimal state in an attempt to amass monetary wealth as Badiru (2001) argues that skilled human resource is the cornerstone of national development and this therefore brings a question of what relationship exists between educational development of human resource and the Nigerian economic performance?. Problems also included in the educational sector is the pricing of education, this particular problem when looked at closely has caused a large number of individuals that are willing to opt for educational services to default due to their inability to effectively demand for the service.

According to the United Nations Development Programme (UNDP 2005; 24), gaps in opportunity for education remains large. It was noted that about 115 million children worldwide are denied the most basic primary education in an increasingly knowledge-based global economy. Most of these children that have been deprived educational services come from sub Saharan African countries and south Asian countries. While the primary enrolment gap may be closing, the gap between the rich and poor countries measured in terms of average

years of education is widening. This is before taking into account the differences in educational quality.

Aighokan et al (2005) observed that the period 1978-1999 was a crisis period in the education sector in Nigeria and this was traced to inadequate funding. It was observed that in the establishment of new educational institutions, sound investment criteria were not followed; instead determining factors such as regional balance, ethnicity, and nepotism and opportunity for personal gains were used as criteria (Awopegba & Adedeji 2000).

Corruption also exist in the education sector of the economy as it is found out that revenue allocated to the education sector gets embezzled. In developing countries corruption occurs in universities (Heyneman, et al. 2008). These corrupt practices include plagiarism, doctoring of academic records and falsification of research results, examination malpractices and bribes offered either to teaching or non-teaching staffs to bypass procedures or for higher grades. Willingness to get engaged in such corrupt practices decreases if individuals perceive such behavior as very objectionable that is a violation of social norm and if they fear transactions in terms of the severity and probability of sanction (Graeff, 2014).

One issue that remains a bone of contention is the government's provision in the optimal quantity and quality for the education sector. For instance, the secondary school enrolment ratio in 2007 was at 101 percent for high income countries, 38 percent for less developed countries. But at that Nigeria's secondary school gross enrolment rate stood at 32 percent which was 6 percent below the average for less developed countries (World Development Indicators, 2011). The nature of education, the economic system and government priority are factors that would influence its level in any economy.

Another problem that the educational sector is plagued by can be attributed to the attention given to education by the Nigerian governments when critically looked at is relatively low. Even many years after independence, it is stunning to know that the adult illiteracy rate is

still at 74% and the gross enrollment rate is also low (Ibidapo-Obe, 2007). According to the data by Herbert (2002) between the period of 1977-1998, the total education budget represented an average of 9.7% of total government expenditures, while its percentage share of the GDP from 1991-2009 has maintained a value of 0.85%. Its highest value was 5.11 % in 1981 and its lowest was 0.85% in 1991 (UNESCO, 2011). Examining the statistics above, it is established that expenditure on education is still below expectation.

Another pertinent issue in the Nigerian educational sector is that of teacher education. The basic problems reported by surveys carried out in various research in Nigeria have shown the discrepancy between the demand for teachers and the supply for teachers, and that teachers fail to meet the minimum requirement as stated by the National Policy for Education. This is due to lack of incentives, brain-drain and lack of motivation (Ibidapo-Obe, 2007). Henry et al (2008) noted that globalization has led to the reframing of educational policies and this explains the increase in tuition fee which often results in riots leading to cancellation of semesters. Industrial actions by the University Staff requesting for higher salaries and better working conditions also compound the situations. According to Okoli (2015), it is seen that no university in Nigeria has been ranked as meeting international standards and this makes it evident as the center of the nation's growth "the Education system" no longer holds value; hence the nation is really paying for this.

It is also important to note that products of the Nigeria education system are sometimes not employable due to corruption mindset existing in the so called developed human resource causing massive unemployment and under-development in the country. No survival skills inherent in the so called developed human resource as the present teachers and students need the exceptional problem-solving skills, ability to do several things at the same time and a lack of this is seriously leading to increased poverty rate in the country (Okoli, 2015). Problems also lie in the hands of the guardians or sponsors who don't allow their wards to effectively make

choices of what course or area to be specialized while receiving education. Individuals when forcefully compelled to study a course that is not at heart would tend to waste resources expended (Oluwatoyin, 2015).

As a result of a study reviewed it was shown according to a member of the British Parliament, Mr. Iain Stewart, that there will be nearly 30,000 Nigerian students in the UK by 2015, and this accounts for seven per cent of the total UK university population and this makes a large amount of resources to be expended on education abroad due to the low standard of education present in the Nigerian economy and sometimes due to unbearable cost of education present in the Nigerian economy (Tony, 2012). Nigeria's problem such as unemployment, corruption, low incomes, degrading poverty, and inefficient governance can therefore be traced to human resource as they play the active role in orchestrating this entire act which then bring then brings up the question that what effect does human resource development have on Nigerian economic performance? The problem listed above won't get solved if the importance and implication of human resource is not fully stressed. For meaningful development to therefore exist in the educational sector; the government needs to re-address the issue of funding and the solution to the question of possible relevant policy frame works that can be deduced from the research findings would be researched. Private educational investors, teachers, Parents or guardians and students need a reorientation towards achieving the goals of education.

The objective of this research work is to investigate and analyze the causal relationship existing between human resource development and the Nigerian economic performance. In specifics the study seeks to analyze the casualty between education and human resource development on economic performance through the factors of total government expenditure on education, gross fixed capital formation and labour force saturation in Nigeria. The study covers the period from 1981-2014.

Investment in education results in the development of human capital, which has been described as a key determinant of the economic performance of Nigeria. The key argument behind this study is to ascertain the missing link in Nigeria's ability to harness and effectively utilize one of its rich endowments (human resource) for national development. The study would broaden the scope that past research framework on the topic in question has been based. Research work in the area of human resource development have left out investigated reasons as to why unemployment still exists even with the current quality of the stock of human capital present in the Nigerian economy.

The study is organized into five sections with this section containing the introduction. The review of related literature and theoretical framework and model specification are contained in sections two and three respectively. The fourth section contains the estimation framework, interpretation of results while the discussions, conclusion and policy recommendations are contained in section five.

2. Review of Related Literature

A plethora of the different theories by which economic growth can be stimulated and sustained have been discussed by growth theorists since the time of Adam Smith. However, the fundamental model has not lost its savor. The different theories have therefore been variations on a theme at least on the basic factors; land, labour, and capital (generally constructed as physical capital). Some of these theories include the Neo-classical, the Endogenous growth theory and the growth induced by human capital formation theory. Disagreement that has therefore ensued on this fundamental growth theory has been based on resolving what the most efficient uses are and the arrangement of these factors of production and by who they should be controlled (Zipfel, 2004, Romer, 2007). The reviewed literature carried out research to ascertain the relationship between human resource development or human capital; education and economic performance or economic growth.

A study carried out by Chiawa et al. (2012) investigated the causal relationship between government expenditure and economic growth in Nigeria by using time series data between the periods of 1970 to 2008. The study realized that total expenditure does not cause the growth of gross domestic product (GDP) which is incompatible with the Keynesians theory but the growth of GDP does cause an increase in total public expenditure which is compatible with Wagner's law.

Adelakun (2011) conducted a study on human capital development and economic growth using the OLS technique. This evaluates the human capital using the GDP as proxy for economic growth; total government expenditure on education and the enrolment pattern of tertiary, secondary and primary schools as proxy for human capital. The result concluded that a positive relationship exists between government expenditure on education as well as pattern of enrolment in primary secondary, and tertiary institutions in engendering economic growth in the long run.

Nurudeen and Usman (2010) researched the disaggregated analysis on government expenditure against the economic growth of Nigeria specifying expenditure on education as the form of government expenditure. The result showed that no significant relationship existed between expenditure on education and economic growth in Nigeria. However, it was suggested that the Nigerian government should increase its expenditure that goes to the education sector even if it comes at the expense of a reduction in other aspect of investment as this would help to increase productivity, economic growth and ultimately economic development.

Dauda (2009) examined the relationship between investment in education and economic growth in Nigeria using annual time series data from the year 1977 to 2007. The paper made use of Johansen cointegration technique and error correction mechanism. The results showed that there is a long-run relationship between investment in education and economic growth. The growth rate of educational expenditure which is the main variable of

interest had positive and significant effect on economic growth in Nigeria. The result therefore stressed the fact that educational investment plays a vital role in developing an economy and it enhances growth in a nation's income. The growth coefficient of gross fixed capital formation has a positive and statistically significant effect on the Nigerian economy and in addition other variables used were statistically significant except labour force.

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 was analyzed by Ararat (2007). The study estimated 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 estimated the model of endogenous economic growth and the system of linear and log-linear equations that accounts for different time lags in the possible impact of higher education on economic growth. The result of the study showed that there is no significant impact of educational attainment on economic growth. The results from the system equations indicated that an increased access of the population to higher education brings positive results for the per capita GDP growth in the long run.

Bakare (2006) investigated the growth implications of human capital investment on Nigerian economic performance using the tool of vector autoregressive error corrections mechanism. The study showed that a significant functional and institutional relationship exist between the investments in human capital and economic growth in Nigeria. It was therefore discovered that a one percent fall in human capital investment led to a 48.1% fall in the rate of growth in gross domestic output between 1970 and 2000.

The Musibau and Rasak (2005) investigated the long run relationship between education and economic growth in Nigeria using the Johansen's cointegration techniques. The result observed that a long-run relationship exists between education and economic growth in Nigeria. It was also discovered through the study that a long-run effect of a one percent increase

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

A study was carried out by Babatunde and Adefabi (2005) to investigate the long run relationship on education expenditure and economic growth in Nigeria applied the Johansen cointegration techniques and vector error correction methodology. The result revealed that the Johansen cointegration technique result establishes a long run relationship between education and economic growth.

Chete and Adeoye (2003) investigated the nexus existing between human capital investment and economic growth in Nigeria. A number of methodological approaches were employed to examine the relationship. Specifically, test like the unit root test, Granger causality tests were carried out. The Result revealed that there was no conclusive position on the direction of causality specifically as shown in the Granger causality tests. The paper observed that a mismatch exist between the manpower needs of the country and the skills turned out by the educational system.

According to the study carried out by Uwatt (2003), provided an empirical evidence on the role of human resource development proxied by enrolment in educational institutions on economic growth in Nigeria, using the augmented Solow growth model and relying on cointegration test and the error-correction mechanism to measure the proportion of the deviation from a long run relationship that is corrected in one time period. The results showed that human resource development does not only contribute positively to economic growth in Nigeria, but its impact is strong and statistically significant. This result occurred despite the decline in the quality of education at all levels since the mid-1980s. Contrary to this conventional wisdom, Ayara's (2003) study observed that the growth of educational capital depicts a significant negative effect on economic growth in Nigeria. This is in line with the results to the studies by Pritchett (2001), Islam (1995) and Hoeffler (1999).

3. Theoretical Framework and Model Specification

In order to derive the model that is best for this study, the starting point would be the Solow growth model through the augmented Solow growth framework. Under the neo-classical growth model which simply states that changes in the factor of productions are responsible for economic growth and development (Solow 1956, 1957, Meade, 1961). The neo classical growth model is then used to depict the simplest way by which an economy would transform itself towards development (Hoeffler, 1997, Jhingan, 2003). Due to this the augmented Solow model of neo classical production function is used. Solow postulated a continuous production function that links output to input of capital and labour (Dornbusch, et al 2004). We therefore have the production function to be

$$Y = Af(K, L) \quad (1)$$

A representing the level of technology because a higher level of technology the more the output that would be produced for a given level of inputs. Since inputs (capital and labour alongside technological possibilities) determine output produced then the production function is represented as

$$Y_t = f(A_t, K_t, L_t) \quad (2)$$

Where Y is the aggregate real output, K is the stock of capital, L is labour, A is the efficiency factor and the time factor is also included. Differentiating equation 2 with respect to time, dividing by Y and rearranging the terms we have equation 3 to be

$$\left\{ \frac{\Delta Y}{Y} \right\} = \left\{ \frac{\Delta A}{A} \right\} + \left\{ F_K \frac{\Delta K}{Y} \right\} \left\{ \frac{K}{K} \right\} + \left\{ F_L \frac{\Delta L}{Y} \right\} \left\{ \frac{L}{L} \right\} \quad (3)$$

Where Y/K = growth rate of output;

K/K = Growth rate of capital;

L/L = Growth rate of labour force

$F_K F_L$ = Social marginal product of capital and labour respectively;

$\Delta A/A$ = Hicks neutral rate of change of technological progress.

The model in equation 3 therefore explains that an increase in national output can be experienced as a result of the accumulation of physical capital through an increase in labour force and improved technological progress. Human capital is therefore considered the major determinant influencing labour productivity as it absorbs new technology, promotes management efficiency in terms of resources and increases the rate of innovativeness (Jhingan, 2002, 2003 Adamu, 2003). For high labour productivity to be attained it is therefore imperative that investment in human capital which is termed an endogenous factor be attended to as accumulation of physical capital is made feasible by the skills, attitude, knowledge and health status of the people that partake in such exercise. A positive and strong relationship therefore exists between expending on education (investment in human capital) and output growth (Lucas, 1998, Schultz, 1992, Jhingan, 2002, 2003, Adamu, 2003, Chete and Adeoye, 2003). An integration of both exogenous and endogenous factors have been attempted by different studies (such as Romer (1990), Grammy and Assane (1996), Chete and Adeoye (2003) to mention a few) to explain economic growth using the augmented Solow growth model. The impact of human capital or expenditure on human resource development on economic performance as incorporated by Mankiw, Romer and Weil (1992) to validate the chosen data is presented as follows:

$$Y_{(t)} = K^{\alpha}_{(t)} H^{\beta}_{(t)} (A_{(t)} L_{(t)})^{1-\alpha-\beta} \quad (4)$$

Where Y = Output

K = Physical capital

H = Stock of human capital

L = labour force

A = Level of technology

$\alpha, \beta < 1$ depicting decreasing returns to capital invested.

In equation (4) both $(A_{(t)}L_{(t)})$ imply the effective unit of labour and as earlier said the equation exhibits decreasing returns to capital that is $\alpha + \beta < 1$.

Rewriting equation 4 in a log-linear functional form we have;

$$\text{Log } Y_{(t)} = \alpha \text{log}K_{(t)} + \beta \text{log}H_{(t)} + 1 - \alpha - \beta \text{log}(A_{(t)} L_{(t)}) \quad (5)$$

Model specification.

Based on both theoretical and empirical literature on the causality between government education expenditure and human resource development on Nigerian economic performance the following model is specified to evaluate the degree to which education expenditure by the government has been able to develop the human resource to engender growth in Nigeria.

The equation is therefore stated in linear form as;

$$\text{RGDP} = f(\text{TGED}, \text{GFCF}, \text{LABOUR}) \quad (6)$$

Where;

RGDP = Real gross domestic product as a proxy for economic performance

TGED = Total Government Expenditure on Education

GFCF = Gross fixed capital formation

LF = Labour force

μ = Error term

Mathematically we have;

$$\text{RGDP} = \alpha_0 + \text{TGED}^{\alpha_1} + \text{GFCF}^{\alpha_2} + \text{LF}^{\alpha_3} \quad (7)$$

Econometrically the above equation (7) can be written as;

$$\text{RGDP} = \alpha_0 + \text{TGED}^{\alpha_1} + \text{GFCF}^{\alpha_2} + \text{LF}^{\alpha_3} + \mu \quad (8)$$

Rewriting equation (6) in a log linear functional form we have that;

$$\text{InRGDP} = \alpha_0 + \alpha_1 \text{InTGED} + \alpha_2 \text{InGFCF} + \alpha_3 \text{InLF} + \mu \quad (9)$$

4. Discussion of Results

Unit root tests.

The idea and aim here is to test the variables selected if they are stationary or non-stationary and then determine their order of integration. The augmented dickey fuller test would be used to find the existence or non-existence of unit root. The result of the augmented dickey fuller is presented below;

Table 1: Summary of unit root tests and order of integration on variables used.

VARIABLES	LEVEL ADF	1 ST DIFFERENCE	RESULTS	INFERENCE
RGDP	1.760607	-4.247680 (-3.653730) * (-2.957110) ** (-2.617434) ***	I (1)	STATIONARY
LABOUR	-0.606002	-6.165833 (-3.653730) * (-2.957110) ** (-2.617434) ***	I (1)	STATIONARY
TGED	-1.694014	-4.169594 (-3.679322) * (-2.967767) ** (-2.622989) ***	I (1)	STATIONARY
GFCF	-0.252655	-3.094745 (-3.670170) * (-2.963972) ** (-2.621007) ***	I (1)	STATIONARY

Source: Author's compilation, 2016

Where critical values in parentheses indicates *= 1% ** =5% *** = 10%

Results gotten after the use of E-views 8 showed that RGDP, TGED, LABOUR and GFCF were not stationary at level. The evidence of the presence of non-stationary time series in all of the five variables stated above provides the basis to proceed by accepting the null hypothesis that the variable has unit root at level and sufficient reason for the variables (RGDP, TGED, GFCF and LABOUR) to be differenced once with the same augmented dickey fuller tests. The results therefore depict that TGED, RGDP, GFCF and LABOUR are stationary at 1st difference based on the augmented dickey fuller tests. Thus, the null hypothesis of non-stationarity is

rejected and the alternative hypothesis is accepted which implies and confirms the presence of stationarity on all variables to be integrated of order one.

Error Correction Mechanism Regression Results.

The Johansen cointegration analysis showed that there is a long run relationship amongst the variables but there may be disequilibrium in the short run analysis. The error correction mechanism is therefore a measure of the proportion of the deviation from a long run relationship that is corrected in one time period. It therefore looks at the proportion of the deviation in the long run that is corrected in one time period that is how long it takes for the short run to return back to the long run in case of any deviation

Table 2: Summary of error correction mechanism results

VARIABLES	Coefficient	Standard Error	T-Statistics	Probability
C	0.046390	0.030160	1.538141	0.1352
GFCF1	0.152067	0.053260	2.855193	0.0080
LABOUR1	-0.321604	1.135332	-0.283269	0.7791
TGED1	-0.005922	0.023358	-0.253517	0.8017
ECM	-0.358375	0.141373	-2.534955	0.0171

Source: Author's computation, 2016

The specified model is:

$$\Delta \log(RGDP) = \beta_0 + \beta_1 \Delta(\log TGED) + \beta_2 \Delta(\log GFCF) + \beta_3 \Delta(\log LABOUR) + \beta_4 ECM_{t-1} + \mu$$

Where β_{0-4} is the coefficient of the Cointegrating term.

Variables remain the same.

Considering the Error Correction Mechanism result, the 4 variables were estimated at their first difference. Looking at the coefficient of the residuals it therefore means that 36% of the error in the long run relationship is corrected in one time period.

Pairwise Granger Causality Test

The granger causality test is used to examine the causal relationship that exists between variables. It is used to ascertain the direction of causation between variables of interest and for determining whether a particular time series is useful in forecasting another time series.

The granger causality test was run for all variables and the standard of measurement for the granger causality is 0.05. That is if the probability is less than 0.05 the null hypothesis is rejected and where the F-Cal is less than the F-tab the null hypothesis is accepted.

The analysis to the granger causality is therefore presented below as;

Table 3: Result of causality tests.

S/N	Null Hypothesis.	Obs.	F-Stat	Probs	Decision Rule	Direction.
1	LABOUR does not Granger Cause GCFC	32	7.15114	0.0032	Reject	Bi-directional
	GCFC does not Granger Cause LABOUR		4.94991	0.0147	Reject	
2	RGDP does not Grange Cause GCFC	32	14.5395	0.00005	Reject	Unidirectional
	GCFC does not Granger Cause GDP		1.94636	0.1623	Accept	
3	TGED does not Granger Cause GFCF	32	5.40947	0.0106	Reject	Unidirectional
	GFCF does not Granger Cause TGED		0.84374	0.4411	Accept	
4	RGDP does not Granger Cause LABOUR	32	4.33301	0.0233	Reject	Bi-directional
	LABOUR does not Granger Cause RGDP		4.33081	0.0234	Reject	
5	TGED does not Granger Cause LABOUR	32	2.10490	0.1414	Accept	Unidirectional
	LABOUR does not Granger Cause TGED		6.14639	0.0063	Reject	
6	TGED does not Granger Cause RGDP	32	3.31613	0.0515	Accept	Independence
	RGDP does not Granger Cause TGED		0.21967	0.8042	Accept	

Source: Author's computation, 2016

Table 3 results revealed that the null hypothesis that Labour does not granger cause Gross Fixed Capital Formation is rejected and the same decision is made regarding the null

hypothesis that the Gross Fixed Capital Formation does not granger cause Labour meaning that we accept the alternative hypothesis that states that Labour actually granger causes Gross Fixed Capital Formation. From this interpretation it is deduced that a bi-directional relationship exists between Labour and Gross Fixed Capital Formation.

The null hypothesis of Labour not granger causing Gross Fixed Capital Formation is rejected meaning that Labour actually granger causes an increase in the Gross Fixed Capital Formation. The Real Gross Domestic product not granger causing Gross Fixed Capital Formation according to the null hypothesis is rejected and we then accept the null hypothesis by stating that the Real Gross Domestic product actually granger causes Gross Fixed Capital Formation while it is accepted that the Gross Fixed Capital Formation does not granger cause Real Gross Domestic product. A unidirectional causality exists here in this case.

The null hypothesis that Total Government Expenditure on Education does not granger cause Gross Fixed Capital Formation as the probability value is greater than 0.05 while the null hypothesis that Gross Fixed Capital Formation does not granger cause Total Government Expenditure on Education is also accepted due to high probability value. As it stands it is therefore inferred that independence exist between the variables.

The null hypothesis that the Real Gross Domestic Product does not granger cause Labour is rejected while the alternative hypothesis that Real Gross Domestic Product granger causes Labour is accepted and this is evident in theoretical terms. Likewise, the null hypothesis that Labour does not granger cause Real Gross Domestic Product is rejected and the alternative hypothesis is accepted based on the probability values that is less than 0.05. It is then deduced that a bilateral causality exists between Real Gross Domestic Product and Labour.

The null hypothesis that Total Government Expenditure on Education does not granger cause Labour is accepted and this is due to the presence of a probability value that is higher than 0.05 and this same decision goes for the null hypothesis that Labour does not granger

cause Total Government expenditure on education due to the existence of a probability value higher than 0.05. It is therefore inferred that no causal relationship, depicting independence between the variables.

The null hypothesis that Total Government Expenditure does not granger cause Real Gross domestic product is accepted due to a probability value that is higher than 0.05 while the same decision is made concerning Real Gross Domestic Product not granger causing Total Government Expenditure on Education as the probability value is also higher than 0.05. It is therefore inferred that independence exists between the variables in question that is no causal relationship among the two pair of variables

5. Conclusion and Policy Recommendations

The research work sought to establish the causality between Government education expenditure and human resource development on the Nigerian economic performance. The result of the investigation indicates that no relationship exists between expenditure on education made by the government and the Nigerian economic performance (RGDP). In terms of the Nigerian labour force and economic performance it can be said that a bilateral causality exist that is a two way relationship meaning that the values of Labour provides statistically significant information on future values of Real Gross Domestic Product and that the more developed the human resource of the Nigerian economy the better the performance of the economy in terms of its Real Gross Domestic Product. On the relationship that exist between Total Government Expenditure on Education and Labour, a unidirectional relationship was found to exist between Total Government Expenditure on Education and the Labour force. In other to therefore juxtapose the assertions on the causal relationship existing between the three factors we can therefore infer that Total Government Expenditure on Education does not have a causal relationship with labour but that a bi-causal relationship exist between Total

Government Expenditure on Education or human resource development and Nigerian Economic performance proxied as Real Gross Domestic Product which means that as the Nigerian government increases its Total expenditure on education to develop its human resource, the expenditure does not improve the economy in terms of Real Gross Domestic Product and also does not improve the human resource that is the Labour force as expected but Labour values have statistically significant information about future values of Total Government Expenditure on Education and that is the reason for the existence of a unidirectional causal relationship between the Total Government Expenditure on Education and Labour.

Policy Recommendations

Based on the empirical findings, it is pertinent that the Nigerian government increases its budgetary allocation to the education sector and the utilization of those funds disbursed for capital projects in the educational sector should be closely monitored especially in the aspect of procuring of goods, works and services to improve the sector. A strong and effective mechanism should be established that would give room for the poor to benefit from the expenditure on the part of enrolment of individuals into schools which is an expenditure to the Nigerian economy as its one of the expenditure on education as the poor constitute the majority in the Nigerian economy as this is one of the important factors necessary to improve the welfare of the people in order to attain a robust economy.

The private sector of the economy should be encouraged to further invest in human resource development. In addition, the Nigerian government should adopt a policy mix that would create the needed incentives for investors to perceive viability for such investments to see the light of day and to ultimately yield the expected returns.

References

- Aigbokhan, B.O, Imahe and M. I. Ailemen (2007). 'Education Expenditure and Human Capital Development in Nigeria: Any Correlation so far', Research Paper, Ambrose Alli University, Ekpoma, Nigeria.
- Anthonia, T.O. (2012). Education and economic growth in Nigeria. A comparative analytical approach.
- Ararat, O. (2007). Role of Education in Economic Growth in the Russian Federation and Ukraine
- Alaezi, O. (1990). The Nigerian New School Curriculum: Insights and Issues. Jos: Ehindero (Nig) Ltd, 256p.
- Awopegba, P. O (2009). Human resources, high level manpower and the development of the Nigeria economy.
- Barro, R. J. (1991). Economic growth in a cross section of countries. *Quarterly Journal of Economics*, 106(2), 407-443.
- Barro, R. J. (2001). International data on educational attainment: updates and implications. *Oxford Economic Papers*, 53 (3), 541-563.
- Bakare, A.S. (2006). The Growth Implications of Human Capital Investment in Nigeria: An Empirical Study. *Journal of Economics and Social Studies*, University of Ado-Ekiti
- Blaug, M. (1976). *An Introduction to the Economics of Education*. England: Penguin Books Ltd, 396p.
- Bowman, M.J. (1961). Human Capital: Concepts and Measures. In: *Money, Growth, and Methodology. Essays in Honor of John Akerman*, Lund, pp. 215-241.
- Chete, L. N. and Adeoye, B.W. (2003). Human Capital and Economic Growth: The Nigerian Evidence. In: *Human Resource Development in Africa*. Ibadan: Secretariat; The Nigerian Economic Society, pp. 79-102.

- Cortright, J. (2001). *New growth theory, technology, and learning: A practitioner's guide*. Reviews of Economic Development Literature and Practice. US Economic Development Administration.
- Dauda, R.O.S. (2009). *Investment in education and economic growth in Nigeria: A co-integration approach*. Paper presented at the 9th global conference on business and economics, university of Cambridge, Oct 16-17
- Elias, D.A. (2006). *Impact of investment in human resources on the transformation of Nigerian economy: focus on Nigerian university system*
- Fafunwa, A.B. (1974). *History of Education in Nigeria*. London: George Allen and Unwin, 234p.
- Granger, C. W. J. (1988), *Some Recent Developments in a Concept of Causality*. *Journal of Econometrics*, Vol 39, pp. 199-211
- Harbison, F. and Myers, C.A. (1964). *Education, Manpower, and Economic Growth: Strategies of Human Resources Development*. New York: McGraw - Hill Book Company Inc, 312p.
- Harbison, F.H. (1973). *Human Resources as The Wealth of Nations*. New York: Oxford University Press, 412p.
- Ibidapo-Obe, I. (2007). *The University of Lagos Experience For sub-theme: Teacher Education*. Paper presented at the Second Regional Research Seminar for Africa organized by the UNESCO Forum on Higher Education, Research and Knowledge in Accra, Ghana.
- ILO (2000). *Investment for Poverty Reducing Employment (IPRE) Studies*. Addis Ababa Processed 76p.
- Jhingan, M.L. (2000). *Macro-Economic Theory*. Delhi: Vrinda Publications (P) Ltd, 687p.
- Lawal, H & Wahab, T. (2011). *Education and Economic Growth: The Nigerian Experience*. *Journal of Emerging Trends in Economics and Management Sciences*, 5(3).

- Lucas, R. E. (1988). On the mechanics of economic development, *Journal of Monetary Economics*, 22, 3-42.
- Mankiw, G.D. Romer and D. Weil (1992) A contribution to the empirics of economic growth: *Quarterly journal of economics* 107, pp. 407 – 37.
- Meier, G.M. and Rauch, J.E. (2000). *Leading Issues in Economic Development*, Seventh Edition. New York: Oxford University Press, 578p.
- Meier, G.M. and Stiglitz, J.E. (eds., 2001). *Frontiers of Development Economics: The Future in Perspective*. Washington, D.C.: World Bank and Oxford University Press, 478p.
- Nurudeen, A. and Usman, A. (2010). Government expenditure and economic growth in Nigeria, 1970-2008: A disaggregated analysis. *Business and Economics Journal*, bej4
- Oduola, A.F (1998). Human capital Investment and the Empirics of economic Growth in Nigeria. *Proceedings of the Nigerian Economic society*. Ibadan: NES.
- Okojie, C. E. E. (1995). Human capital formation for productivity growth in Nigeria. *Nigerian Economic and Financial Review*: June, 44-5.
- Okoli, N.J (2015). The impact of fee increases on university student’s education in Nigeria.
- Oluwatoyin, A. (2015, May 7). Making a career. *The Nation*.
- Romer, P. M. (1990). Endogenous technological change. *Journal of Political Economy*, 98(5), S71-S102
- Schultz, T.P. (1994). *Human Capital and Economic Development*. Centre Discussion Paper No. 711 Yale University Economic Growth Centre: 1 - 32.
- Schultz, T. (1961). Investment in Human Capital. *American Economic Review*, 51 (1): 279 - 297.
- Schütt, F. (2003). The importance of human capital for economic growth. *Institute for World Economics and International Management. (IWIM)*, University of Bremen.
- Smith, A. (1937). *An inquiring into the nature and cause of the wealth of nation*, BookII:

- Solow, R. M. (1956). A contribution to the theory of economic growth. *Quarterly Journal of Economics*, 70(1), 69-94.
- Todaro, M.P. (2000). *Economic Development*, 7th edition New York: Longman.
- Tony, E. (2012, October 9). UNN students protest hike in fees. Vanguard.
- United Nations Development Programme, (1996). *Human Development Reports*. Oxford/New York: Oxford University Press, 386p.
- United Nations Development Programme. (2005). *Human Development Report 2005*. New York: Oxford University Press.
- Uwatt, B. (2002). Human Resource Development and economic growth in Nigeria, 1960 – 2000. Proceedings of the Nigerian economic society, Ibadan, NES.
- World Bank, (1993). *The East Asian Miracle, Economic Growth and Public Policy*. Washington, D.C: World Bank, 278p.
- Yesufu, T.M. (2000). *The Human Factor in National Development in Nigeria*, Ibadan: Spectrum Books Ltd, 287p.
- Zipfel, J. (2004). *Determinants of Economic Growth*. Florida State University