

# Dynamic Relationship among Education, Poverty and Economic Growth in Nigeria (1986-2011)

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#### Abstract

This study examined the dynamic relationship among education, poverty and economic growth in Nigeria from 1986 to 2011. The study employed secondary data sourced from World Bank World Development Indicators, Central Bank of Nigeria (CBN) annual reports and statement of accounts and statistical bulletin. The data were analyzed using Unit Root Test, Co-integration, Error Correction Mechanism, and Granger Causality Test. There is long run relationship among education, poverty and economic growth in Nigeria. There is a unidirectional causality from poverty to economic growth at 5 percent level of significance; but there is no causal relationship between education and poverty, education and economic growth and between poverty and economic growth at 5 percent level of significance. The study recommends among others that policies that can improve literacy rate such as acquisition of skills, entrepreneurship education or development, small scale enterprise that can reduce the level of poverty in Nigeria should be adopted.

#### **Background to the Study**

Education, as a key component of human capital formation is recognized as being vital in increasing the productive capacity of people. Education, especially at the higher level, contributes directly to economic growth by making individual workers more productive and leading to the creation of knowledge, ideas, and technological innovation (Odeleye, 2012). The effect of education on technological innovation is direct following the Romer/Solow growth theory framework. An investment in education is beneficial to the society, both at micro and macro levels and affects the system both directly and indirectly. Education is basic to development and is also regarded as an instrument through which the society can be transformed. As a salient 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 the 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 and Smith, 2007).

The Nigerian economy has been plagued by several economic and social problems with mass poverty being at the top of the list. This is quite ironic for a country that is endowed with vast natural and human resources. Education seen as a leading instrument for promoting economic growth, for several decades, United Nations has placed great emphasis on primary and, more recently, secondary education. However, the educational sector in Nigeria is plagued by many problems. This is attributed to the attention given to education by the Nigerian governments (both past and present) which is relatively low. Even many years after independence, it is stunning to know that the adult illiteracy rate is still at 74% (Ibidapo-Obe, 2007) and the gross enrollment rate is also low. The minimum amount to be spent by a country on education as stated by the United Nations (UN) is 26% of the country's annual budget. Ironically, according to the data by Herbert as cited in Odeleye (2012) from 1977-1998, the total education budget represented an average of 9.7% of total government expenditures, while its percentage share of the Gross Domestic Product(GDP) from 1991 to 2009 has maintained a value of 0.85%. Its highest value was 5.11% in 1981 and its lowest was 0.85% in 1991 (United Nation, Scientific and Cultural Organization, UNESCO, 2011).

According to Osibanjo (2012) as the 2015 deadline set by the United Nations to attain the Millennium Development Goals (MDGs), especially in the area of education draws near, the need for Nigeria to improve its quality of education to free the citizens from vicious of poverty. Osibanjo (2012) stated that if an individual is given the slightest quality education such one possesses every tendency to redeem himself out of poverty caused by various economic factors in the world. Aside corruption and other problems, Nigeria is today bedeviled with poverty amidst our abundant resources. The country is stricken with poverty today because there is no education for a larger part of the country's populace. As there is no question that any nation which fails to educate it citizens will continue to remain in spiral poverty. An uneducated population is one whose full potentials cannot be tapped (Osibanjo, 2012). Nigeria can reduce poverty through quality education. Oghuvbu (2007) stated that Western education is about one hundred and fifty-six years old in Nigeria. Despite this, some socio-cultural factors still hinders our economic development, causing poverty. With over 163 tertiary institutions as at 2010, the country produces 400,000 graduates per annum (Adesanya, 2013).

Nigeria, the "Giant of Africa" has been a country of paradoxes. It is a country abundantly blessed with natural and human resources, so wealthy, yet so poor; so endowed, yet so deprived (Olanrewaju, 2011). Nigeria



makes more money than many countries of the world but unfortunately is ranked as the world's 20<sup>th</sup> poorest country apparently because most Nigerians (92 per cent) live below the poverty line as they subsist on less than two dollars (N320) a day as at 2010. According to the National Bureau of Statistics (NBS) in Olanrewaju (2011), no fewer than 33 million Nigerians are unemployed, many of them university graduates. According to Adesanya (2013) only 40,000 of the 400,000 Nigerian graduates get jobs yearly. While the 2010 global monitoring report of the United Nation, Scientific and Cultural Organization (UNESCO) put the number of the out of school children at over eight million. Infant mortality rate is 85.8 of 1000 live births, under-five mortality rate is 137.9 of live births, malnutrition prevalence is 41 per cent, and insecurity rate is alarming, while life expectancy at birth is 48.1 years (World Development Indicators, 2011).

According to Olanrewaju (2011), Nigeria, despite all its advantages to be ahead of many countries at the outset had since been relegated to a very quiet place not influenced with ideas of underdevelopment with poverty in the country steadily on the rise. Shortly after independence in 1960, according to the National Bureau of Statistics as cited in (Olanrewaju, 2011) about 15 per cent of the population is poor. This rose to 28 per cent in 1980. By 1985, it had risen to 46 per cent, dropping to 43 per cent in 1992. However, by 1996 the poverty incidence had gone up to 66 per cent before climbing further to the rate of 92 per cent as at 2011. This rise in poverty rate in the country has been inversely proportional to the petro-dollar wealth of the country; it seems Nigeria makes more money to get Nigerians poorer; the richer the country, the poorer the citizens (Olanrewaju, 2011). This is why Nigeria is steadily sliding from relative to absolute poverty. Nigeria has one of the world's highest economic growth rates (averaging 7.4% over the last decade), a well-developed economy, and plenty of natural resources such as oil, tin, coal, columbite and so on. However, it retains a high level of poverty, with 63 per cent living below \$1 daily, implying a decline in equity. Startling as it may be, about two-third of Nigerian peopleis poor, yet Nigeria is a country with vast potential wealth (Chukwuemeka, 2009). Although, revenue from crude oil has been increasing over the past decades, the people of Nigeria have been falling deeper into poverty. In 1980, an estimated 28% of Nigerians lived in poverty, by 1999, about 70% of the population had income of less than \$1 a day and the figure has risen since then (National Planning Commission, 2005). Poverty levels vary across the country, with the highest proportion of poor people in the North-West and the lowest in the South-East (Omo, 2012). The rising trend of poverty in the country is the reflection of public policy in Nigeria.

#### **Statement of the Problem**

Growth in the economy of any nation is a clear indication of an improvement in the socio-economic well-being of its people. In 2007, the Nigeria's experience is pathetic having witnessed fall in its Gross Domestic Product (GDP) from an annual average rate of 10.5 per cent in 1985 to 3.2 per cent (Agricultural Development Bank, 2008). Subsequently, the country also witnessed fluctuations in its per capita income, the latest value for GDP per capita (current US\$) in Nigeria was \$229.52 in 1986 and \$1,501.72 as at 2011. Nigeria experienced a decline in real GDP per capita by 1988 to US\$290 this relegated the nation to low-income country (World Bank, 2012). One of the consequences of these declines is the rate of poverty which has increased from 28.1 per cent in 1980 to about 88 per cent in 2002 (Ijaiya, Ijaiya, Bello, and Ajayi, 2011). More than 50% of the population is poor in the past 10 years. Poverty in Nigeria is rising with almost 100 million people living on less than \$1 a day (World Bank, 2005). Nigerians that live on \$1.25 per day make up to 29%, while 45% of the population lives on less than US\$2 per day, despite strong growth in Africa's largest economy (Atuany, 2013).Despite the growth recorded in Nigeria economy and the increase in the number of educated ones, the proportion of people living in poverty is increasing daily. The percentage of Nigerians in absolute poverty – those who can afford only the bare essentials of foods, shelter and clothing – rose to 60.9 per cent in 2004, the (National Bureau of Statistics in Jonathan, 2012).

Although Nigeria's economy is projected to continue growing, poverty is likely to get worse as the gap between the rich and poor in African's largest oil producer nation continues to widen. Despite the abundance of natural and human resources in the country, the proportion of Nigerians living in poverty is increasing every year. Illiteracy and lack of education are common in Nigeria, without education most people cannot find income generating work with which they could survive. Illiterates usually settle for any menial job and earn wages that cannot meet their personal and family's minimum needs (Afonja and Ogwumike, 2003). With the current state of education, high poverty level and the economic growth in the country, there are concerns whether it is education and economic growths that cause poverty or it is poverty and education that causes economic growth or it is poverty and economic growth that influences the educational level in the country. The study examined how poverty has affected the educational level of the people in Nigeria and the resultant effect on economic growth.

## Objectives of the Study

The broad objective of this study examined the dynamic relationship among education, poverty and economic growth in Nigeria from 1986-2011. The specific objectives are to:-

i. Determine the relationship between education and poverty.



- ii. Assess the relationship between education and economic growth in Nigeria.
- iii. Examine the relationship between poverty and economic growth.

## **Hypotheses**

The following null hypotheses were tested.

Ho1: There is no significant relationship between poverty and level of education in Nigeria. Ho2: There is no significant relationship between education and economic growth in Nigeria. Ho3: There is no significant relationship between poverty and economic growth in Nigeria.

## **METHODOLOGY**

#### Sources and Methods of Data Collection

Secondary data in form of time series data for the macroeconomic variables for the study were from the publication of the Central Bank of Nigeria (CBN), CBN Annual Report and Statistical Bulletin and World Development Indicators.

#### **Model Specification**

The present research work analysed the dynamic relationship among education, poverty and economic growth by using variables like gross domestic product growth rate, poverty rate and literacy rate.

Econometrically, to include random term, the dynamic relationship of the models was expressed as:

$$\begin{split} LIT &= \beta_0 + \beta_1 GDPG + \beta_2 POV + u_{1t} \dots . (1.1) \\ POV &= \alpha_0 + \alpha_1 GDPG + \alpha_2 LIT + \mu_{2t} \dots \dots \dots . (1.2) \\ \text{GDPG} &= \delta_0 + \delta_1 POV + \delta_2 LIT + \dots \mu_{3t} \dots \dots \dots . (1.3) \end{split}$$

Where:

GDPG = Gross Domestic Product Growth rate proxy economic growth

POV = Poverty rate

LIT = Literacy rate/General school enrolment rate proxy education

 $\beta_0$ ---- $\beta_3$ ;  $\alpha_0$ ---- $\alpha_3$  and  $\delta_0$ ---- $\delta_3$ = are coefficient of the parameters.

 $\mu_{ts}$ = Error Terms

This study employed econometric techniques.

#### **Unit Root Test**

Since many macroeconomic time series may contain a unit root, we examined the stationarity properties of the data series and the stability of the variables to determine the order of integration of the series. That is, unit root tests would help to determine the stationarity or otherwise of the variables in the model above. Tests for unit roots in the levels and in first differences, whether they are 1(0), (1) or 1(2) was carried out using Augmented Dickey Fuller (ADF) tests as a robustness check. The test for unit roots in the levels of the series was followed by tests for unit roots in the difference. The test considered both intercept together with intercept and trend.

Assuming there is no trend, the form of the unit root test takes the following formula: -

$$\Delta X_t = \beta_{oX_{t_{\square}}} + \sum_{i=1}^n \beta_i \Delta X_{t-1} + \varepsilon_t \dots \dots \dots (1.7)$$

Assuming intercept and trend, it goes as:-

$$\Delta Y_t = \beta_1 + \beta_2 t + \delta Y_{t-1} + \sum_{i=1}^n \alpha_i \Delta Y_{t-1} + \varepsilon_t \dots \dots \dots \dots (1.8)$$

So as to know whether  $\beta_o = 0$  or  $\delta = 0$  (Unit root problem)

Where the Null hypotheses to be tested for all the data series are;

Ho:  $\beta_X = 0$  or  $\delta_Y = 0$  that the series contains unit root and hence they are non-stationary against the alternative hypotheses.

 $H_1$ :  $\beta_X < 0$  or  $\delta_Y < 0$ , that the series have no unit root and hence they are stationary.

The null hypothesis is rejected if the ADF t – statistics tests is greater than the critical t- value at 5% level of significance.



## **Cointegration Test**

The test for possible cointegration if the variables involved in the equations were 1(1) or 1(2) was carried out using Johansen (1988, 1995) maximum likelihood methodology. Cointegration revolution in time series analysis indicates that in order for a long run equilibrium relationship between variables to exist, the variables should cointegrate, that is the variables should exhibit long run equilibrium (Peters, 2009). The cointegration test is necessary because there is need to determine how the movement in the dependent variable and each of the independent variable(s) move in the long run. The test was performed within a multivariate framework. If the variables exhibit long run equilibrium, they can be said to be cointegrated.

The cointegration test was performed based on the following formula:-

$$\Delta \log Y_t = \beta_o + \Sigma \beta_i \Delta \log X_t + u_{t-1} - \dots$$
 (1.9)

## **Granger Causality Test**

The Granger causality equations for all the variables were specified below:-

$$\Delta \log Y_t = \beta_0 + \Sigma \beta_1 \Delta \log \Sigma X_{t-1} + \Sigma \beta_2 \Delta \log Y_{t-1} + \varepsilon_t \dots (1.10)$$

Granger causality test (Granger, 1986) was carried out to examine the causality dynamics between the variables. Granger causality is a technique for determining whether one time series is useful in forecasting another. Regressions are only mere correlation (Usman and Sarpong, 2008). The standard Granger causality test examines whether past changes in  $X_t$  help predict current changes in  $Y_t$  beyond the explanation provided by past changes in  $Y_t$  (Granger, 1986). If not then  $X_t$  does not "Granger cause"  $Y_t$ .

The null hypotheses of the Granger- Causality test:

 $H_0: X=/=> Y$  (X does not granger –cause Y)

 $H_1: X ==> Y(X \text{ does not Granger- cause } Y)$ 

Except otherwise stated, from null hypotheses one to the last hypothesis, all the hypotheses followed the above interpretations, where rejection of a null hypothesis means Causality in one direction (Unidirectional causality), and rejection of two Null hypotheses means causality from both directions of the variables (bidirectional causality).

#### **Results and Discussion**

 Table 1: Shows the Result of Stationarity Test

Variables	Augmented Dickey Fuller (ADF) Test		5% Critical Values		Order of Integration
	At Level	At First Difference	At Level	At First Difference	
GDPG	-4.953238	-7.727125	-3.603202	-3.612199	I(0)
POV	-1.992502	-6.58224	-3.603202	-3.612199	$\vec{I(1)}$
LIT	-3.436709	-6.135858	-3.603202	-3.622033	I(1)

**Source:** Author computation using Eview 7.1.

From table 1 the ADF statistics showed the result of stationarity test where economic growth (GDPG) is stationary at level. This is because the ADF test is less than the critical value of 5%. Poverty (POV), Literacy rate (LIT), are not stationary at level, but became stationary after the first difference. Hence GDPG is integrated of order zero I(0), and POV, LIT are integrated of order one I(1).

**Table 2 Cointegration** 

Eigen value	Trace Statistic	5% critical value	Prob.**
0.984813	351.9201	150.5585	0.0000
0.967099	251.4238	117.7082	0.0000
0.327100	9.507805	12.51798	0.1513

Johansen cointegration test based on the Trace statistic and maximum Eigenvalue indicates six cointegrating equation(s) at 5% level of significance. This showed that there is long- run equilibrium relationship among economic growth (GDPG), poverty (POV) and literacy rate (LIT) in Nigeria from 1986-2011.

**Table 3 Vector Error Correction Estimates** 

Error Correction:	D(LIT)	D(POV)	D(GDPG)
cointEq1	0.354165	0.821326	-2.157839
	(0.24541)	(0.77189)	0.51502)
	[1.44318)	[1.06405]	[-4.18983]

**Source:** Authors computation using Eview 7.1.

In table 4, the error correction mechanism (ECM) showed that 35% of the short- run disequilibrium has



been corrected by education (LIT) annually. Also 82% of short-run disequilibrium has been corrected by poverty annually. The error correction terms showed that 215% of the short-run disequilibrium is corrected by economic growth (GDPG) in the year. The ECM coefficient of economic growth is correctly signed as it is negative and statistically significant at 5% level of significance.

D.W.stat. = 1.044498

**Table 4 Granger Causality Test Result** 

Null Hypothesis:	Obs.	F-Statistic	Probability	Decision
LIT does not granger cause GDPG	24	0.17578	0.8402	Accept
GDPG does not granger cause LIT		3.10843	0.0679	Reject **
POV does not granger cause GDPG	24	8.33108	0.0025	Reject *
GDPG does not granger cause POV		1.32934	0.2882	Accept
POV does not granger cause LIT	24	0.59638	0.5608	Accept
LIT does not granger cause POV		2.09549	0.1505	Accept

**Source:** Author's computation using Eview 7.1

\*, \*\* means the variables are statistically significant at 5% and 10% respectively.

The result of the granger causality test showed no causal relationship between LIT and GDPG. Literacy rate (LIT) does not granger cause economic growth (GDPG) and GDPG does not granger causes LIT, because the probability is greater than 0.05. Poverty (POV) granger causes economic growth (GDPG) because the probability is less than 0.05; therefore we reject the null hypothesis. GDPG does not granger cause poverty (POV) because the probability is greater than 0.05 level of significance. Poverty (POV) and literacy rate(LIT) does not granger cause each other; their probabilities are greater than 0.05 at 5% level of significance in Nigeria.

## **Major Findings**

Various tests such as unit root test, co-integration test, error correction estimated, ordinary least square (OLS), Granger causality test, were used to analyse the data. Hence, the following were found from the analysis:

- 1. The Unit root test conducted revealed the following: Economic growth rate (GDPG) is stationary at level; literacy rate (LIT), poverty rate (POV), are all stationary at first difference;
- 2. The Johansen cointegration test revealed that: There is long-run equilibrium relationship between education, poverty, economic growth rate (GDPG), in Nigeria from 1986-2011.
- 3. The Error correction estimates revealed that:
  35% short-run (SR) disequilibrium has been corrected by education annually, 82% SR corrected by poverty, and deviation from long-run (LR) economic growth is corrected by 215% annually.
- 4. At 5% level of significance, the granger causality test revealed the following: There is no causal relationship between economic growth rate (GDPG), and literacy rate (LIT), economic growth rate (GDPG), poverty (POV), POV and LIT at 5% level of significance. There is a unidirectional causality from poverty rate (POV) to Economic growth rate (GDPG), at 5% level of significance.

#### Discussion

There is long-run equilibrium relationship between education (LIT) and poverty (POV). Poverty has negative effect on education [literacy rate (LIT)] and poverty is not statistically significant determinant of education in Nigeria. This showed that despite the increase in the number of educated people, a lot of Nigerians remained poor. The result of this study is in disagreement with Afzal et al (2011) that said that better education could be an effective tool for reducing poverty. In this research, for instance, a unit increases in education level increases poverty instead of reducing it. This is because people that are educated are not getting jobs to do and even those that are working are not doing the jobs that can satisfy their needs.

There is long-run relationship between education [literacy rate (LIT)] and economic growth (GDPG). Economic growth has negative effect on education, and is not statistically significant determinant of education in Nigeria. A unit increase in economic growth should increase the level of education but the reverse is in the case of Nigeria. A unit increase in economic growth reduced the level of education because people are not enjoying the effect of the increase in economic growth. It implies that if people are educated and not employed they cannot send their children to school. This has in turn reduced the number of educated people in some parts of Nigeria because they have no income. This is in line with Bakare (2011) that there is no significant impact of educational attainment on economic growth.

Long-run relationship exists between poverty and economic growth. Economic growth has positive effect on poverty since it is not statistically significant determinant of poverty. This showed that when economic



growth is increasing in Nigeria, poverty is also increasing. In a normal situation, poverty was supposed to reduce when economic growth was increasing. Because of corruption in Nigeria and the inability to distribute the income generated evenly in the country, poverty is increasing despite the increase in economic growth. This is contrary to the findings of Stevans and Sessions (2008) that increase in economic growth is significantly related to reductions in the poverty rate for all families.

### CONCLUSION AND RECOMMENDATIONS

#### Conclusion

In conclusion, poverty has negative relationship with education and is not statistically significant determinant of education in Nigeria. Economic growth has negative relationship with education and it is not statistically significant determinant of education. Economic growth has positive relationship with poverty but not statistically significant determinant of poverty in Nigeria .Economic growth and poverty have negative effect on education proxy by literacy rate in Nigeria, while education has negative effect on economic growth and poverty. Economic growth has positive impact on poverty. However, there is a long-run relationship among education, poverty and economic growth in Nigeria from 1986-2011.

#### Recommendations

In line with the findings, the following recommendations are given:

- 1. Since, literacy rate has negative effect on poverty, it is important for the government to adopt education policy and consolidate a system and strategies that can reduce poverty in form of poverty alleviation programmes that can go a long way in enhancing education.
- 2. Since literacy rate has negative impact on poverty, it is expected that policies that can improve literacy rate such as acquisition of skills, entrepreneurship education or development, small scale enterprise that can reduce the level of poverty in Nigeria should be adopted.
- 3. A strong will by government is required to make efforts on increasing system of education capable of promoting self-reliance and reduce unemployment, can also reduce poverty and enhance economic growth.
- 4. Policy measures like reorienting values, creating wealth, and generating employment, income generated evenly distributed should be put in place to improve economic growth that can lead to poverty reduction.

## REFERENCES

- Adesanya, N. (2013). Unemployment rate. Retrieved on 18th January, 2014 from www.ackity.net/40,000 peoplegets-job.
- Afonja, B. and Ogwumike, F.O. (2003). *Integrating poverty alleviation strategies into plans and programs in Nigeria*. NCEMA, Ibadan, Nigeria.
- Ajilore O. T, (2002). Financial sector reforms and efficiency of financial intermediation in Nigeria: Statistical evidence. *Ife Journal of Economics and Finance.ISSN 0775* 7777.5 (1&2).
- Atuany, P. (2013). Nigeria's economy largest in Africa as rebasing boosts GDP to \$405bn. *Retrieved on 19th June, 2014 from businessdayonline.com/2013/12/niger.*
- Babalola, S.J. (2011). Long run relationship between education and economic growth: Evidence from Nigeria. *International Journal of Humanities and Social Science 1(14)*.
- Chukwuemeka, E. O. (2009). Poverty and millennium development goals in Nigeria: The nexus. *International Journal of Economic and Development Issues.* 8 (1&2): 54-62.
- Granger, C.W. J. (1986). "Developments in the study of cointegrated economic variable". Oxford Bulletin of Economics and Statistics, Vol. 48, 226.
- Gujarati, D. (2004). Basic econometrics. (4th Ed.). India: MC Graw Hill.
- 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.
- Ibrahim, M. K. (2010). Socio-economic effect of poverty on Nigeria development. *International Journal of Economic Development and investment.* (1) 173-181.
- Ijaiya, G.T. Ijaiya, M.A. Bello, R.A. & Ajayi, M. A. (2011). Economic growth and poverty reduction in Nigeria *International Journal of Business and Social Science.* (2). 15:147-154.
- Jonathan, G. (2012). Nigeria poverty rising despite economic growth. *Retrieved on 7th January, 2013 from http://tribune.com.ng/index.php/features/29812.*
- National Planning Commission (2005). *National economic empowerment and development strategy (NEEDS)*. Communication Limited Lagos.
- Odeleye A. T. (2012). Education and economic growth in Nigeria: A comparative analytical approach. *European Journal of Globilization and Development Research*, 5 (1).
- Oghuvbu, P. E. (2007). Education poverty and development in Nigeria: The way forward in 21st century) 14: 19-



- 24. Journal of Social Science. (1) 14: 19-24.
- Olanrewaju, S. (2011). Nigeria: Still wallowing in poverty. Retrieved on 9<sup>th</sup> January, 2013 fromhttp://tribune.com.ng/index.php/features.
- Omo, G. (2012). How government impoverished Nigerians, poverty on rampage. *Retrieved on 7<sup>th</sup> January, 2013 fromwww.vanguardngr.com/....*
- Osibanjo, O.A.(2012). Only quality education can free Nigerians from poverty. *Retrieved on 7<sup>th</sup> January, 2013 from http://www.basel:int*
- Soludo, C. (2006). Can Nigeria be the China of Africa? A paper delivered at the founders' day of the University of Benin, Benin City.
- Todaro, M. P. & Smith, S.C. (2007). Economic development: Pearson education. 8th, (ed) India.
- UNESCO (2011). Education for all: The Quality imperative. EFA (Education for all) Global Monitoring Report.
- Usman, S. & Sarpong. F. A. (2008). "Testing of Granger Causality with application to exchange rates for Swedish Kronor with GB pound and US Dollar" Retrieved on 14th, 2009 from http://biblioteket.ehl.luse/olle/papers/0003294, Pdf.
- World Bank (2012). Nigeria GDP per capita.www.TRADINGECONOMICS.com/WORLDBANK World Development Indicator (2011).World Bank indicators. Retrieved on 7th February, 2013from http://data.worldbank.org/indicator.