



TRENDS AND PATTERNS OF EDUCATION, POVERTY AND ECONOMIC GROWTH IN NIGERIA (1986-2015)

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Abstract

The Nigerian economy has been plagued by several economic and social problems with mass poverty being at the top of the list. This study examined the trends and patterns of education, poverty and economic growth in Nigeria from 1986 to 2015. 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 Descriptive Analysis and correlation analysis. The result from the study revealed that the maximum of Literacy rate (LIT) was 66.9%, which was recorded in 2007, while the minimum was 47.5% that was recorded in 1986. The maximum of poverty (POV) was 71.5%, which was recorded in 2015, while the minimum was 42.4% recorded 1992. In addition, the maximum and minimum of economic growth rate (GDPG) was 33.7% and 10.8%, which was recorded in 2003 and 1986 respectively. There is long- run relationship between education, poverty and economic growth in Nigeria. 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.

Keywords: Education, Poverty, Economic Growth, Nigeria

Introduction

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, 2015). Nigeria makes more money than many countries of the world but unfortunately is ranked as the world’s 20th poorest country apparently because most Nigerians (92 per cent) live below the poverty line as they subsist on less than two dollars (₦320) a day as at 2010. According to the Nigerian Bureau of Statistics (NBS) (2010), no fewer than 33 million Nigerians are unemployed, many of them university graduates, 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,

2015). 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 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, 2015).

Looking at the statistics above, it is clear that expenditure on education is still very low. From these definitions, education is a systematic procedure for the transfer and transformation of culture, through formal or informal training of people in a society. It deals with the mental, physical, psychological and social development of the citizens in a given society. The goal of education is work force development, aimed at national growth and development. The paper is divided into five sections, section one is the background to the paper, section reviewed of related works in the area, section three method of empirical analysis and finally, section five is conclusion and policy implication

Literature Review

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 its 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 hinder our economic development, causing poverty. Nigeria being the most populous country in Africa and among the nations with a population estimated at about 170 million, with the highest number of people living in poverty in the world after China and India happened to be one of these countries that pledged the attainment of the Millennium Development Goals (Igbozorceditedin Ibrahim, 2010).

According to Soludo (2006), Nigeria has the 8th largest deposit of natural gas in the world. There are also abundant solid mineral deposits that remained largely untapped. With over 163 tertiary institutions as at 2010, the country produces 400,000 graduates per annum (Adesanya, 2013). Shortly after independence in 1960, according to the National Bureau of Statistics as cited in (Olanrewaju, 2015) 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 2015. 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, 2015). This is why Nigeria is steadily sliding from relative to absolute poverty. Relative poverty here means a measure of income inequality. It is measured as the percentage of population with income less than a fixed proportion of median income. Absolute poverty, however is a condition characterised by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health sector, education and information. It depends not only on income but also on access to services. 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 people are 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). Despite the increase in economic growth recorded in Nigeria, people are still living in abject poverty.

The pattern of 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, Nigeria witnessed a decline 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 2015. However, 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, & Ajayi, 2015). 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). Nigeria's economy witnessed 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).

Despite the abundance of natural and human resources in the country, the proportion of Nigerians living in poverty is increasing every year. Consequently, most people cannot find income generating work with which they could survive because of the inadequate or lack of education. 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, serious socio-economic crises are imminent. There are, therefore, concerns to examine the trends and patterns of education, poverty and economic growth in Nigeria.

Methodology

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 analyzed the trends and patterns of 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 trends and patterns of the models were expressed as:

$$LIT = \beta_0 + \beta_1 GDPG + \beta_2 POV + u_{1t} \dots (1)$$

$$POV = \alpha_0 + \alpha_1 GDPG + \alpha_2 LIT + \mu_{2t} \dots (2)$$

$$GDPG = \dots + \delta_2 LIT + \dots + \mu_{3t} \dots (3)$$

Where:

- GDPG = Gross Domestic Product Growth rate proxy economic growth
- POV = Poverty rate
- LIT = Literacy rate/General school enrolment rate proxy education
- μ_{it} = Error Terms

Discussion of a priori Expectations

From the models, the *a priori* expectation may be mathematically denoted by:

$$LIT = \dots > 0; \dots < 0; \dots < 0 \dots (4)$$

$$POV = \dots < 0; \dots < 0; \dots < 0 \dots (5)$$

$$GDPG = \dots < 0; \dots > 0; \dots > 0; \dots 0 \dots (6)$$

In the education model proxy by literacy rate, the Gross Domestic Product Growth rate (GDPG) is expected to have a positive impact on literacy rate. A growing economy is an economy that improves its human capital. Hence, there will be an increase in literacy rate; as the economy grows (GDPG).

Thus, the coefficient of GDPG to literacy rate is positive > 0 .

The coefficient of poverty is negative < 0 . That is as poverty increases, there will be decrease/ reduction in literacy rate, because people will not find sufficient resources to educate themselves or their children. Considering the poverty model, Economic growth proxy by (GDPG) is expected to have negative effect on level of poverty. The coefficient of GDPG is expected to be negative i.e. < 0 , the higher the GDPG, the lower the level of poverty. Gross Domestic Product Growth rate will impact poverty positively, if GDPG is evenly distributed, the living standard will improve and poverty will be eradicated. Theoretically, the effect of literacy rate on the level of poverty is negative; the higher the literacy rate, the lower the level of poverty < 0 . When there is an increase in general school enrolment, it increases the numbers of educated people in the economy, which will lead to

Data Presentation and Analysis The Descriptive Analysis

Table 1: Descriptive Analysis of Variables (1986-2015)

	GDPG	LIT	POV
Mean	5.292388	57.64300	59.08667
Median	5.503147	57.94000	54.55000
Maximum	14.60438	69.30000	81.20000
Minimum	-0.552030	47.48000	42.40000
Std. Dev.	3.688895	5.342596	11.37034
Skewness	0.435131	0.147553	0.071180
Kurtosis	2.758562	2.807002	1.684216
Jarque-Bera	1.019561	0.155420	2.189441
Probability	0.600627	0.925232	0.334633
Sum	158.7717	1729.290	1772.600
Sum Sq. Dev.	394.6304	827.7566	3749.255
Observations	30	30	30

Source: Authors computation using EViews 10

Pattern of Economic Growth Rate in Nigeria (GDPG) (1986-2015)

From table 1, on the average the economic growth rate (GDPG) in Nigeria during the period was approximately 5.3% growth rate. This means that on the average the GDPG in Nigeria during the period was 5%. The median of the GDPG was 5.5%. Also the maximum percentage of the GDPG was 14.6, while the minimum percentage of the GDPG was -0.5. The standard deviation of GDPG was 3.6% that is the GDPG deviated from the mean by 3.6%. The skewness of the curve was 0.4%.

reduction in poverty under normal situation. In addition, the economic growth model proxy by Gross Domestic Product Growth rate (GDPG) when there is an increase in poverty level, the GDPG decreases. The coefficient of poverty is negative In case of literacy rate; an increase in the literacy rate increases economic growth. Thus, the coefficient of LIT is positive

Data Analysis

This study employed both descriptive in the form of mean, median maximum and minimum and correlation to analyse the variable.

Descriptive Analysis

Descriptive analysis in form of trend analysis and correlation analysis were used to achieve the objective.

Pattern of Poverty (POV) Rate in Nigeria (1986-2015)

On average basis, poverty (POV) in Nigeria during the period was 59.08%, while the median of poverty was 54.55%. Also the maximum poverty rate was 81.2. This means that the rate of poverty level at that period was very high. The minimum poverty rate was 42.40% in 1992. The standard deviation was 11.37%. This showed the degree of deviation from the mean.

Pattern of Literacy Rate (LIT) in Nigeria (1986-2015)

In the descriptive analysis table, the mean of literacy rate (LIT) was 57.64%. The median was 57.94%, which was a little lower than the average. The maximum level of literacy rate (LIT) was 69.30% in 2007, while the minimum rate was 47.48% in 1986. The number of people that were

educated at the period is a little low. The standard deviation from the mean was 5.34% as it was indicated in table 1.

Correlation Analysis

To determine the relationship between the variables, correlation analysis was carried out and the result is presented in table 2.

Table 2 Correlation Result

Correlation t-Statistic Probability	GDPG	LIT	POV
GDPG	1.000000 ---- ----		
LIT	0.393295 2.263536 0.0315	1.000000 ---- ----	
POV	0.021073 0.111534 0.9120	0.384014 2.200746 0.0362	1.000000 ---- ----

Source: Authors computation using E-Views 10

The result in table 2 showed a positive relationship between literacy rate (LIT), poverty rate (POV), as they relate to economic growth rate (GDPG) in Nigeria. This is because in the economic growth column, all the variables gave positive figures. From the correlation table, Literacy rate (LIT) has a statistically significant positive relationship with economic growth (GDPG), and poverty (POV) but not statistically significant in the case of poverty, in the sense that, while there is an increase in literacy rate (LIT), there will be a positive change in poverty (POV), while it has positive relationship with economic growth (GDPG). Poverty (POV) on the other hand is related to economic growth (GDPG), and literacy rate (LIT) positively.

Major Findings

Various tests such as descriptive analysis, correlation analysis, were used to analyse the data. Hence, the following were found from the analysis:

- The descriptive analysis revealed that:
The mean of Economic Growth (GDPG) is 5.391923 and the median is 5.150000; the mean of literacy rate (LIT) is 57.49692 and the median is 57.00000; the mean of Poverty (POV) is 56.63077 and the median is 54.20000; the maximum and minimum of economic growth (GDPG) during the period were 33.7 and -10.75 in 2003 and 1986 respectively; the maximum and minimum of literacy rate (LIT) were 66.9 and 47.5 which were recorded in 2007 and 1986 respectively; the maximum of poverty (POV) recorded

during the period was 71.5 in (2015), while the minimum was 42.4 in 1992;

- The Correlation Matrix in table 2 revealed the following:

Positive relationship existed between education proxy by literacy rate (LIT), poverty rate (POV), and economic growth rate (GDPG) has negative relationship with literacy rate (LIT), poverty (POV) in Nigeria; positive relationship exist between economic growth rate (GDPG), literacy rate (LIT), poverty rate (POV) and literacy rate (LIT) is positively related to economic growth rate (GDPG), poverty rate (POV) while negative relationship exists between literacy rate (LIT) and economic growth rate (GDPG); poverty rate (POV) relates to economic growth rate (GDPG), education[literacy rate (LIT)] positively.

Discussion

The results of descriptive analysis showed that the mean, median, maximum and minimum of economic growth (GDPG) were 5.391923, 5.150000, 33.7 in 2003 and -10.75 in 1986 respectively. This implied that the maximum economic growth which was recorded in year 2003 was very low compared with other years. In 1986 the minimum economic growth was negative which showed that the economy at that time was experiencing recession. The maximum and minimum of education [literacy rate (LIT)] were 66.9 in 2007 and 47.5 in 1986. This also indicated

high level of educated people in the country as at 2007 but this did not reflect or have any effect on the economic growth. This is in disagreement with the study conducted by Dauda and Oladoyin (2010) which found a positive and significant relationship between functional literacy and economic growth. In agreement with Ayara (2003) and Ararat (2007) they found negative and significant relationship between functional literacy and economic growth. The maximum level of poverty rate (POV) was 71.5 in 2015. This was high despite the high rate of economic growth. This showed that the high economic growth has not impacted positively in the lives of the people perhaps because of high level of corruption in the country.

Conclusion and Recommendations

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 equilibrium relationship among education, poverty and economic growth in Nigeria from 1986-2015.

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.

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