

IMPACT OF EDUCATION ON LIVING STANDARD IN NIGERIA

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Abstract

Education brings about awareness and increases opportunities for growth and development. On the individual level, education brings about economic opportunities and improves individual standard of living. On the aggregate level, education improves labour skills leading to increase in productivity and overall standard of living. The present study employed the Johanson Cointegration Test and Vector Error Correction Model (VECM) to investigate the relationship between education and standard of living. The variables used include per capital real GDP, government expenditure on education and health. The result suggested a long-run relationship between the variables, implying a rapid adjustment towards equilibrium.

Keywords: Development, Education, Living standard, Health

Introduction

Education is the basis of economic development and societal advancement. Investment in education improves human capital, increases productivity and hence standard of living. Inadequate investment in this important sector of the society results in poor output and low level of quality. Countries having high percentage of their total population uneducated or with a low level of quality education or uneducated majority of total population find it difficult to considerably increase their GDP and improve their standard of living (Zayid & Tayyaba, 2013).

The Nigerian education system has witnessed a rapid expansion since the 1970s. This however, has not been maintained and sustained due to frequent policy changes and decline in foreign earnings (UNESCO, 2006). The federal government expenditure on education has always been below 10% of its total budget compared to the United Nations Educational Scientific and Cultural Organization's (UNESCO) 26% recommendation. A bulk of the allocation goes to recurrent expenditure. In recent times, per capital GDP is on the decline due to continuous rise in population and decrease in GDP. Also allocation of expenditure on social services, which includes education and health, has decreased as a result of the global fall in oil price and economic resources mismanagement.

The importance of education cannot be overemphasized in any economy. On the individual level, education brings about economic opportunities and improves individual standard of living. On the aggregate level, education improves labour skills leading to increase in productivity and overall standard of living. The paper seeks to analyse the relationship between education and standard of living. The study would

guide the Nigerian policy makers in developing efficient and effective education policy that would help develop the economy.

Literature Review

Investment in education improves the quality of labour. This increases the efficiency of labour as a factor of production. Better education provides better opportunities, increases the chances of being employed and improves the standard of living. The importance of investment in human capital can be traced down to Adam Smith's *Wealth of Nation* where he emphasized the role of human capital to the creation of economic wealth. Other early theories include Becker (1964) and Mincer (1979). Their work emphasized the role of education in promoting economic growth.

Babatunde and Adefabi (2005) investigated the long run relationship between education and economic growth in Nigeria. They examined two different channels through which human capital can affect long run economic growth in Nigeria. The first channel is when human capital is a direct input in the production function and the second channel is when the human capital affects the technology parameter. The study found that labour force has a significant influence on the economy as a factor of production through factor productivity.

Zaid and Tayaba (2013) examined the long run relationship between poverty, education expenditure and education status in Pakistan. The study used Percentage of population below national poverty line, Adult Literacy rate over 15 years of age, government expenditure on education as a percentage of total expenditures and Total School life Expectancy to estimate the relationship. The result concluded that there exists a strong causal bi-directional relationship running between poverty rate and education status in the region. The research also concludes that, increasing budgetary allocation to funding education sector alone without reducing poverty level would not be sufficient to improve the education status of the country.

Dickson et al (2006) developed a model to analyze the effect of investing in early education on economic growth. The model predicts substantial gains in GDP, and the stocks of physical and human capital across a wide range of assumptions about the growth process of the economy. It predicts an increase of about 3.5 percent in GDP.

Babalola (2011) analysed, empirically, the relationship between investment in education and economic growth in Nigeria using annual data over the period 1977 to 2008. The unit root properties of the data were examined after which the cointegration and causality tests were conducted. The error correction models were also estimated in order to examine the short run dynamics. The result suggests a long run relationship and a short-term dynamism.

Mba et al. (2013) evaluated the relevance of human capital development on the growth of the economy. The study deduced a strong positive relationship between human capital development and economic growth. Using panel data of African countries from 1990 to 2002, Anyanwu and Erhijakpor (2007) studied the relationship between government expenditure on education enrolments, with illustration from Nigeria and other SANE (South Africa, Algeria, Nigeria, and Egypt) countries at the primary and secondary school levels. The results show that government expenditure on education has a positive and significant direct impact on primary and secondary

education enrolment rates.

Kaur et al (2003) in their studies of the cyclical behaviour of social sector spending including that on education and health covering 17 non-special category states in India covering the period 2000 to 2013. Their empirical findings reveal that social spending is acyclical, that is, moving independently of the state of the economy, while government expenditure on education is pro-cyclical. The pro-cyclicality is more significant for the states with higher income than the lower income state.

Methodology

The study employed the Johanson Cointegration and Error Correction Model to investigate the relationship between the variables. The multiple linear regression model for the study is specified below:

$$rgdp = \beta_1 + edu_t + hth_t + u_t$$

Where *rgdp* is the per capita real *gdp*, *edu* is per capita government expenditure on education, *hth* is per capita government expenditure on health and *u* is the error term. The data covers the period of 1981 – 2013. The data source is Central Bank of Nigeria and World Bank database.

The study employed Augmented Dickey Fuller (ADF) to check for the stationarity of the variables.

The ADF test consist of estimating the following regression for each variable

$$\Delta Y_t = \beta_1 + \beta_2 t + \delta Y_{t-1} + \sum \alpha_i \Delta Y_{t-i} + u_t$$

Where Δ is the first difference operator, $\delta = (\rho - 1)$, *t* is the time or trend variable *u_t* is a pure white noise error term. The null hypothesis is that $\delta = 0$; that is, there is unit root and the time series is non-stationary. The alternative hypothesis is that $\delta < 0$; that is, the time series is stationary.

Results and Discussion

Summary of ADF unit root test

Variables	Test statistic	1% critical value	5% critical value	10% critical value	p-value
Rgdp	-4.352	-4.325	-3.576	-3.226	0.0026
Edu	-6.345	-4.325	-3.576	-3.226	0.0000
Hth	-6.814	-4.325	-3.576	-3.226	0.0000

All variables are integrated at first difference.
No. of lags: 0

Source: author's computation

In the table above, the absolute value of test statistics for *rgdp* is greater than the 1% critical value and the p-value is less than 5% so we will reject the H_0 of unit root in the variable and conclude that the variable is stationary at first difference. The absolute test statistic values for *edu* and *hth* are also greater than the critical values with their p-values less than 5%. H_0 is also rejected for these two variables. The variables are all integrated at first difference.

Cointegration test

The study applied Johansen Cointegrated test to examine the long run relationship between the variables.

Johansen Cointegration test

maximum				trace	5%
rank	parms	LL	eigenvalue	statistic	critical value
0	12	-397.95414	.	36.4349	29.68
1	17	-385.75354	0.54485	12.0337*	15.41
2	20	-380.46509	0.28908	1.4568	3.76
3	21	-379.73669	0.04591		

From the above null hypothesis of no cointegration is rejected since the trace statistics is greater than the 5% critical value. The null hypothesis of at least one cointegrating equation is not rejected as the trace statistic is less than the critical value. Thus the null hypothesis of one cointegrating equation is accepted. This implies that there is a long-run relationship between the variables, having determined the presence of cointegrated equation. The study estimated the vector error correction model (VECM) of the variables.

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