

Appraising Relationship between Education and Economic Sector in Nigerian Economy

Onuselogu, Adaobi P. (Ph.D),^a Ughamadu, Uju. F. (Ph.D),^b Uzochina, Gladys O. (Ph.D)^c

^a Department of Educational Foundations, Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus. Anambra State – Nigeria
Phone: +234(0)8033428376

Email: adaobionusegueduonline@yahoo.com

^b Department of Educational Foundations, Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus. Anambra State – Nigeria
Phone: +2348036664277

Email: ughamaduuju@yahoo.com

^c Department of Educational Foundations, Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus. Anambra State – Nigeria

Abstract. The main thrust of this paper was to appraise the relationship between education and economic sector in Nigeria. The study adopted a descriptive survey design and was guided by two research questions and one null hypothesis tested at 0.05 level of significance. The population comprised 720 senior staff of public tertiary institutions (academic staff = 310 and non-teaching staff = 410) in Anambra State, Nigeria. The sample was 500 respondents randomly drawn from Nnamdi Azikiwe University, Awka and Chukwuemeka Odumegwu Ojukwu University, Uli. An instrument developed by the researcher and validated by three experts was employed to gather data. The data collected were analyzed using mean, standard deviation and Pearson Product Moment Correlation Coefficient. The result of data analysis showed a positive relationship between education sector and the economic sector in Nigeria. This implies that the decline witnessed in the economic sector is as a result of poor attention given to the education sector in Nigeria by the stakeholders. The paper therefore recommends increased funding for the education sector and a review of the school curriculum to make it more relevant to the needs of the Nigerian society.

Keywords: Appraising, Relationship, Education sector, Economic sector, Nigeria economy.

1 INTRODUCTION

Education is a universal phenomenon, a general feature of human life which every society experiences. It is the process of teaching and learning usually at school, college or university (Summers, 2008). It is for the upbringing of the young in the ways of life of a given society in order to ensure the continual survival and identity of the society. In view of the fact that every society has its own culture, different from those of other societies, each society devises the type of education that will serve it or will be relevant to its needs, problem and aspirations .

Education is an age long phenomenon in all societies although it may take various forms from one society to another. Prior to the advent of colonialism and the introduction of western education two forms of education had existed, viz traditional education and Islamic education. The traditional education consisted essentially of general but informal training in character, norms, agriculture, fishing, intellectual and other ways of life as approved by society. Islamic

education on the other hand is a form of education that is based on the Quran. It is commonly practiced in Northern part of Nigeria. The coming of the European Christian missionaries ushered in the formal system of education in Nigeria in the 19th century.

Although the primary goal of the early Europeans was for economic exploitation of the Africans they later established churches and schools in all the nooks and crannies of Nigeria. The schools were established to train catechists, clerks, messengers and other skilled men to work in colonial offices. The children in these established schools were taught reading, writing and arithmetic. The initial persons that were trained in the schools became the first indigenous individuals to be employed by the colonial government as interpreters, clerks, teachers and messengers.

The establishment of schools and colleges by the colonial governments and the benefits accruing from it, motivated private individuals, the missionaries and regional governments to establish their own schools. The colonial governments provided grant-in-aids to the missionaries in their respective regions especially in Southern Nigeria. Omojimito (2010) observed that expanded educational facilities were seen as the panacea to the manpower needs and overall development in post colonial Nigeria.

The role of human capital formation in economic development has long been recognized by scholars. According to Harbison (1973) human beings are the active agents who accumulate capital, exploit natural resources, build social, economic and political organizations and carry forward national development. There is no gainsaying the fact that a nation which is unable to develop the skills and knowledge of its people and utilize them effectively in the national economy will be unable to develop anything else. Similarly, other studies have found a positive correlation between human capital development and economic growth (Lucas, 1958, Romer, 1990, Barro, 2001, Abbas & Foreman-Peck, 2007).

Education generally provides individuals with the necessary knowledge and skills that will enable them contribute their quota towards national development. Schultz (1962) argued that education particularly formal education enable individuals to acquire skills. Such skills he maintained raise the marginal product of the worker itself and also help to raise the marginal product of the other co-operant factors.

It is widely acknowledged that, education is an important determinant factor of economic growth. Prominent classical and neoclassical economist such as Adam Smith, Romer, Lucas and Solow emphasized the contributions of education in developing their economic growth theories and models. The main theoretical approaches of modeling the linkages between education and economic performance are the neoclassical growth models of Robert Solow (1957) and the model of Romer (1990).

The national consciousness of the significance of education in Nigeria formed the basis upon which education expenditure became a matter of serious consideration. Since 1960, to date one of the major problems facing educational sector is low investment in the infrastructural research grants and learning aid especially in the public schools. For several years now, educational industry has suffered tremendous neglects arising mainly from the ineptitude of education administrators at the various levels of government in Nigeria. According to Ukeje (1993) the problem of education is not only in terms of the economic factor of increasing demands in the face of decreasing resources but also in terms of political considerations.

Unlike Nigeria, most of the development and developing countries emphasize the enhancement of educational sector. Nigeria has no exceptions in developing and enhancing its educational system in order to be a world class country (Ibrahim & Awang, 2008). Nigeria's efforts and commitment in developing its educational sector has been tremendous. This can be seen from Nigeria's annual budget allocation. Nigeria has allocated significant amount of her budget to the education sector and this has continued to increase for each budget session.

Although the governments of Nigeria have continued to increase her financial resources to the education sector, the increase appear to be insignificant and inadequate when are considers the increasing demand in the personnel needs, infrastructure and research. It is against this background that the present study was undertaken to appraise the relationship between the education sector and the economic sector or Nigeria economic.

1.1 Statement of the Problem

The federal, state and local government allocation to education sector has steadily declined since 1999 and is much lower than the average in the last year of military rule. The UNESCO recommended that the government of every nation should allocate 42% of her annual budget to the education sector. This recommendation has not been achieved by the federal government in Nigeria. Rather the federal government has Education Trust Fund as an alternative source of financing education. The TET fund was established in 1995 by the federal government to ensure that companies with more than 100 employees contribute 2% of their pre-tax earning to the fund. Fund realized from the TET fund is used to provide facilities in both state and federal institutions across the country.

Despite the impact of TET fund on the educational development in Nigeria, poor funding has remained a challenge in Nigerian education sector. The educational infrastructure and facilities have remained inadequate for coping with a system that is growing at a geometric progression. Due to poor funding, the quality of education offered is affected by poor attendance and inadequate preparation by teachers at all levels. Physical facilities such as libraries, laboratories, modern communication and information technology equipment have not been adequately provided.

There is no gainsaying the fact that a successful educational sector will play an important role in achieving national development agenda and contribute to a country's economic growth. The problem of this study therefore is: what is the relationship between education sector and economic sector in national development.

1.2 Purpose of the Study

The general purpose of this study is to appraise the relationship between education sector and economic sector in Nigeria. Specifically the study set out to:

1. Examine the impact of education sector on economic sector.
2. Ascertain the impact of economic sector on education sector.
3. Find out the relationship between education sector and economic sector in Nigeria.

1.3 Research Questions

The study is guided by a research question:

1. What is the impact of education on economic sector in Nigeria?
2. What impact has economic sector on education sector?
3. What is the relationship between education sector and economic sector in Nigeria?

1.4 Research Hypothesis

The study is also guided by one hypothesis tested at 0.05 level of significance.

HO₁: There is no significant difference between education sector and the economic sector in Nigeria.

1.5 Significance of the Study

The study will be of great significance to the following; teachers, educational administrators and authorities, policy makers and general public.

The outcome of this study will enable teachers understand and appreciate the importance of education in the development of ones innate abilities and skills in their students. The acquisition of skills by the students will help develop the economy.

The study will benefit the education authorities and administrators, as this will propel reforms, and transformation in the education industry where necessary.

The study will also be of great importance to policy-makers because it will make them to appreciate the relationship between education and economic sector and able to make policy adjustments concerning the education sector.

Finally, the study will enable the general public realize the importance of education and its impact on the economic sector in Nigeria.

1.6 Theoretical Framework

The theory on relationship between education and economic sectors has been elucidated by Lucas (1988). He contended that the theoretical basis of education on economic growth is rooted in the endogenous growth theory. Endogenous growth economists believe that improvement in productivity can be linked to faster pace of innovation and extra investment in human capital. Endogenous growth theorists argue the need for government and private sector institutions and markets which nurture innovation to provide incentives for individuals to be inventive. There is also a central role for knowledge as a determinant of economic growth. Endogenous growth theory predicts positive externalities and spill-over effects from development of a high value-added knowledge economy which is able to develop and maintain a competitive advantage in growth industries in the global economy. The study is therefore anchored on this theory since it has been able to establish a relationship between education and economic growth.

2 LITERATURE REVIEW

A lot of studies have been carried out on the relationship between education and the economic sectors in Nigeria. According to Islamic (1998) education is considered as a long term investment that leads to a high productivity in a country in the future. In fact, economists argued that advanced education sector will certainly lead successfulness of a country's economic and social development.

Baro (1991) conducted a study on the link between educational expenditures and economic growth in Nigeria. The study found a positive relationship between the growth rate of real per capital output and the level of school enrolment.

The study argued that an increasing rate of investment in human capital development would help to close the development gap between the developing and developed countries.

Ramirez, Renis and Stewart, (1997) employing cross country data investigated the channels through which human capital development affect economic growth and vice visa. The study asserted that economic growth may lead to human capital development and human capital development could also lead to virtuous or vicious cycles of economic growth. The study found that countries which promoted economic growth tend to achieve the vicious category while countries which favoured human capital development encounter the virtuous growth.

Leaning (2005) examined the relationship between human capital development and economic growth using data from Guatemala and found that a better educated labour force appears to have a positive impact on output growth.

Dorian (1997) employing a neoclassical framework estimated a structural growth model in which he included education and health as explanatory variables. The study found a positive relationship between economic growth and health. The relationship between education and economic growth was found to be insignificant.

Adebiyi and Oladele (2005) empirically investigated the relationship between public education expenditure and defence spending in Nigeria. The study employed the error correction mechanism and the vector autoregressive (VAR) models and found a negative trade – off between defence spending and public education expenditure. Analysis of the impulse response functions derived from the VAR model revealed that past public education expenditure shocks has a positive but declining relationship with current public education expenditure in the first two years after which it turns negative. Also the impulse responses showed that increase in defence spending will increase public expenditure available for education in the short-run. The study did not examine the causal link between the various levels of education and economic growth.

Babatunde and Adefabi (2005) examined the long-run relationship between education and economic growth in Nigeria using the Johansen co-integration technique suggest that there is long-run relationship between enrolments in primary and tertiary levels of education and the average years of schooling with output per worker. The study concluded that a well educated labour force possessed a positive and significant impact on economic growth through factor accumulation and on the evolution of total factor productivity.

Aighokhan et al (2005) analyzed the impact of education expenditures on human capital development. The study used historical data to establish the correlation between public education expenditure and human capital development in Nigeria and noted that insufficient and uncertain budgetary allocations to education have resulted in the deterioration of its impact on human capital development. Education spending as presented in the annual budgets were low and unstable during the period studied. The study did not analyse the channels through which education expenditure impact on human capital development.

Omotor (2004) analysed the determinants of federal government expenditures in the education sector in Nigeria using the ordinary least squares (OLS) methods. The study revealed that the trend in education expenditure in Nigeria is unstable which reflects the instability in government earnings. Government revenue was the only significant determinant of education expenditures as revealed by the results of the regression. The study recommends a diversification of the sources of funding education so as to reverse the unstable trend in that sector.

Owoeye and Adenuga (2005) investigated the relationship between expenditures on education and health, and economic growth. The study estimated a parsimonious error correction model and found that expenditures on education impacts positively on economic growth. The study recommended that more resources should be channeled towards the level of education where the benefits are higher for the individual and the society at large. The study did not investigate the direction of the link between educational expenditures and economic growth. Following Adebiyi and Oladele (2005), this study sought to examine the causal relationship between federal government spending on education and economic growth using Nigerian data.

Emphasizing on how educational sector has been very successful as it plays important roles in achieving national development agenda and contributes to a country's economic growth. Shema (1971) has listed some direct benefits that country's gain from education. This includes increase in economic growth and literacy rate. In addition, education could also improve efficiency of income allocation as well as labours' mobility and transfer in accordance to work demand of trained workers.

3 RESEARCH METHOD

The study adopted a descriptive survey design. The study was conducted in Anambra State of Nigeria. The population of the study comprised 720 senior staff of Nnamdi Azikiwe University, Awka and Chukwuemeka Odumegwu Ojukwu University, Uli. The sample of the study consisted of 500 respondents randomly drawn from the two institutions using simple

random sampling technique. An instrument titled “Appraisal of Educational Sector and Economic Sector Questionnaire” (AESEQ) was employed to gather data. The AESEQ was given to two experts drawn from Faculty of Education, Chukwuemeka Odumegwu Ojukwu University, Uli. These experts observed that the number of items were too many and should be reduced. They also observed that the items in section which were not related to the study should be removed.

Based on the criticisms and suggestions of the experts, the final copy was produced and used to collect data. The reliability of the instrument was also determined using test re-test method. Copies of the instrument were administered on 20 staff of Enugu State University randomly from Faculty of Social sciences. Three weeks later, the same instrument was re-administered on the same number of senior staff (20) on the pretext that the former got lost. Thereafter the scores of the first and second administration were correlated and computed using Pearson Product Moment Correlation Coefficient (r) and this yielded a value of 0.79. This score indicates that the instrument was reliable.

The response format adopted was a four point scale of strongly agree, agree, disagree and strongly disagree. The responses were weighted as follows SA = 4 points, A = 3 points, D = 2 points and SD = 1 point.

The instrument was administered on the respondents by the researcher during the monthly meeting of Academic Staff Union of Nigeria Universities, Awka in July, 2015. Out of the 720 copies administered only 500 were duly completed and retrieved.

The data were statistically analysed using mean and standard deviation. The cut off score for decision making is 2.5 In other words, scores between 2.5 and above is accepted whereas score below 2.50 is rejected.

4 RESULTS

Research Question I: What impact has the education sector on the economic sector in Nigeria? This research question is answered by the data in table I.

Table I: Mean and Standard Deviation Responses on the Impact of Education on Economic Sector in Nigeria (N=500)

S/N	Item Description	X	Sd	Decision
1.	Education provides the manpower needs of the nation	3.34	0.97	Agree
2.	Education has made the exploration and exploitation of natural resources possible	3.0	1.08	Agree
3.	It has helped to develop individual skills and competencies	2.93	0.93	Agree
4.	It has led to increase in productivity	2.81	0.80	Agree
5.	It has helped to improve efficiency of income allocation	28.3	0.91	Agree
6.	It has increased labour income	2.90	0.84	Agree
7.	It has helped in the development of countrys’ economic and social development	2.93	0.98	Agree
8.	It has increased the countrys’ gross domestic product	2.94	0.97	Agree
9.	Education has helped individuals to become entrepreneurial	2.95	0.97	Agree
10.	Education provides employment for individual citizens	2.87	0.98	Agree
11.	Education has revolutionalized science, technology and agricultural sectors	2.24	1.09	Disagree
12.	It has helped to reduce the poverty level of many Nigerians	3.06	0.89	Agree
Grand x score =		31.97	11.67	
Av. Grand x =		2.66	0.97	

Table I shows the responses of the respondents on the impact of education on the economic sector in Nigeria. The result of data analysis showed that the respondents recorded a grand mean score of 2.66 which is above the criterion score of 2.5. This indicates that education has great positive impact on the economic sector in Nigeria.

Research Question 2: What impact has the economic sector on the educations sector in Nigeria?

Table II: Mean and standard deviation on the relationship between economic sector and education sector in Nigeria.

S/N	Item Description	X	Sd	Decision
1.	A nation with buoyant economy will produce both educational programmes	3.35	0.78	Agree
2.	Human capital development is a bye product of education sector	3.50	0.63	Agree
3.	National economic growth and development is dependent in a ability of the education sector to develop the skills and knowledge of individual citizens.	3.00	1.00	Agree
4.	Unemployment rate is reduced when the citizens of a country are well educated	1.64	0.78	Disagree
5.	Innovation is meaningless in the absence of knowledge and education	3.01	0.93	Agree
6.	The parameters of production could be expanded based on educations sector	3.15	1.05	Agree
7.	Human capital is accumulated through educations sector	3.08	0.91	Agree
8.	The poverty level of a country is measured by the level of her educational development	2.81	0.99	Agree
9.	Poverty reduction is achieved through The education sector	1.54	0.80	Disagree
10.	Attaining better standard of living has a link with the education sector	3.35	0.78	Agree
11.	Mobility of labour is possible if one has a sound education			
12.	Increase in per capital income is dependent on education sector	(2.91)	1.01	Agree
Grand x score =		31.5	9.57	
Av. Grand x =		2.63	0.79	

Table 2 shows the impact of economic sector on the education sector in Nigeria. The respondents recorded an average mean score of 2.63 and a standard deviation of 0.79 since the score obtained (2.63) is greater than the criterion mean score of 2.50, it implies that the economic sector has great positive impact on the education sector.

Research Question 3: What is the Relationship between Education Sector and Economic Sector in Nigeria?

Table 3: Pearson (r) on the relationship between education sector and economic sector

Source of variation	$\Sigma X, \Sigma Y$	$\Sigma X^2, \Sigma Y^2$	$\Sigma x Y$	r	Decision
Education Sector (x)	$\Sigma X = 37.45$	$\Sigma X^2 = 101.57$			Positively Correlated
Economic sector (y)	$\Sigma Y = 34.41$	$\Sigma Y^2 = 98.13$	98.13	0.98	

Table 3 shows the relationship between education sector and economic sector. The result of the analysis between the two variables which is $r=0.98$ indicates a positive relationship.

4.1 Discussion of results

The result of this study showed that education has great positive impact on the economic sector of Nigeria. The study further revealed that education produces the manpower needed in government establishments and industries. The result of this study agree with Babatunde and Adafabi (2005) who argued that education at all levels contributes to economic growth through imparting general attitudes and discipline and specific skills necessary for a variety of workplaces. They added that education contributes to economic growth by improving health, reducing fertility and possibly by contributing to political stability.

The outcome of the study that education increases productivity was supported by Onwuka (2015) who asserted that people with more education have the capacity to expand the parameters of production and as a result earn more wages. By extention if greater numbers are educated, average income would rise, thereby encouraging savings needed for investment and growth (Pritchelt, 2001). There is no gainsaying the fact that education raises productivity and this explains the importance attached to educational activities worldwide. The revolution currently underway in developing countries in the context of having their people educated attests to this fact. The findings of the study revealed that the economic sector has positive impact on the education sector. The findings also indicates the direction of causation between education development and economic growth. The outcome of this study agree with the studies of Omojinite (2010) who asserted that there is a great link between education sector and economic sector and that one cannot do without the other.

4.2 Implications of the Study

In view of the findings of the study, the implications of the study are highlighted. The study indicates that education sector has positive impact on the Nigerian economy. This implies that both the individuals and governments should invest more into education so as to boost the economy and achieve overall development. The relationship between education and the economic sector also implies that the education sector should be given a priority in planning and national budget in view of its relevance to the economy.

The findings also implies that education administration should champion the renew of the school curriculum to make education more relevant to the needs of the society. It also implies that educational planners and administrators should assist in formulating appropriate plans and strategies for the education sector.

Conclusion

The study examined the impact of education on the economic sector of Nigeria. The study was a descriptive survey that sort the opinion of respondents on the subject matter. It was guided by one research question. The population comprised 256 secondary schools in Anambra State. The sample consisted of 200 schools principals randomly drawn from the 256 secondary schools in the study area. The result of the data analysis revealed that the impact of education on the economic sector was significant but there is still room for improvement. The study showed that education is the antidote to poverty. It is also a key to sustainable development.

The study draws a link between education and economy and concluded that the economic growth of any nation is determined by the quality of the educational system.

Recommendations

Based on the findings of the study, the following recommendations are made.

1. The Federal, State and Local governments should budget more money and invest more resources in education.
2. There is need for the government to make education compulsory at all levels. This will enable the citizens contribute towards national development.

3. The churches, voluntary organizations and non-governmental organizations should join hands with the government in providing educational facilities and equipment.
4. The governments and traditional rulers should organize seminar and conferences where the need for education will be emphasized.

References

- Abbas, Q & Foreman-Peck, J. (2007). *Human capital and economic growth*, Pakistan, 1960-2003, NRPDU, projects by Higher Education Commissioner (HEC) of Pakistan.
- Adebisi, O. & Oladele, A. (2005). Achieving economic growth in Nigeria. *Journal of Development economics*. 13(8), 38-49.
- Aigboke, C. (2005), Economic growth and human development center discussion paper No. 201.
- Babatunde, M.A. & Adefobi, R.D. (2005). Long run relationship between education and economic growth in Nigeria; Evidence from the Johansen's co-integration approach. Being a paper presented at the regional conference on education in West Africa; constraints and opportunities, Dakar, Senegal November 1st – 2nd, 2005.
- Baro, R.J. (2001). Human capital and economic growth. *American economic review*. 91(2), 12-17.
- Dorian, S.K. (1997). Education and health in an effective-labour empirical growth model. *The economic record*. 73 (3), 314-328.
- Harbison, H. (1973). *Human resources as the wealth of nations*. New York: University Press.
- Loaning, J.L. (2005). Effects of primary, secondary, and tertiary education; evidence from Guatemala policy research working paper. 3,6-10.
- Lucas, R.E. (1988). On the economic development. *Journal of Monetary Economics*. 22,3-42.
- Motor, D.G. (2004). An analysis of Federal Government expenditure in the education sector of Nigeria: Implications for national development. *Journal of social Sciences*. 9(2), 105-110.
- Omojimi, B.U. (2010). Education and economic growth in Nigeria, A granger causality analysis. *African Research review*, 4(3a), 90-108.
- Onwuka, E.C. (2015). The Nigerian State and human capital accumulation for sustainable development; A value appraisal, being a lead paper presented at the 8th biennial national conference of the school of Education, Nwafor Orizu College of Education, Nsugbe held on 17th June, 2015.
- Owoeye, S. & Adenuga, N. (2005). Human capital and economic development; An empirical analysis of a developing economy (1970-2000). A working paper, University of Ado-Ekiti, Nigeria. [www.http://paper.ssm.com/so131papercfm?Abstract-ed=726748](http://paper.ssm.com/so131papercfm?Abstract-ed=726748) (accessed February 10,2015)
- Pritchett, L.C. (2001). Where has all the education gone? *The World Bank economic review*. 15(3), 567-398.
- Romer, P.M. (1990). Endogenous technologies change. *Journal of Political Economy*. 98, 571-5102, statistics, 52,169-210.
- Schultz, T.H. (1962). Reflections on investment in man. *Journal of political economics*. 70(5),1-8.

- Sheina, P.N. (1971). Education and economic growth in Nigeria. *Journal of comparative Education*. 8(30), 47-59.
- Stewart, R. (1997). *Economics education and national development*. Britain: Oxford press.
- Solow, R. (1957). Education and economic growth in India. *Journal of Economics Review*. 6(2), 29-35.
- Summers, D. (2008). *Longman Dictionary of contemporary English*. England: Pearson Education Limited.
- Ukeje, O. (1993). *Educational development in Nigeria*. Owerri: Totan Publishers.
- UNESCP, (2000). Education for all by 2015, declaration adopted at the Dakar World Education Forum 2002, available online at <http://www2.unesco.org/wef/en-press/relea-dnk-5427-18h.shtm>.