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Human Capital Developments-Economic Growth Nexus in Developing Countries: Further Empirical Evidence from Nigeria.

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Sete I. Peter (Ph.D) & Usman Abbas

Abstract

This study examined the impact of human capital development on economic growth in Nigeria. The period covered in the study is between 1980 and 2008 using time series data obtained from the Central Bank of Nigerian Statistical Bulletin. A Bivariate Regression Model using econometric analysis of OLS was deployed for the data analysis and the findings revealed a positive relationship between human capital development (proxy by education and healthcare expenditure) and economic growth (proxy by real GDP). The results showed that expenditure on health and education individually had significant impact on economic growth. In view of the findings, the study strongly recommended, among others issues that the Federal Government should play primary role of co-ordination of planning and provision of organizational guidelines in these two sectors for achieving efficiency. The study recommended further that the Federal, State and Local Governments should increase their educational funding base on the recommendation of the United Nations Educational, Scientific and Cultural Organization (UNESCO) that at least 26% of the annual budget should be allocated to the education sector, and that education curriculum should be restructured so as to focus on job creation and not job seekers. Lastly, the government should exercise the political will to determine how education in Nigeria should be funded.

Keywords: Economic Growth, Human Capital, Nigeria, Ordinary Least Square

1.0 Introduction

Achieving rapid, sustainable and pro-poor economic growth and development has often been stressed as a macroeconomic oriented development policy objective of all countries of the world and Nigeria inclusive. This seeming consensus reflects a new trend in development policy theorizing which sees investment in human capital as a catalyst, engine of economic growth and a veritable mechanism for reducing poverty

in all regions of the world. This is because, empowerment of the citizenry (human capital development) results into long-term growth of the economy and hardly countries of the world achieve high height in their growth pyramid without substantial investment in human capital.

Investment in socio-economic services like Health and Education, are undoubtedly apparent components of human capital development and contributors to increasing human welfare. Thus, the analysis of investments in human capital through the channel of Health and Education is unified in the human capital approach to economic growth. It therefore means that low investment in these aspects of human capital will further retard the already low growth rate of income, which will consequently imply a vicious circle of poverty or underdevelopment. Again, it is not hyperbolic to state that human capital of any nation is a key in determining the structure and pace of economic, social and political development of such society. This is because other inputs of production are themselves useless without human capital. It is therefore reasonable to suggest that economic development strategies should rely heavily on the creation and development of a functional human capital with necessary technical skills for participation in the process of transforming an economy's productive base (Angbas and Obansa, 2010).

While acknowledging the fact that human capital development complex and whose contribution to growth and development may be inexact, investment through education, on-the-job training, health and nutrition are critical. Knowledge augments labour and makes it to be effective in the production process. The pursuit of quality healthcare and sound educational system are basic objectives of development; health is central to well being as it increases production and serves as basis for successful education, and education on the other hand guarantees a satisfying and rewarding life as it multiplies lifetime income streams for the recipients of such education. Thus, investment in education and health are treated as vital inputs in aggregate production function of any economy of the world. In countries like the USA, Britain, and Japan, human capital formation constitutes significant proportion of the overall strategies for socio-economic development. In Nigeria, however, the drive at human capital development had not acquired such momentum.

Significantly, progress made has been less rapid to markedly withstand Nigeria's dependence on foreign expatriates for the operations of many vital functions in her economy. In view of these, early attempts at human capital development through educational planning started with the Ashby Commission of 1960 on "investment in education" which led to the increase in the numbers of Universities in the country today. Prior to the aforementioned Ashby Commission's report was the report of the Federal Advisory Committee on technical education and industrial training in 1957 but the impacts of the committee were short-lived as appreciable changes have not been observed.

In the recent times, however, the Federal Government reform agenda is anchored on the National Economic Empowerment and Development Strategy (NEEDS) and Vision 20:2020 documents. The NEEDS document recognizes the centrality of human capital development in accelerating the pace of sustainable economic growth in Nigeria. It was described as a vital transformation tool. Therefore, the strategy aims at empowering the citizenry to acquire skills and knowledge that would prepare them for the world of work. On this note, a country that underrates the critical roles or the significance of people in its development plan will be perpetually ineffective. In the past, much of the planning in Nigeria was centered on the accumulation of physical capital for rapid growth and Development, without recognition of the important role played by human capital in the development process (Oguijiuba and Adeniyi, 2004). Most periods in late 1970s and early 1980s witness massive economic reconstruction after the civil war. Then, the oil boom stimulated industrial, commercial enterprises and various services. However, the Nigeria's social sector (in particular education and health) was not able to keep up with the main power demand nor could it produce the required human capital in the labor force. One of the most obvious reasons for the poor performances of health and educational system is poor finance. Education at all levels is poorly funded. The budget allocation to education reached its peak of 11.12% of the total budget in 1999 and has consistently decline since then to 5.9% and 1.93% in 2002 and 2005 to the rest years respectively (UNDP, 2009). The problem was not only that of declining budgetary allocation to education which fell short of UNESCO recommendation of 26%, the actual expenditure level fell short of what were

allocated. The phenomenon of strikes, dilapidated school structures and brain-drain has further crippled the educational system.

Similarly, the poor funding of the health sector at the Federal level can be seen from the amount in budget allocation to the sector by various governments. The budget allocation to the health sectors as a percentage of the total budget was 1.3% in 1990, 5% in 1997 and 4.3% in 2003 (UNDP, 2009). The poor funding of the health sector has impacted negatively as indicated by the people's limited access to health facilities and the quality of service delivery. For example, life expectancy at birth is 43.4%, population without sustainable access to an improved water source is 52% by 2004 according to UNDP. The health sector across the country lack drugs, facilities, regular power supply, as well as regular brain-drain in the sector. Oni (1991) asserts that policies in the health sector are determined mainly by political considerations rather than the overall interest of the people. No consideration seemed to have been made on how the free health services would be funded and maintained.

Indeed, the Nigeria's health is believed to be worsening in the recent times. The overall effect is that the numbers of hospitals in Nigeria are insufficient relative to the number of people that may be in need of healthcare (Adeniyi and Ejembi, 2001) and Health Facility-Population ratio, an indicator of healthcare accessibility in Nigeria is put at 1: 5928 to indicate that 1 health facility serves 5928 people (NBS, 2011). These scenarios on the poor state of education and health sector in Nigeria have logically left some important questions that beg for answers. Some of these questions are: what is the impact of investment in education and health on Nigerian economic growth? What are the necessary policy rules that the stakeholders in Nigeria will take into consideration so that the pace of growth in human capital accumulation will increase?

These questions are common to many countries of the world and attentions of empirical scholars and policy makers alike have been caught in this direction; hence there are extant views of other on the contribution of human capital to economic growth¹¹. For instance, Olomola, (2004),¹²

¹¹ Some of these studies are reviewed in the literature.

Azariadis and Drazen, (2000), and Acemoglu, (1998), among others provided empirical support for the conclusion that human capital formation was among the factors that significantly affected the aggregate rate of economic growth in the 1990s. In relation to recent growth models, these authors concededly conclude that raising the general level of education, health and nutrition interacts positively with other macroeconomic variables and largely permit countries to accelerate their productively growth rate and narrow the relative size of per capital real income gaps. In the context of Nigeria, despite some of these empirical conclusions, ranging arguments both in theory and empirics still persist regarding the extent of contribution of human capital to economic growth and development, and to the best knowledge of the authors, empirical evidences that address these issues, especially in the Pre-Global Financial Crisis era which is greeted with gross inadequacy of public investment in health and education are relatively scarce.

Consequently, this study empirically contributes to knowledge by applying a bivariate regression modeling with the econometric technique of Ordinary Least Square method to some set of time series data on Real Gross Domestic Products (RGDP) and Government Expenditure one education and health for the period of 1980-2008.¹² This is done to enable the authors estimate the empirical relationship and to estimate the size of the impact of investment in human capital on economic growth in Nigeria. Foreshadowing our empirical results, this study found positive relationship between investment in human capital and economic growth in Nigeria.

Following the above section, relevant theoretical and empirical issues as found in other studies were reviewed in section 2. Methodological and data issues are detailed in section 3, results and discussions of the empirical results are contained in section 4, while section 5 concludes the study with policy recommendations.

¹² Details on methodological and data issues are sufficiently defined in section 3 of this study.

2. Literature Review

2.1 Conceptual Clarification

Human capital has been conceptualized in various ways. For instance, the United Nations Economic Commission for Africa (UNECA, 1990) sees human capital as the stock of knowledge, skills, attitudes, physical and managerial effort required to manipulate physical capital, technology, and land among other things, to produce goods and services for human consumption. In this view, human capital development is often referred to as human capital formation, which refers to the process of acquiring and increasing the number of persons who have the skills, education and experience that are critical for sustainable growth and development of a country (Dauda, 2010). Also, Okojie, (1995) conceptualized human capital formation which is synonymous with human capital development to be associated with investment in man and his development as a creative and productive person. It is a continuum, a continuing process from childhood to old age, and a must for any society or enterprise that desires to survive under the complex challenges of a dynamic world. One of the earlier emphases on the concept of human capital and its development process was Schultz (1961) who identified strategies for human resource development. These include the following: (i) investment in health facilities and services, broadly conceived to include all expenditure that affect the life expectancy, strength and stamina, and the vigour and vitality of the people; (ii) on-the-job training, including old-type apprenticeships organization by firms; (iii) formally organized education at the elementary, secondary and higher levels; (iv) study programme for adults that are not organized by firms, including extension programmes notably in agriculture; (v) migration of individuals and families to adjust to changing job opportunities development. In fact the opinion of Meier (1970) is similar to the position of Schultz. To him, human resource development concerns the two-fold objective of building skills and providing productive employment for non-utilized or underutilized manpower. This process emanate from the process of investment in man in the form of education and training which are known to be institutional mechanisms for enhancing people's knowledge, skills and capabilities (Dauda, 2010).

On the basis of the foregoing, one could conceive human capital as the totality of efforts or activities geared toward making the human person useful to him/herself, family, and the society at large. In the same vein, Essien (2000) sees it as a well thought-out plan and action aimed at the developing and grooming of human beings so as to present them fit and qualified to be productive to themselves, in particular, and to the entire society, in general. Human capital development involves the provision of formal and non-formal education that would broaden the minds of the individuals and acquaint them with various utilitarian skills to enhance their expertise in different fields of human endeavor. In addition, it has to do with the provision of quality health care delivery systems that would keep the people fit for productive functions in the economy (Monimah, 2010). Thus, any activity directed at human development is worthwhile.

2.2 Theoretical Issues

How to explain the phenomenon of economic growth has been one of the most enduring questions in growth economics. The traditional neo-classical growth model, developed by Robert Solow and Swan in the 1957 sees output of an economy to grow in response to larger inputs of capital and labor (all physical inputs). To these authors, non-economic variables, such as human health, skills, knowledge, etc., have no function in the growth process of an economy. Thus, this exogenous growth model does not explain why countries with little capital and labor grow more than countries with abundance of these resources. To address this, new theory described as the endogenous growth theory emerged in the 1980s, particularly due to the works of Romer (1990) and his associates in response to the postulations of the exogenous theorists. They argued that economic growth and development in most fast developing economies, particularly, those of the East Asian developing countries, where the economies have continued to grow for well over three decades, demonstrated quite the contrary. The argument is that, it is not only technology, which is the main driving force accountable for maintaining such high growth performance in the economies, but that there were other factors which are outside the realm of the neoclassical growth model.

Romer (1986) in his work titled “Increasing Returns and Long Run Growth” broadened the concept of capital to include human capital. He argues that the law of diminishing returns to scale phenomenon may not be applicable to human capital. The theory holds that if a firm or an economy which invests in capital (physical) also employs educated and skilled workers who are also healthy, then not only will the labor be productive, but it will also be able to use capital and technology more effectively. This will lead to a “neutral” shift in the production function and, therefore, there can be increasing rather than decreasing returns to investments. This means that technology and human capital are both endogenous to the system. The basic assumption of the endogenous growth theory is that policy measures can have an impact on the long-run growth rate of an economy through investment on education and research and development. These are further believed to increase the growth rate of the economy by increasing the incentive to innovate. For instance, Lucas (1988) identified two sources of economic growth to include human capital accumulation due to education investments and technological progress due to learning-by-doing. In other words, education and learning-by-doing improve the knowledge and skills of labor in the production sector.

The consensus believes of the endogenous economic growth theorists is that research and development (R&D) is the key to growth and development of an economy or a firm. R&D generates new ideas or new technologies that are not common in the society. Whenever there is technological change in a given productive process, those with education or greater skills are faster in adopting the new technology (Eicher and Penalosa, 1999). Further, in this theoretical consideration, the theorists here believe that investment in education, especially, vocational education is an investment in human resources of the society is central to growth and development. On this note, Aharonovitz (2007) stressed that if managers of one firm are trained, they will become heads of production units and train more managers who will, in turn, head other production units of new firms. Here, human capital development is therefore a continuous process of development of human beings. As this persists, long-run economic growth will be sustained, and this is hoped to reduce poverty and improve standard of living in the society.

In sum, the literature on endogenous growth theory has stimulated economists' interest in the empirical evidence available from cross-country comparison bearing on the main level of relationship between human capital formation and the growth rate of real output. The growth models that view human capital as a simple input to production, predict that growth will be positively associated with changes in the stock of education. Thus, these endogenous models that view the potential role of human capital in the development of innovations and its diffusion throughout the economy imply that it is the stock (rather than the flow) of human capital that affects the overall productivity growth rate of the country.

2.3 Empirical Issues

Earlier studies on the effects of human capital on growth, such as Mankiw, Romer and Weil (1991) and Barro (1991), were based on data sets pertaining to a very diverse array of (more than 100) countries during the post 1960 era. They used narrow flow measures of human capital such as the school enrolment rates at the primary and secondary levels, which were found to be positively associated with output growth rates. Barro (1991) empirically reported that the process of catching up of developing countries with the developed ones was firmly linked to human capital formation relative to their GDP. Barro and Sala-i-martin, (1995), among many others, included life expectancy and infant mortality in the growth regression as a proxy of tangible human capital measures derived from school inputs. Their finding is that life expectancy has a strong, positive relation with growth.

A survey by Krueger and Lindahi (1998) from the econometric studies of cross-country growth equations shows more robust results, based on Lucas' model of 1998. To them, when allowances are made for measurement errors, the change in stock measures of education is positively correlated with economic growth. These authors found that investment in secondary and higher education have greater effect on growth; compared with primary education and the impact of female education on growth seem insignificant or even negative. Motivated by the fact that schooling has increased dramatically in the last thirty years at the same time that the "productivity slowdown" became manifest in many of the higher income economies, Bils and Klenow (2000) test for the direction of causality

between economic growths and schooling. They found that the channel of causality running from schooling to growth is too weak to explain the strong positive association found by Barro (1999), while the direction of causality running from "growth to schooling" is strong and capable of generating a coefficient of the magnitude reported by Barro. However, this present study only examines the linear relationship and impacts of investment in health and education on the level of economic growth in Nigeria.

In a related study, Gupta, (2001) found that public spending on education and health through its positive effects on the formation of human capital can boost economic growth while promoting equity and reducing poverty. This is more so in less developed countries (LDCs) where the private sector is less active as a result of shortage of private capital and government attempts to reconcile conflicts between private social interests by enhancing the allocation of resources where private interest is minimal or absent thereby responding to social economic and infrastructural needs of the nation. Burnett et al (1995) show that massive investment in both primary and lower secondary school significantly explained the development 'miracle' experienced in East Asia.

Grammy and Assane (1996), using varied forms of human capital investment, such as school enrolment, human development and economic liberty index evidently pointed out that human capital formation propels growth in per capita income. Its positive contribution to growth was statistically significant at 1 percent. Besides, the inclusion of the variable reduces the bias often associated with growth models that exclude human capital investment and, hence, the explanatory power of the model. In contrast, Benhabib and Spiegel (1994) employed a standard growth accounting framework to study the contribution of human capital to economic growth, they found a negative relationship between initial per capita income and growth. Similarly, Pritchett (2001) found a negative impact of education on growth. These evidences are incredible and have bearing to the realities in developing countries, including Nigeria; this present study however did not disaggregate the level of government

expenditure on education and health in human capital development into private and public investment.

There are large numbers of empirical studies that confirm the strong association between health and economic growth. For instance, Blooms and Sachs (1998) provided empirical evidence on the relationship between health variables and economic growth rates and found that health variables play a significant role in determining economic growth rates. They showed this by investigating cross-country data between 1965 and 1990, using a basic growth model, and they found that an increase of life expectancy by one percent accounted for an acceleration of GDP per capita growth by over 3% per annum. In addition, health and demographic variables explained over half of the differences in growth rates between Africa and the rest of the world over that same period.

Ramirez, Ranis, and Stewart (1997) explored two way linkages between economic growth and human development empirically with the help of cross-country statistics. Their study argues that public expenditures on health and education represent especially important links in determining the strength of the relationship between economic growth and human development. In other developing countries, Abbas (2001) analyzed the impacts of human capital on economics growth for Pakistan and Sri Lanka. The results of their empirical analysis show that primary schooling enrolment rates has negative while secondary and higher schooling enrolment rates has positive and significant impact on economic growth for both countries in the sample.

In the case of Nigeria, there are extant studies that attempt providing quantitative evidence on the linkage between growth and human capital development. For instance, Akangbou (1983) and Mbanefoh (1980) determine the social and private returns to the different levels of education- primary, secondary and university, using cross-sectional data. On the basis of the positive rate of returns often computed, inference is made about the positive role of human capital on economic growth. Odusola (1998) using ordinary least square technique found that human capital, proxied by real capital and recurrent expenditure on education, is positively related to growth, although the relationship is weak. Adamu (2003) empirically assess

the impact of human capital formation on economic growth in Nigeria between 1970 and 2000, using cointegration and error-correction mechanisms. The results indicate that investment in human capital in the form of education and training can lead to economic growth because of its impact on labour productivity.

Chete and Adeoye (2003) and Uwatt (2003) explored the association between human capital investment and economic growth in Nigeria using various methodologies such as Granger causality tests, Vector Autoregressive, Variance Decomposition Analysis, Impulse Response Function, Cointegration and Error-correction among others and showed, in general that human resource development does not only contribute positively to economic growth in Nigeria, but its impact is strong and statistically significant; but Chete and Adeoye found a significant mismatch between the manpower needs of the country and the skills turned out by the educational system. As stressed by Dauda, (2010), the finding of Ayara (2003) is contrary to the conventional wisdom. Ayara's study observed that the growth of educational capital shows a significant negative effect on economic growth in Nigeria. This however does not mean in total that human capital investment through education is rather a curse than blessing for Nigeria.

On this note, and in view of mixed findings in the literature, this present study shows further empirical evidences on human capital development-economic growth nexus in Nigeria, especially in the pre-global financial crisis episode since it is the stock (not flow) of human capital investment that will significantly lead to growth of the economy.

3.0 Data Description and Methodology of the Study

The empirical data employed in this study are secondary in nature. They include annual real GDP (RGDP), which is used as a proxy measure of economic growth in Nigeria, Government Expenditure on Education (GEE), and Government Expenditure on Health (GEH).¹³ These data span from

¹³ GEE and GEH are considered in this study as the measures or proxies Human Capital Development

1980 to 2008 and the choice of this time frame is premised on the fact this period represents a time path before the occurrence of Global Financial Crisis of 2007/2008; and that even if the crisis will affect the extent of investment in human capital, one can examine the impact of investment in these proxy-variables of human capital development on economic growth in Nigeria.

3.1 Model Specification

In evaluating the impact of human capital development on economic growth in Nigeria, the study specified empirical bivariate linear regression model of the form:

$$RGDP = \alpha_0 + \alpha_1 GEE + \alpha_2 GEH + \mu \quad (1)$$

Where:

$RGDP$ = Real Gross Domestic Product

GEE = Government Expenditure on Education

GEH = Government Expenditure on Health

α_0 = Intercept term

α_1 and α_2 = Partial Slopes or coefficients of the regressors or exogenous parameters of the model

μ = Error term

3.2 Techniques of Data Analysis

The type of econometric technique of data analysis employed in estimating the parameters of the specified model in equation (1) is Ordinary Least Squares (OLS). The justification for choosing this method is that OLS has desirable properties commonly dubbed as BLUE properties. This acronym represents refers to OLS as the "Best, Linear, Unbiased, and Efficient Estimator". These properties ensure good inference making, and efficient

and non-misleading conclusions drawn from the results of the estimate of OLS through various diagnostic tests such as t-statistic, coefficient of multiple determination (R^2), adjusted R^2 , F-statistic, Durbin-Watson (d) statistic etc. These sets of statistics help us to ascertain the reliability and healthiness of the estimates of the specified model. After the estimation, the general theoretical expectation as reviewed in the theoretical issues about the sign, size, and significant of the parameters of the model is that all the explanatory variables will exhibit positive relationship with RGDP, which is the dependent or endogenous variable in the model. Thus, $\alpha_1 > 0$ and $\alpha_2 > 0$.

4.0 Results and Discussions

4.1 Empirical Results

To obtain the empirical results, the test of stationarity of the variables of the models was done to ensure that spurious regression that could yield invalid policy inference was avoided. All the variables, through the Augmented Dickey Fuller (ADF) test verified the data to be stationary at levels, I (0). Thus OLS was further applied to obtain the empirical evidences which are summarized in table 1.

Table 1: Regression Results

Variables	Coefficients	t-Statistics	Prob. Values
C	-1374489.	-1.917914	0.0662
GEE	100.2748	24.38323	0.0000
GEH	144.3073	9.011827	0.0000
R-squared	0.968376	Adjusted R-squared	0.935944
F-statistic	398.0836	Prob(F-statistic)	0.000000
Durbin-Watson stat.	1.943801		

Source: Computed by the Authors

4.2 Discussion of the Regression Results

From the estimated regression model above, we observed that the stated a priori expectation were fully satisfied. That is the coefficients of the explanatory variables (GEE and GEH) were observed to be positive, indicating that a unit change in their respective values, on the average, increased RGDP absolutely by 100.2748 units and 144.3073 units respectively. These show that there is a positive relationship between Government expenditure on Education and Health on Economic Growth in Nigeria for the period of time considered in this study.

The coefficient of multiple determinations (R^2) shows that about 97 percent of total variation in the dependent variable (RGDP) is explained by the changes in the explanatory variables of the estimated model. This implies that the estimated model has a good fit. The adjusted coefficient of determination ($\text{adj} R^2$) also shows that after taken into account the loss in the degree of freedom as a result of additional entry of explanatory variables in the model, that the estimated model has a good fit (i.e., adjusted $R^2=0.94$). The high value of the F-statistic (i.e., $F=398.0836$) indicates that the parameters of the estimated model are jointly or simultaneously statistically significant. Hence, inference from the estimated results could be taken as valid for policy sake.

The value of the Durbin-Watson (d) statistic (i.e., $d=1.94$), suggests the absence of autocorrelation. This is based on the decision rule which states that Durbin-Watson value close to 2 indicates the absence of autocorrelation. Here, the observed Durbin-Watson value of the estimated model is close to 2, implying the absence of autocorrelation in the estimated model. Thus, the forecasting power of the estimated model is more reliable in the absence of autocorrelation given the good explanatory power of the explanatory variables as evidenced by the high value of the adjusted R^2 .

On the specific performance of each of the exogenous variables, the slopes or coefficients of the explanatory variables (GEE and GEH) were found to be statistically significant. This is based on the decision rule which states that when the probability value (p) associated with a parameter is less than 0.005 (i.e., $p<0.005$), the parameter is said to be statistically significant;

otherwise, it is statistically insignificant. From the regression result obtained, we found that the probability (p) values of the explanatory variables (GEE and GEH) were respectively less than 0.005 probability value. Thus, indicating that government expenditures on health and education (GEH and GEE) impacted significantly on real gross domestic product (GDP) over the period of investigation.

5.0 Conclusions and Policy Recommendations

This study has empirically examined the impact of the relationship between human capital development and economic growth in Nigeria for the period of 1980-2008. The main theoretical underpinning of the study is endogenous growth framework in which investment in education and health are seen as inputs in the production function of the economy. The study employed linear regression model and the empirical results indicate that there is, indeed a linear relationship among government expenditure on education and health and economic growth. These explanatory variables signed positively as theoretically expected. It is evident that there is a strong impact that health and education exert on the level of growth. Indeed, Health and Education are capital-intensive enterprises, guaranteed sources of financing these medium of human capital development need to be identified and explored while proper policies and legislations have to be put in place to ensure their effective exploitation and utilization.

Frankly, to sustain economic growth through the medium of human capital connotes that occasional donations or grants from sources like the Petroleum Trust Fund and International Organizations are clearly unreliable, and stakeholders of Nigerian educational system and health sector cannot afford to plan its development on the basis of such occasional grants and donations without adequate planning predicated on short and long term budget estimates. Hence, if the major sources of financing these vital components of human capital are on such grants, the health and education sectors will continue to be littered with uncompleted and abandoned projects and programmes, and the various crises currently plaguing the education system and the health sector will aggravate. Thus, the policy implication of the findings is that government should place a high priority on human capital development. Intensified efforts should be

directed at increasing the performance of health and education sector which would engender economic development.

Specifically, this study recommends that there should be greater decentralization of educational management. The Federal Government should play primary role of co-ordination of planning and provision of organizational guidelines. Also, best plans for education and the health sectors cannot be implemented nor the best organizational structures properly and efficiently managed unless adequate funds are provided to support these sectors. Finally, the planning organization and management of education should be manned by technocrats to ensure rewarding investment in the national education and health sector.

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