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Human capital formation and economic growth in Nigeria: A time bound testing approach (1981-2014)

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ABSTRACT

This study explores the relative impact of human capital formation on economic growth in Nigeria from 1981 to 2014 using time series data of thirty four (34) years. The empirical analysis begins with an investigation of the stationarity of the variables specified under the model specification. Upon which the study used the ARDL bound estimation techniques to examine the existence of long run and short run dynamic relationship between human capital formation and economic growth in Nigeria. Our results show that a long run dynamic relationship exists between human capital formation and economic growth in Nigeria. It is therefore recommended that in order to achieve economic growth, policymakers should inter-alia increase not just the amount of expenditure made on the education sector, but also the percentage of its total expenditure accorded to the sector. Moreover, improve personnel development in the health care and ensuring adequate distribution of health facilities within the federation is essentially imperative.

Keywords: Human capital formation, economic growth, gross fixed capital formation, expenditures on health and education, life expectancy.

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INTRODUCTION

Several studies over the years have widely acknowledged the relevance of human capital development in the process of achieving meaningful and sustainable economic growth. In the absenteeism of sizeable investment in the development of human capital in any country, sustained economic growth and development is only be a mere wish and never a reality. Therefore, the place of human capital development in economic growth cannot be over emphasized.

Adedeji and Bamidele (2003) and Barro (1991) noted that human capital development is a key prerequisite for a country's socio-economic and political revolution. Among the generally agreed causal factors responsible for the impressive performance of the economy of most of the developed and the newly industrializing countries is an extraordinary commitment to human capital formation.

Human development as a concept as cited by Paul et al. (2017), refers to the process of acquiring and increasing the number of persons who have the skill, education and experience which are critical for the economic and political development of a country. It is thus associated with investment in man and his development as a creative and productive resource (Jhingan, 2012).

Schultz (1960) in an attempt to define human capital development categorized and developed human resources into six ways: (i) heath facilities and services: this involves all expenditure that affects the life expectancy, strength and stamina, vigor and vitality of the people, (ii) on-the-job training which includes old type apprenticeship organized by firms, (iii) formally organized education at elementary, secondary school and higher level, (iv) study programmes for adults that are not in agriculture, (v) it involves migration of individual and families to adjust changing job opportunity (factor mobility), (vi) finally, transfer or importation of technical assistance, expertise and consultants.

Within the Nigeria context, Paul et al. (2017) identified the reasons for Nigeria's unemployment, high level of poverty and unsustainable growth is that technical know-how and skills usually come with foreign physical capital which is yet insufficient for diverse and varied

requirements of Nigeria's growth and development. Furthermore, less developed countries such as Nigeria are characterized by economic backwardness which manifests itself in low labour efficiency, factor immobility, and limited specialization in occupations, deficient supply of entrepreneurship and customary values and traditional social institutions that minimize the incentives for economic change.

In addition, the economic quality of population remained low when there is little knowledge of natural resources that are available and where alternative production techniques, necessary skills, the supply of entrepreneurship and other opportunities to boost growth and development is inadequate. If development entails the improvement in people's standard of living - their incomes, health, education and general well-being - and if it also encompasses their self-esteem, respect, dignity and freedom of choice as seen by Amartya (1999), then the really important question about the human capital development is how does the Nigeria human capital development contribute to, or detract from the chances of Nigeria realizing the goals of development, not only for the current generation but also for the future generations. Furthermore, how will Nigeria be able to cope with the vast increases in the labour force over the coming decades? Will employment opportunities be plentiful? Or will it be a major achievement just to keep unemployment levels from rising?

Without an improvement in the quality of people or human factor, no progress is possible. The trajectory to progress is through schooling, learning, on-job-training, advances in health and growing stock of information of the economy which is apparently insufficient in Nigeria. Despite the immense efforts of government to improve the quality of people's life and also enhance human's capabilities, it has not yielded the desired results basically as a result of insufficient funds and policy somersault. In the recent time, there is an increase in investment on education at all levels but the returns are very low due to deficient supply of entrepreneurship. This study intends to fill this missing link.

It is against this backdrop that this paper is re-designed to empirically re-examine effect of human capital formation on the economic growth in Nigeria from 1981 to 2014 with the specific aim of investigating the long run and short run dynamic relationship between gross fixed capital formation, total government expenditures on education, health, life expectancy and economic growth in Nigeria, with the aim of providing policy recommendation that when implemented have the potential of improving the quality of life and the material well-being of the citizenry.

LITERATURE REVIEW

Several studies have attempted to empirically determine the relationship between human capital development and economic growth. Regardless of the model that was adopted, there seem to be a consensus that human capital development stimulates and growth. The interrelation between human capital investment and economic growth has a long history.

Briscoe and Wilson (2003) in their study examined the links between education and training in a country and its macroeconomic growth. An initial analysis of broad statistics for all EU Member states suggests a loose correlation between investment in human resources and growth in gross national product (GNP), but clear causal relationships are difficult to establish. Increased investment in education is shown to lead to higher productivity and earnings for the individual and similarly, such investment results in significant social rates of return. The returns on investment in vocational training are more difficult to demonstrate. This study reviews a large number of growth models that attempt to specify and quantify the GNP and human resource relationship. Wide differences are found in the model specifications, the quality of the data inputs and the results obtained. Other links between investment in human capital and economic performance are reviewed using diverse literature sources on human resource management, corporate market value, and company size and industry structure. The indirect impact of education on non-economic benefits is also examined in the context of the technological, spatial and environmental gains to society. It is concluded that, overall, the impact of investment in education and training on national economic growth is positive and significant. Some policy conclusions are drawn and directions for future research in this area are suggested. They also discovered that there is a spill over gain of investing in education to other sectors of the economy.

Barro (1996) argues that better health can reduce the depreciation of education capital, and thus increases the favourable effect of education on growth. This specifically explains the linkage between education and health in stimulating growth. Barro (2001) also examined a panel data of around 100 countries. It was observed from the study that expenditures are found to constitute a form of investment. It increases the individual's chances of employment in the labour market, and allows him to get returns and gives him opportunities for job mobility. It is well known and widely accepted that education plays a great and significant role in the economy of a nation, investment in education is critical for economic growth and social cohesiveness of any society.

Lustig (2001) examined a direct relationship between health and growth in Mexico uses 1970 to 1995 data and uses life expectancy and mortality rates for different age groups as health indicators. He observed that health is responsible for approximately one-third of long term economic growth. He considered health to be an asset with an intrinsic value as well as instrumental value.

According to him, good health is a source of wellbeing and highly valued throughout the world.

Musibau and Rasak (2005) investigate the long run relationship between education and economic growth in Nigeria between 1970 and 2003 through the application of Johansen Cointegration technique and Vector Error Correction Methodology. It examines 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 Johansen Cointegration result establishes a long run relationship between education and economic growth. A well educated labour force appears to significantly influence economic growth both as a factor in the production function and through total factor productivity. It was discovered that there is a long-run relationship between education and economic growth in Nigeria. They also found out that a long-run effect of a 1 percent increase of average years of schooling on output per worker while keeping the other variable constant is approximately 0.86 percent while the long-run elasticity of capital is 0.139 percent.

Bakare (2006) investigated the growth implications of human capital investment in Nigeria using the vector autoregressive error corrections mechanism. The study revealed that there is a significant functional and institutional relationship between the investments in human capital and economic growth in Nigeria. It was revealed that 1% fall in human capital investment led to a 48.1% fall in the rate of growth in gross domestic output between 1970 and 2000.

Dauda (2010) examined investment in education and economic growth in Nigeria using annual time series data from 1977 to 2007. The paper employs Johansen co-integration technique and error correction methodology. Empirical results indicate that there is a long-run relationship between investment in education and economic growth. The main variable of interest, the growth rate of educational expenditure had positive and significant effect on economic growth in Nigeria. The result indicates that educational investment plays a crucial role in developing an economy and it enhances growth in the nation's income. The coefficient of growth of gross fixed capital formation has positive and statistically significant effect on the Nigerian economy.

Babatunde and Afolabi (2005) measured the long run relationship between education and economic growth in Nigeria between 1970 and 2003 by applying Johansen co-integration method correction model and vector error model. The findings reveal that there is a long run relationship between education and economic growth there by laying emphasis that a well educated labour force appears to significantly influence economic growth both as a factor in the production function and through total factor productivity.

Adenuga and Akpan (2007) examined the relationship between economic growth and human capital development using Nigerian data from 1970 to 2003. They applied co-integration analysis incorporating the Error Correction Mechanism and found that investment in human capital through the availability of infrastructural requirements in the education sector accelerate economic growth. This study concludes that there will be no significant economic growth in any economy if there is no human capital development.

Lawal (2011) examined the relationship between education and economic growth. The study stressed that investment in quality and quality of Education would boost Human capital and bring about growth and sustainable economic development. Ordinary Least Square technique was used to estimate the model of the study. Time series data were collected between 1980 and 2008, and ordinary least squares technique was used to estimate the model. The findings showed that there is direct relationship between investment in education and economic growth in Nigeria. The growth model also indicated that to include more than one economic sector and to consider technology, spillover across sectors. It was discovered that education investments have direct and significant impact on economic growth in Nigeria. It was therefore recommended that government at all levels should increase their funding on different segments of education in the country.

Jaiyeoba (2015) also investigated the relationship between investment in education and health in Nigeria, using time series data from 1982 to 2011. The paper employed trend analysis, the Johansen cointegration and ordinary least square technique. Empirical findings however indicated that there is a long-run relationship between government expenditure on education, health and economic growth. The variables: health and education expenditure, secondary and tertiary enrolment rate and gross fixed capital formation appear with the expected positive signs and are statistically significant (except government expenditure on education and primary enrolment rate). The findings of this work have strong implications on education and health policies and considering that they are of great debate in the country. Therefore, the study recommends that in order to accelerate growth and liberate Nigerians from the vicious cycle of poverty, the government should put in place policies geared towards massive investment in the education and health.

Adelakun (2011) examined human capital development and the economic growth in Nigeria from 1999 to 2015. He described human capital as an important factor used in converting all resources to mankind's use and benefit. The study evaluates human capital development and economic growth in Nigeria by adopting conceptual analytical framework as well as employing ordinary least square (OLS) to analyze relationship between human capital development and economic growth. The findings

revealed that there is strong relationship between human capital development and economic growth. The policy implication recommends that proper institutional framework should be put in place to look into manpower needs of various sectors and implement policies that can lead to the overall growth of the economy.

In conclusion, evidence from the literature showed that human capital development and economic growth especially investment in education and health are crucial for economic growth. In the opinion of Lucas (1988) who asserted that human capital are fundamentally different from physical capital; implying that representative individuals would decide much of his time for either producing physical output or used for the formation of human capital. However, little emphasis has been placed on the health and educational component of human capital formation. Thus, there is the need to explore the twin concept; education, health with life expectancy and gross fixed capital formation, and how they stimulate growth and reduce poverty in Nigeria.

THEORETICAL FRAMEWORK AND METHODOLOGY

Theoretical framework

The Augmented Solow growth model which is an extension of the Solow growth model is the theory employed in this study. The Augmented Solow growth model differs from the Solow growth model in that it includes human capital as a factor that can enhance economic growth. The model also emphasizes that human capital can also be used to explain the differing income levels in different economies. It just does not explain human capital being idle but development of the human resource in a country, it highlights that education is a way in which human capital can be better formed as it allows labour to acquire skills, knowledge and competencies that can enhance productivity as well as growth.

Mankiw, Romer, and Weil presented the human capital augmented Solow model of economic growth. They assumed that the economy produces one good, output (*Y*). It is produced according to:

$$Y(t) = K(t)^{\alpha} H(t)^{\beta} A(t) L(t)^{1-\alpha-\beta} \quad (1)$$

Where: $\alpha, \beta \in [0,1]$, $\alpha + \beta \in [0,1]$, and *t* denotes time. This implies that the production function exhibits constant returns to scale in its three factors: physical capital (*K*), human capital (*H*), and productivity-augmented labour (*AL*).

Specifically, it is a Cobb-Douglas production function. All markets (both input and output markets) are assumed to be perfectly competitive. All firms are assumed to be identical. The economy can then be described by a representative agent.

Physical capital and human capital are assumed to be accumulating factors; that is, the representative agent saves output to have more capital (either physical or human). Their equations of motion are:

$$\dot{K}(t) = s_K Y(t) - \delta K(t) \quad (2)$$

$$\dot{H}(t) = s_H Y(t) - \delta H(t); \quad (3)$$

where s_K and s_H are the saving rates for physical capital and human capital respectively. They are exogenously given. Notice that both physical capital and human capital are assumed to depreciate at the same rate, δ. This will make our lives much easier later, as it simplifies the algebra tremendously.

The equations of motion for labor (*L*) and labor-augmenting productivity (*A*) are:

$$\dot{L}(t) = nL(t) \quad (4)$$

and, $\dot{A}(t) = gA(t)$; (5)

where *n* and *g* are exogenously given growth rates.

Since output per worker on the balanced growth path is:

$$\left(\frac{Y(t)}{L(t)}\right)^{*} = A(t)\,\tilde{y}^{*}(t) \quad (6)$$

regardless of whether or not human capital is included, the growth of output per worker on the balanced growth path remains *g*, the rate of technological progress or the growth rate of labour-augmenting productivity. Growth of output per worker on the balanced growth path in the human capital augmented Solow model is the same as in the standard model. It is:

$$\frac{\left(\frac{\dot{Y}(t)}{L(t)}\right)}{\left(\frac{Y(t)}{L(t)}\right)} = g \quad (7)$$

Since all countries draw upon the same stock of technology, the model predicts similar long run growth experiences for all countries. However, the addition of human capital to the model increases our ability to explain cross-country. One of the biggest questions in social science is why some countries are more developed than others.

Mankiw, Romer and Weil make three other important assumptions; namely: that people invest in human capital just like they invest in physical capital; that is, by foregoing consumption and devoting a fraction s_H of their income to the accumulation of human capital (analogous to the fraction s_K invested in physical capital), that human capital depreciates at the same constant rate δ as physical capital, and that output (the homogeneous good produced in the economy) can be used for either consumption or investment in (physical or human) capital.

The ARDL estimation technique

In order to choose an appropriate time series model, the investigation of the time series data to verify the results of stationarity and cointegration tests is central. This research paper therefore employs the recently developed autoregressive distributed lag (ARDL) bounds testing approach to cointegration developed by Pesaran and Shin (1995). The technique has several advantages over other estimation techniques like Engle and Granger (1987) and Johansen (1991). First, it can be applied regardless of the order of the integration of the regressors (either I(1) and/or I(0)); it is a more statistically significant approach for examining correlation when faced with small data size as other techniques require large data size for validity to hold. It also allows for the variables to have different optimal lags, which is not applicable to other techniques. Furthermore, the technique uses a single reduced form equation for determining both long-run and short-run relationship among variables (Babajide and Lawal, 2016; Babajide et al., 2015; Bahmani-Oskooee and Ng, 2002, 2010; Pesaran and Shin, 1999).

Based on the theoretical framework, the model relating to human capital formation and economic growth is considered to be:

$$GDPt = \beta_1 TGEEt + \beta_2 TGEHt + \beta_3 GFCFt + \beta_4 LVEXPt + \mu \quad (8)$$

Where:
GDP = Gross Domestic Product at constant prices
TGEE= Total government expenditures on education
TGEH= Total government expenditures on health
GFCF = Gross fixed capital Formation
LVEXP = Life Expectancy
β_0 – Constant term
β_1 - β_4 = Coefficients

RESULTS AND DISCUSSION

The analysis was carried out after various diagnostic tests were done. A summary of the results are presented in Table 1.

In most cases, even though, the bounds testing procedure does not require the pre-testing of the variables included in the model for unit roots due to its appropriate regardless of whether the regressors in the model are purely *I*(0), purely *I*(1) or mutually cointegrated, the application of unit root tests in the ARDL is necessary in order to ensure that the regressand is integrated of order one and none of the variables because the computed F-statistics provided by Pesaran et al. (2001) are valid for only variables that are *I*(0) or *I*(1).

The result in Table 1, considering the Augmented Dicky-Fuller test statistics at 1, 5 and 10% critical values, reveals that the Augmented Dickey–Fuller test statistics are greater than critical values at first difference, this implies that the data series has a unit root and that they are all stationary at first at 1st differences, It also means that the results shows that the variables specified under the model specification above are integrated of the same order; 1(1). The level of their integrations indicates the number of time the series have to be differenced before their stationarity is induced. The linear combination of the series integrated of the same order are said to be co-integrated.

The result obtained from Table 2 show the estimate of the long run dynamic relationship between gross fixed capital formation, health, education and life expectancy on the economic growth in Nigeria. Given the established linkage among the constructs as shown from above, it can be deduced and compelling that a long-run relationship amongst the variables when regression is normalized in the variables are co-integrated in these models.

The ARDL results of the long-run relationships between the variables show that the estimated coefficients of the long run relationship indicates that there is a long run co-integrating equation which implies that there is a long run relationship between the variables stated in the model specification above.

The result of the estimated coefficients of the long run coefficient indicates that gross fixed capital formation has significant effect on the economic growth in Nigeria at 0.05% probability level (Table 3). Furthermore, total government expenditures on education shows a significant effect on the economic growth in Nigeria, Also, total expenditures on health as seen from above is significant on the economic growth in Nigeria. The estimated coefficient of total government investment on education implies that a decrease in the investment in education will lead to -0.52% decrease on the economic growth in Nigeria. A unit increase in investment in health while holding other explanatory variables constant will lead to 1.09 % increase in the economic growth in Nigeria. Finally, when there is a unit decrease in the life expectancy in Nigeria while other explanatory variables are held constant will lead to -2329.21 decreases in the value of economic growth in Nigeria.

Based on the ARDL bound test result shown from Table 4, and comparing the f-statistics with the Pesaran critical value at 10 %, 5%, 2.5 %, 1% level of the lower bound value of 2.45, 2.86, 3.25 and 3.74 1(0) with and the upper bound 1(1), 3.52, 4.01, 4.49 and 5.06 value of upper bound less than the F-statistics. Following the relevant critical value bounds presented in Table 4, there is therefore the substantial evidence to say that there is a long run relationship between human capital formation and economic in Nigeria. Since the Upper bound tests as shown in the bound test result indicates that it is less than the F- statistics value at 1%.

Based on the ARDL result obtained from Table 5, the

Table 1. Presentation and analysis of unit root test result.

Variables	Test for unit root	ADF test stat	Critical values for ADF test stat			Remarks
			1%	5%	10%	
GDP	Levels Results	3.660966	-3.64634	-2.95402	-2.61582	Non Stationary
GFCF	Levels Results	2.378084	-3.64634	-2.95402	-2.61582	Non Stationary
TGEH	Levels Results	-0.78024	-3.64634	-2.95402	-2.61582	Non Stationary
TGEE	Levels Results	-2.65909	-3.64634	-2.95402	-2.61582	Non Stationary
LVEXP	Levels Results	3.220656	-3.64634	-2.95402	-2.61582	Non Stationary
GDP	1st Difference	-3.863831	-3.65373	-2.95711	-2.617434	Stationary
TGEE	1st Difference	-6.865551	-3.65373	2.95711	-2.617434	Stationary
TGEH	1st Difference	-6.018662	-3.65373	-2.95711	-2.617434	Stationary
GFCF	1st Difference	-4.082135	-3.65373	-2.95711	-2.617434	Stationary
LVEXP	1st Difference	-4.163576	-3.661661	-2.960411	-2.61916	Stationary

Source: Author's computation.

Table 2. Result of ARDL cointegrating and long run relationship form.

Dependent Variable: GDP
ARDL Cointegrating And Long Run Form
Dependent Variable: GDP
Selected Model: ARDL(2, 0, 0, 0, 2)
Included observations: 32
Cointegrating Form

Variable	Coefficient	Std. error	t-statistic	Prob.
D(GDP(-1))	-0.188189	0.054665	-3.442608	0.0022
D(GFCF)	0.000000	0.000000	17.299883	0.0000
D(TGEE)	-0.002941	0.001396	-2.106426	0.0463
D(TGEH)	0.006201	0.003363	1.843666	0.0782
D(LVEXP)	3127.882288	2993.720555	1.044814	0.3070
D(LVEXP(-1))	7710.804446	4130.322612	1.866877	0.0747
CointEq(-1)	-0.565765	0.046326	-12.212747	0.0000

Cointeq = GDP - (0.0000*GFCF -0.0052*TGEE + 0.0110*TGEH -2329.2076 *LVEXP + 109116.6513)

Source: Author's Computation.

Table 3. Estimated long run coefficients using the ARDL approach.

Variable	Coefficient	Std. error	t-statistic	Prob.
GFCF	0.000000	0.000000	11.441313	0.0000
TGEE	-0.005198	0.002573	-2.019963	0.0552
TGEH	0.010960	0.005932	1.847761	0.0775
LVEXP	-2329.207621	1587.479512	-1.467236	0.1559
C	109116.651253	73505.769435	1.484464	0.1513

results shows that total gross fixed capital formation, investment on health, and life expectancy is individually significant in explaining the effect of human capital formation on the economic growth in Nigeria, However, the result of education indicates an insignificant effect on the economic growth in Nigeria.

Table 4. ARDL bounds test for co-integration.

ARDL Bounds Test		
Null Hypothesis: No long-run relationships exist		
Test Statistic	Value	K
F-statistic	5.826807	4
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	2.45	3.52
5%	2.86	4.01
2.5%	3.25	4.49
1%	3.74	5.06

Table 5. Estimated long run coefficients using the ARDL approach.

Dependent Variable: GDP				
Method: ARDL				
Dynamic regressors (1 lag, automatic): GFCF TGEE TGEH LVEXP				
Fixed regressors: C				
Number of models evaluated: 16				
Selected Model: ARDL (1, 1, 0, 0, 1)				
Variable	Coefficient	Std. error	t-statistic	Prob.*
GDP(-1)	0.597535	0.117711	5.076302	0.0000
GFCF	4.45E-09	2.87E-10	15.49428	0.0000
GFCF(-1)	-1.51E-09	6.82E-10	-2.214106	0.0362
TGEE	-0.002083	0.001304	-1.598129	0.1226
TGEH	0.004787	0.003761	1.272875	0.2148
LVEXP	5464.009	2172.956	2.514552	0.0187
LVEXP(-1)	-6023.685	2614.492	-2.303960	0.0298
C	26494.95	33995.87	0.779358	0.4431
R-squared	0.998064	Mean dependent var		16051.85
Adjusted R-squared	0.997522	S.D. dependent var		25365.63
S.E. of regression	1262.720	Akaike info criterion		17.32714
Sum squared resid	39861568	Schwarz criterion		17.68993
Log likelihood	-277.8978	Hannan-Quinn criter.		17.44921
F-statistic	1841.142	Durbin-Watson stat		2.435454
Prob(F-statistic)	0.000000			

*Note: p-values and any subsequent tests do not account for model selection.

The R^2 test is used to explain the total variation of the dependent variable that can be explained by the independent variable. The result shows that the five explanatory variables in the equation explain 99.80% of the systematic variations in the dependent variable that is explained by changes in the independent variables. The Durbin Watson statistic which is used to test the existence serial correlation between the variables, hence, Durbin Watson statistic of 2.44 implies the absence of serial correlation. This is because the closer the DW value is to two, the better the evidence of the absence of serial correlation.

CONCLUSION AND RECOMMENDATION

The primary policy implication of this research paper is that, in order to facilitate economic growth, education and

training need be to supply not just the quantity of human capital but the quality of human capital. Moreso, efforts must be made at allocating more funds to government expenditure on health in order to improve the quality of life, the material well-being and life expectancy of the people.

Inter-alia the conclusion is that human capital development enhances economic growth, and the findings suggest that Nigeria is yet to fully benefit from it in terms of enhanced economic growth; hence, the study makes the following recommendations to improve the growth-enhancing tendencies of human capital development in Nigeria.

The government should increase not just the amount of expenditure made on the education sector, but also the percentage of its total expenditure accorded to the sector. More funds should be allocated to vocational education as it helps to provide students with the specific job-related skills that will allow them to move easily into employment. This type of education appears very attractive when there are large youth unemployment problems as is the case in many developing countries. Furthermore, improve personnel development in the health care with an ensuring adequate distribution of health facilities within the federation.

The government must ensure the availability of funds to the health sector for improved services. The private sector should also improve its participation in the provision of private schools/health centres. Where these are already available, efforts should be made to make these services more affordable to the general public.

In addition to this, teachers/lecturers should be paid higher rates than what they presently earn. This should be done so as to curb the imminent brain drain problem of the country. Better infrastructural facilities should be provided for existing schools, while new educational institutions/health care centres should be established to provide quality education/health for the populace. The free basic education (UBE) programs established by the federal and state governments should be improved upon, and sustained. Limiting the rise in the cost of health care services and ensuring efficiency in health care services would accelerate the expected growth rate in these sectors. And finally, an enabling environment of macro-economic stability should be provided by the government to encourage investment in human capital by the private sector and the government itself as this is the practice in developed economies.

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