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Human Capital Development and Economic Growth in Nigeria

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Abstract: This study examines the impact of Human Capital Development on Economic Growth in Nigeria.It made use of five variable ordinary least square regression models to test the impact of Human Capital Development on the Growth of the Nigerian economy. These variables are Government Expenditure on Health (GEHT), Government Expenditure on Education (GEED), Labour Force (LF), Life Expectancy (LE), and Gross Rate of Capital (GRC). Secondary data sourced from the Central Bank of Nigeria Statistical Bulletin, 2013, National Bureau of Statistics report 2013 and World Bank Annual Report, 2013 was used in the study.It was also found out that about 91% of the changes in the dependent variable (GDP) were accounted for by changes in the explanatory variable. This to a large extent explains the place of human capital development in economic growth. The more the government concentrates on human capital development, the more of economic progress that will be recorded. The study therefore recommends as follows: that priority should be given to human capital development considering the impact it had on economic development as exposed by the result of the finding. Both formal and informal education should be developed to increase its impact of the nation’s economy and also Government should redouble their effort toward improving the standard of education in Nigeria. This will on the long run translate to economic growth occasioned by a vibrant and well trained manpower. It has been discovered that human resource rather than natural resources guarantee economic growth the world over. In a country like Nigeria where economic growth and development is much need, a study to expose the impact of human development on economic growth cannot but be significant.
Key words: Human, Capital, Development, Growth, Expenditure, Expectancy, Labour Force.

Introduction

Countries the world over has come to recognized human capital as an agent of national development. The government of various countries has tried improving on their human capital through the provision education and health services to people. This has helped in so many ways in improving the quality of human resources. Apart from being issues of social concern, both education and health services provide an economy with healthy trained human resources required for economic growth and development. Nigeria as a microcosm of the world has not been left out in the effort towards developing the human capital of the nation. This is because the development of human capital has been recognized by economists to be a key prerequisite for a country’s socio-economic and political transformation. Among the generally agreed causal factors responsible for the imperative performance of the economy of most of the developed and the new industrialized country is an impressive commitment to human capital formation (Adedeji and Bamidele 2003, World Bank, 1995, Barro, 1999). This has been largely achieved through increased knowledge, skill and capabilities acquired through education and training by all the people of these countries.

Facts from emerging and strong economy of the world suggest that social-economic development across this nation is attributed not so much to national resources and endowment and the stock of physical capital but to the quality and quantity of human resources. According to Oladeji and Adebayo (1996), human resources are critical variable in the growth process and worthy of development. They are not only means but, more importantly, the ends that must be served to achieve economic growth or progress.

Over the years successive Nigeria government recognized the importance of human capital formation in the development process and hence embarked on various program and projects which led to the establishment of educational institutions and health centers throughout the country. However, in the late 1970s and early 1980s, federal government spending grew substantial resulting in fiscal crisis, inflation, and heavy borrowings, subsequently, through the austerity measures adopted in 1982 and structural adjustment program introduced in 1986, the country attempted to bring down fiscal deficits as part of its stabilization and adjustment programs, often by reducing public spending on across-the boards basis. These reductions resulted in unprecedented economic and social cost as human resources development was neglected with adverse long-term development consequence (Oyinlola, 2003). Thus, the ultimate goal of economic development which underscored the needs to improve the wellbeing of people was overlooked. In more recent times, renewed attention was paid to the role of human capital formation in the country's development process and this has prompted the federal government to declare in it 1999-2003 economic policy belongs to the people, programme that economy exist for and at all times the general wellbeing of all the people shall be the overriding objectives of the government and the proper measure of performance (FGN 1999). Thus, policy statement of the government is further reiterated in the National Economic Empowerment and Development Strategy (NEEDS). The provision of high quality education and health care to all the country's citizen is considered a key element of public policy by all levels of government. Studies conducted by Sehuz (1961), Denison (1962) and a host of other economist, contrary to what existed prior to the second world war (1939-1945), confirmed that economy depended on education similarly; health is fundamental to economic growth and development and is one of the key determinant of economic performance both at micro and macro levels. This derives from the opinion of Bloom and Canning, (2003), that health is both a direct component of human well being and a form of human capital that increases individual capabilities. Grossman (1992) has equally demonstrated that health is a form of human capital. Schultz (1992), argued that population quality is the decisive factors of production and emphasized the merits of investing in education and health (See also Bloom and Canning, 2003).

Overtime, the issues relating to the concept of human capital formation have remained unresolved: Uneven distribution of skilled manpower, Misemployment of human capital in Nigeria, Poor reward system retarding the acquisition and development of human capital, substandard health, gender discrimination among others. It is against this back drop that this research examines the correlation between expenditure on education, health, capital, and labour, life Expectancy and Structural Adjustment Programme, and economic growth in Nigeria.

Literature Review

Harbison (1993) referred to human resources development as the process of increasing the knowledge, skills and the capacities of all the people in a society. In economic terms, according to them, it is the accumulation of human capital. Becker, (2010) states that human capital is so called because people cannot be alienated from their knowledge, skills, or values in a way they can be separated from their financial and physical assets. Human capital can be defined as the sum total of the knowledge, skills, abilities, and aptitude of the people inhabiting a given society (Onymunwa&Achime, 2000).

The modernization theory focuses on how education transforms an individual value, belief and behavior. Exposure to modernization institutions such as schools, factories, and mass media inculcate modern value and attitudes. The attitude include openness to new idea, independence from traditional authorities, willingness to plan and calculate further exercises and growing sense of personal and social efficacy. According to the modernization theorists, these normative and attitudinal changes continue throughout the life cycle, permanently altering the individual's relationship with the social structure, the greater the number of people exposed to modernization institution, the greater the level of individual modernity attained by the society.

Thus, educational expansion through effects on individual values and benefits innovation the necessary building blocks for more productive workforce and a more sustained economic growth.

Again dependency theory arose from Marxist conceptualization based on the dynamic world system that structures conditioned for economic transformation in both the core and periphery of world economy. Certain feature of the world polity such as state fiscal strength, degrees and regime centralization and external political integration may contribute to economic growth in the developing world.

In Nigeria, several studies have emerged in an attempt to provide quantitative evidence to the growth-human capital nexus. Akangou (1998) and Mbanefoh (1980) determine the social and private returns of 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 and recurrent expenditure on education is positively related to growth, although the relationship is weak.

Chete and Adeye (2003) explored the association between human capital investment and economic growth in Nigeria. A number of methodological approaches were employed to examine this link. Specifically, the Granger causality tests were inconclusive on the direction of causality. The variance decomposition analysis shows that "own shocks" constitute the predominant source of variation in employment growth's forecast errors and income growth's forecast errors, and that innovations of employment growth can be better predictors of income growth. The impulse response analysis reveals that there are considerable oscillations in the response pattern of income and employment to unanticipated shocks in each other. The paper observed a mismatch between the manpower needs of the country and the skills turned out by the educational system.

Amassona and Nwosa (2011) studies the causal nexus between human capital investment and economic growth in Nigeria for suitable development in Africa at large between 1970 and 2009 using vector error correction (VEC) and pairwise granger causality methodologies. The findings of the VAR model and pairwise estimate reveal no causality between human capital development and economic growth. The study recommends the need to increase budgetary allocation to the education and health sector and the establishment of sound and well-functioning vocational institute needed to bring about the needed growth in human capital that can stimulate economic growth. Also, the study identified that labour mismatch is an issue that government needs to reckon with in order to accelerate and sustain economic growth. In this regard, policy makers in conjunction with employers and individuals needs to update information on the real labour market value of different qualifications, in order to help them navigate through the increasingly complex education system and make optimal kinds of educational investment decisions needed to propel economic growth.

Johnson (2011) evaluates human capital development and economic growth in Nigeria by adopting conceptual analytical framework that employs the theoretical and ordinary least square (OLS) to analyze the relationship using the GDP as proxy for economic growth; total government expenditure on education and health, and enrolment pattern of tertiary, secondary and primary schools as proxy for human capital. The analysis confirms that there is strong positive relationship between human capital development and economic growth. Following the findings, it was recommended that stakeholders need to evolve a more pragmatic means of developing the human capabilities, since it seem as an important tool for economic growth in Nigeria. Also proper institutional framework should be put in place to look into the manpower needs of the various sectors and implement policies that will lead to the overall growth of the economy.

A study of the joint development of government expenditures and economic growth in 23 OECD countries conducted by Larmartina and Zaghini (2007) showed that there is a structural positive correlation between public spending and per capita GDP. Thus an increase in government's spending on human capital development is expected to culminate in an increase of per capita output.

Lawanson (2009) took this study further by including both health and education expenditure in her model. Her objective was to examine the role of human capital investment (proxied by total government on education and health) on economic growth in Nigeria. After regressing GDP on government expenditure on education, government expenditure on health and the enrolment rates, she found out that a clear relationship exists between human capital development and economic growth. However, unlike the study by Ogujiuba and Adeniyi (2004), the study did not disaggregate figures on health and education into the recurrent and capital components.

Dausa (2010) made use of an adapted endogenous growth model developed by Mankiw, Romer, and Weil (1992) in the study of human capital and economic growth relationship in Nigeria. However, the study did not include government spending as one of the human capital variables used in the model. Babatunde and Adefabi (2005) discovered a long run relationship between human capital development (proxied by schools' enrolments in primary and tertiary institutions and average years of schooling) and economic growth measured by outper per worker. Their result showed that education has a statistically significant positive relationship with economic growth. However, they did not give consideration to government health expenditure as a human capital component in the model specified and estimated.

Research result of Bloom et al (2004) regarding the impact of life expectancy beside other variable (labour force experience, physical capital inventory, labour force and average academic years) on economic growth confirmed this relationship too. The main result of their study is that health has a significant impact on economic growth so that increasing of one year of the society's life expectancy is leaded to increase national production to 4% positive and high impact of health on productivity and economic growth could justify increasing of health expenditures and improvement of health status in the society.

Research Methodology

Type and Sources Of Data

Time series secondary data obtained from the Central Bank of Nigeria (CBN) Annual report and the statistical bulletin of the Central Bank of Nigeria (CBN) in the selected years between the year 1990 and 2013,the National Bureau of Statistics (NBS), 2013 and World Bank Annual report and statistical bulletin was used in this research work to estimate the relationship between government expenditure on education, health, capital, and labour, life Expectancy and Structural Adjustment Programme, and economic growth in Nigeria.

Model Specification

This study made use of five variable ordinary least square regression models to test the impact of Human Capital Development on the Growth of the Nigerian economy. This is informed by the fact that the study seek to examine the effect of more than one variable on economic growth of Nigeria. The functional form for a multiple regression analysis is given in equation (1.0) below

GDP = f (GEED, GEHT, GRL, LE, GRC) = 0 .... (1.0)

Equation 2 is interpreted as Gross Domestic Product, Government Expenditure on Education, Government Expenditure on Health, Growth Rate of Labor, Life Expectancy and Growth Rate of Capital. The equation (3.2) is the econometric form of the model

GDP= $\beta_0 + \beta_1$ GEHT + β_2 GEED + β_3 GRL + β_4 LE + β_5 GRC + μ.................... (1.1)

Where:

GDP = Gross Domestic Product

GEHT = Government Expenditure on Health

GEED= Government Expenditure on Education

GRL = Growth of Labour Force

LE = Life Expectancy

GRC = Growth rate of Capital Formation

β_0 toβ_5= intercepts

μ = error term

Analysis of Regression Result

The result of the multiple regression result carried out to examine the effect of Government Expenditure on Education (GEED), expenditure on health (GEHT),Growth of Labour Force (GRL), Life Expectancy (LE) and Gross Rate of Capital Formation (GRC) on economic growth is presented and discussed.

GDP= 6.08E+14+ 80852.0 GEHT + 8963.502 GEED + 11102.49 GRL+ 4.0E+09 LE +2.57E+10GRC + μ

S.E = (3.59E+11) (641428.6) (2649.983) (6368.768) (64E+09) (5.80E+09)

F= 48.7668

R^2 = 0.91665

$\bar{R}^2$ = 0.896437

D.W 1.963587

The result presented above shows a positive relationship between the intercept and the estimated standard error. The value for the intercepts is 6.08E+14 with a corresponding value of standard error of 3.59E+11.

The coefficient estimate for Government Expenditure on Health (GEHT) is 80852.0 having a corresponding standard error of 641428.6. This goes to show that government expenditure on health has a positive effect on Gross Domestic Product our proxy for economic growth. This means that countries that increases their expenditure on health also end up boasting economic activities positively to the extent that it will result in economic growth. In addition, increased expenditure on health should translate to better health care delivery, all things being equal, which will in turn translate to a healthy human capital that can guarantee increased productivity.

The coefficient estimate for Government Expenditure on Education (GEED) is 8963.502 having a corresponding standard error of 2649.983. This means that there is a positive relationship between Gross Domestic Product and Government Expenditure on Education. It goes to show that an increase in government expenditure on education will help guarantee the needed skill for human capital which will translate to economic growth of the nation.

The coefficient estimate of Growth of Labour Force (GRL) is 11102.49 having a corresponding standard error of 6368.768. The implication of the result gotten is that growth rate of labour force is having a positive relationship with economic growth in Nigeria. This position agrees with existing theories that as the labour force increases, the needed labour for economic expansion is provided and hence economic growth.

The findings, there is a positive relationship between Life Expectancy (LE) and Gross Domestic Product (GDP). The coefficient of Life Expectancy is 4.0E+09 with a corresponding standard error of 64E+09. The implication of this result is that, the longer one lives, the higher his contribution to economic growth. It should be noted here that life expectancy is function of quality health care delivery among other things.

The coefficient of Gross Rate of Capital is 2.57E+10 which implies a positive relationship between Gross Rate of Capital (GRC) and economic growth in Nigeria. This findings suggest that, the higher the rate of capital formation, the higher the corresponding economic growth expected.

The Coefficient of Multiple Determination is 0.91665. This means that about 91% of the variation in the level of the Gross Domestic Product (GDP) is explained by the independent variables; Government Expenditure on Health (GEHT), Government Expenditure on Education (GEED), Labour Force (LF), Life Expectancy (LE) and Gross Rate of Capital (GRC). The remaining 8% of the variation in Gross Domestic Product is explained by variables outside the model. This can be concluded that, there is a high degree of relationship between real Gross Domestic Product and the explanatory variables used in this.

The Durbin Watson (DW) statistics of 1.963587 show the absence of positive serial correlation. This is because the figure is approximately 2.0.

Policy Implication of Findings

This research work set out to examine the effect of human capital development and economic growth in Nigeria. It was established that all the independent variables has positive relationship with Economic growth in Nigeria. These variables are Government Expenditure on Health (GEHT), Government Expenditure on Education (GEED), Labour Force (LF), Life Expectancy (LE), and Gross Rate of Capital (GRC). The implication of this is that, any positive significant improvement in any of the variables influence economic growth positively. Government therefore should have this in mind when formulating policies that affect these variables because of its attendant effect on economic growth of the nation. It was also found out that about 91% of the changes in the dependent variable (GDP) were accounted for by changes in the explanatory variable. This to a large extent explains the place of human capital development in economic growth. The more the government concentrates on human capital development, the more of economic progress that will be recorded.

Summary of Findings

The study set out to investigate the effect of human capital development on the Nigerian economy. It provides a systematic approach to the understanding of the importance of human capital development on economic growth in Nigeria. The result from our findings suggests that, the Nigeria government has made tremendous towards human capital development, which in turn has culminated into economic growth and better life for the citizenry. The success story has increased the optimism on the part of the populace who long to enjoy the benefits of increased continuous development of human skills and abilities. This eventually spilled over into socio-economic and development policies, as many analysts and policy makers now believe that Human Capital Development can offer great gains to developing countries of which Nigeria is a dominant member.

Conclusion

Developing the human capital of any nation can act as a catalyst that brings about great transformation of the socio-economic development of any nation. A developing nation like Nigeria who is in dire need of socio-economic transformation cannot but take the issue of human capital development serious. This fact has been proved conclusively by our foregoing analysis. The study shows that human capital development is beneficial and remained an essential tool of economic growth in Nigeria. The result of the findings shows that the regression estimates for all the independent variables (government expenditure on health and education, labor force, life expectancy and gross rate of capital) are statically significant in the determination of the level of economic output. This shows that, for a country like Nigeria, whom is dire need of socio-economic transformation, giving attention to the variables can not but be seen as a right step in the right direction by the government. This means a greater amount of each would engender increase in output level rise in the growth of the economy. Also, the regression results reveal that all the independent variables are relatively inelastic with respect to their relationship with the dependent variable. Based on the empirical findings of this study, it could be concluded that all the government expenditure on health and education, labor force, life expectancy and gross rate of capital are major long run determinant of industrial performance in Nigeria as expressed by the level of gross domestic product in the economy. Therefore, policies maker is advised to be sensitive to the behavior of the aforementioned variables so as to ensure industrial sector growth and development.

Recommendation

The Nigerian government right from independence in 1960 has made serious attempt at developing the human capacity of the populace through provision of both formal and informal education and the provision of other socio infrastructure that will make life better for the people, like the provision of health. This has been found by this study to be very effective in transforming the Nigerian economy. The study therefore recommends as follows:

Priority should be given to human capital development considering the impact it had on economic development as exposed by the result of the finding. Both formal and informal education should be developed to increase its impact of the nation's economy.

Education was found to have a positive effect on economic growth in the study. Government should redouble their effort toward improving the standard of education in Nigeria. This will on the long run translate to economic growth occasioned by a vibrant and well trained manpower.

A healthy nation is said to be a wealthy nation. This notion is premise on the fact that, a healthy manpower will be able to discharge his productive responsibility to the maximum. Effort should also be redoubled by the government in their provision of affordable and qualitative health care delivery to the populace. This will guarantee good health and maximum productivity in the nation's economy.

References

Akangbou, S.D. (1998). Cost Benefits Analysis of Education Investment in Bendel State of Nigeria. Journal of Nigeria Education Research Association3 (2) June, pp29-38 Human Resources Development in Africa. Selected papers for 2002 Annual Conference, Nigeria Economic society, Ibadan pp 53-78.

Amassoma,D And Nnwosa.P.I (2011).Investment In Human Capital And Economic Growth In Nigeria: A Causality Approach. Canadian Social Science Journal 7(2).

Barro,R. (1990)"Economic Growth in cross section of countries" Quarterly journal of Economics Vol. 106, No2, pp407-443.

Becker, G. (2010). Human Capital: A Theoretical And Empirical Analysis With Special Reference To Education. Chicago: University Of Chicago Press.

Bloom,D.E, and Scanning D.(2003) :The health and poverty of nations: from Theory to practice, Journal of Human Development, Vol.4, No.1, pp47-71.

Bloom,D.E.,andDavid ,C.(2004)"the health and the wealth of nations ,Science Vol,.281.No18,pp.1207-1209

Chete, L. N. and B W.Adeboye[2001]Human capital and economics growth; the Nigeria Experience, in human resource development in Africa. Selected paper for 2002 annual conference, Nigeria economic society, Ibadan, pp 79-102

Dauda,R.O (2010). Role of Human Capital Development: An Empirical Study Of Nigerian Case. Oxford, Oxford Business and Economic Conference Program

Harbison, F. H (1993). Human Resources as the Wealth of Nation. New York: Oxford University Press.

Johnson, A. O. (2011). Human Capital Development And Economic Growth In Nigeria. European Journal Of Business And Management Vol.3 No 2

Mankiw, N. G.,Romer, ., & Weil, D. N. (1992). A Contribution to the Empirics Of Growth. Quarterly Journal of Economics, 408-437.

Odusola, A.F (1998). Human Capital Investment And The Empirics Of Economic Growth in Nigeria: Rekindling Investment For Economic Development In Nigeria Select Paper For 1998 NES Annual Conference, Nigeria Economic Society, Ibadan , Pp257-272.

Ogujiuba, k. k., &Adeniyi, A. O. (2004). Economic growth and human capital Development: the case of Nigeria. Nigeria: CBN.

Oladeji, S. I. and Adebayo, A .A (1996).The Scope For Human Capital Development Under The adjustment programme In Nigeria. Nigeria Economic Society Annual Conference Ibadan, NES, 441-460

Schultz T.W (1961): Investment in Human Capital American Economic Review Vol.51, No.1, Pp.1-17.

Schultz, T.P.(1992): The role of Education and Human Capital in Economic Development: an Empirical Assessment; Yale Economic Growth center Discussion paper series.