**UNEMPLOYMENT AND HUMAN CAPITAL DEVELOPMENT IN NIGERIA**

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**Abstract**

*The Nigeria government has implemented some policies to mitigate unemployment over the years as well as to boost human capital through education, wealth creation and empowerment strategies. It has been discovered that the challenge of unemployment permeates all levels of the Nigeria populace. But in recent times, it has been observed that amongst all age groups, the youths especially have been worst hit. Therefore, this study examines the causal relation between human capital and unemployment, as well as the type of education expected of school leavers and graduates. This is done with a view to tackling the unemployment situation, thus, having implications for the development in Nigeria.*

Key words: “Development”, “Education”, “Entrepreneurship”, “Enrollment”

**Introduction**

In recent decades, increasing global rates of unemployment have hit the youth particularly hard. According to the ILO (2004), it is reported that the highest levels of youth unemployment occurs in sub-Saharan Africa. Among African countries, it is reported that Nigeria accounts for 25% of the continental population. Thus, the relative disadvantage of young people in the continental labour market is expected to be more pronounced in Nigeria. Indeed, a key focus on Nigeria’s development agenda remains how to more effectively tackle the increasing problem of youth unemployment in the country. A strange dimension of the problem however is that, majority of youths that remained unemployed or under-employed, are graduates of tertiary institutions (NBS, 2005). This observation runs contrary to the assertion that education is a priority for promoting youth employment in contemporary societies. It is therefore appalling that a large portion of Nigeria’s human capital developed by using the economies scarce resources to boost educational attainment is constrained from contributing to productivity in the economy. Although the value of education is not limited to being a necessary pre-condition and foundation for employment, the other benefits of education are intricately linked to the employment issue.

In the development of the human capital base of any economy, there are two major aspects that are relevant in analysis of employment generation policy. These are the quantitative and the qualitative aspects. Already, it is a well-known fact that the size of the labour force is a function of the size and age-structure of the population. The age structure of the population determines the number of people available for work. The labour force participation rate as well as the Internal and International migration patterns also affects labour supply. Changes in human capital development programmes also affect the skill composition of job seekers, for whom employment is to be created.

In view of the age structure in Nigeria, the supply (quantity) of labour has been increasing in Nigeria over the years. For instance, the population distribution of Nigeria in 1963, 1991 and 2006 population censuses showed that within the working age bracket and dependency age bracket, the following pattern was revealed:

**Table 1.1: Population Distribution of Nigeria by working and dependency ages in the 1963, 1991 and 2006 Population Censuses**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Age-groups** | **1963** | **1963 %****Distribution** | **1991** | **1991 %****Distribution** | **2006** | **2006 %****Distribution** |
| **0-14** | **23,925,586** | **42.98** | **40,088,028** | **45.04** | **58,736,297** | **41.83** |
| **15-64** | **29,593,340** | **53.16** | **45,996,457** | **51.69** | **77,158,742** | **54.94** |
| **65-85+** | **2,151,129** | **3.86** | **2,907,735** | **3.27** | **4,536,751** | **3.23** |
| **Total** | **55,670,055** | **100** | **88,992,220** | **100** | **140,431,790** | **100** |

*Source: Nigeria Bureau of Statistics(NBS,1989) (formerly Federal office of Statistics(FOS))*

*National Population Commission (1998,2006); 1991 Population Census of Federal Republic of Nigeria: Analytical Report at the National Level Abuja*

 *Percentages computed by the author*

From the table 1.1 above, it can be deduced that the working-age bracket carries more than half of the population structure with 53.16%, 51.69 and 54.94 in 1963, 1991 and 2006 respectively. This structure of the population showed that the quantity of labour supply is available in abundance in Nigeria. Besides, according to the World development report (2011), the labour force participation rate in Nigeria stood at an average of about 55% between year 2000 and 2010. Despite the resource endowment in form of labor abundance, the unemployed persons are mostly youths aged 15-24 years. The proportion of this category of unemployed persons fluctuated between 71.1 and 41.9 percent during the period of 1976 and 2003. There was an annual average unemployment rate of 59.4 percent during this period. This outcome revalidates the dominance of secondary school leavers among the unemployed, since most of them fall within this age (NBS, 2007) .

If the issue of labour quantity is not in doubt, it will become pertinent to find out what is happening to the quality of the labour force in Nigeria. The quality in terms of skills and competence continues to fall due to the decay in the educational institution that trains the labour force. This is evident in human development indicators of 2005, via literacy rate which stood at a total of 69%. Oni (2006) observed that the low level of skilled man power is a disincentive to local or foreign investors who require high level of skills in very highly sophisticated sectors and communication technology; hence, there may be the need to examine kind of education we need to increase young people’s capacities to create and enter employment.

While the phenomenon of graduate unemployment does not invalidate the importance of education as a tool for young people’s participation in the labour force, it raises some critical questions. What is the pattern and trend of unemployment and human capital development in Nigeria in the last three decades? What causal relation exists between unemployment and human capital development in Nigeria? What kind of education do we need to increase young people’s capacities to create and enter employment?

The development of any economy has implications for the long-run sustainability in terms of production given the capacity of its population. The importance of this process of human development lies in the fact that increases in the productive capacity of a nation helps to achieve full employment of resources, reduces wastage, as well as reducing dependence on other countries. The Nigeria government over the years has implemented some policies to mitigate unemployment over the years as well as to boost human capital through various wealth and empowerment strategies. Some of these programmes include the Structural Adjustment Programme (SAP, 1986); National Economic Empowerment and Development Strategy, (NEEDS, 2004-2007); Seven-Point Agenda (2007-2009) as well as the transformation agenda (2009- till date). Each of these programmes had in them the need to boost overall productivity by creating enabling environment through education and infrastructural development. But the presence of youth unemployment in Nigeria has serious implications for the growth of human capital in Nigeria. If the human capital keeps improving overtime via school enrollment and constant education funding by the private and public sector, there may be the need to examine to how far we have fared and propound ways to advance ahead.

There is therefore the need to subject the nexus between unemployment and human capital to further empirical analysis such as the determination of the causal relation between both variables will help to establish or otherwise some previous studies. The study is further divided into four sections. The second section contains the literature review. The third section contains theoretical framework, models and methodology of the study. The fourth section looks at the results of the analysis as well as its discussions. The last section provides the summary and conclusions.

**2. Literature Review**

**2.1 Effect of Human Capital on Growth**

Most traditional analysis of the enlargement in the standard of living of a population have their foundations in the work of Solow and Swan (1956). The simple growth theory stresses that the material endowment of a country is limited to what that country is able to produce. Basically, adopting what economist call the aggregate production, a relationship was specified between the use of factor inputs (such as labour, capital, technology) and the output they generate. To properly drive output growth, it is usually expected each employee has the requisite technical-know-how to drive production activities, in order to achieve efficiency in production.

In the new wave of thinking, certain economic growth analyst adopted a revised mechanism for analyzing growth. The proposition is that newly produced output can be used in three ways. Accordingly, it was observed that current production patterns can take the form of consumptions, addition to financial stock, or additions to the stock of knowledge (human capital). Mincer (1995) identified that human capital is not only a factor in economic growth, but also an effect of it or of developments generated by economic growth. Examining the sources of growth of human capital in the course of economic development, it was discovered that on the supply side, the factors identified include: the growth of family income, urbanization, the demographic transition triggered by declines in mortality, and the rising cost of time, an important factor in the growth of the female labor force in the 20th century were identified as the sources for economic development. The supply side alone cannot explain the continuous growth of human capital as it implies a self-limiting decline in rates of return below those in alternative investments. The trendless (though fluctuating) rates of return on human capital are consistent with growing demands for human capital in the labor market. Growth of demand for labor skills is a function of capital accumulation and of technological changes which put a premium on labor skills. Changes in the skill and wage structures in the labor market are an important part of the evidence. The reciprocal relation between economic growth and the growth of human capital is likely to be an important key to sustained economic growth. A caveat applies to indirect effects of economic growth on family instability which may lead to a deterioration of childhood human capital in sizable sectors of society.

In an empirical study, Olomola (2007) **“**in a paper titled Higher education and economic growth: a causality analysis for Nigeria” employed the granger causality test to see whether human capital causes growth. His findings were that one way causality existed between enrolment in polytechnics and economic growth which implied that the need for middle level manpower increased the enrolments in polytechnics. While, there was no causality between enrolment in colleges of education and economic growth which implied that the former has lower social rates of returns in Nigeria.

Dauda (2010) empirically investigated the role of human capital in Nigeria’s economic development. The paper employed a variety of analytical tools, including unit root tests, cointegration tests and error correction mechanism (ECM). Empirical results indicate that there is, indeed a long-run relationship among labour force, physical capital investment proxied by real gross domestic capital formation, human capital formation, proxied by enrollment in educational institutions and economic growth in Nigeria. Findings show that there is a feedback mechanism between human capital formation and economic growth in Nigeria.

**2.2** **Effect of Unemployment on Human Capital**

According to the human capital model by Connell and Brue (1986), it is expected that for any advancement in human capital, the required and relevant skill must be acquired. This will enhance job placement and advancement, which could come in form of increased wages. A number of studies have been spotted to have examined the relationships that have existed between unemployment levels and its effect of the development of human capital of an economy. For instance, Isobel *et al* (2003), in a paper titled “early development of entrepreneurial qualities: The role of initial education”, attempted to create a better understanding of the role of entrepreneurship education in developing entrepreneurial qualities by confronting theory and practice. In his analysis, he identified the use of games, projects and adventure training as some methods for teaching entrepreneurial qualities; he also emphasize the use of experienced –based instructors that can identify peculiar skills and talents in students and children, and help learners achieve attributes such as risk-taking attitude, creativity, autonomy, persistence.

Jurajda and Terell (2007) examined the reason why differences in regional unemployment in post-communist economies are large and persistent. They showed that inherited variation in human-capital endowment across the regions of four such economies-Czech Republic, Romania, Ukraine and hungary- explained the bulk of regional unemployment variation there and they explored potential explanations for this outcome through related capital and labour mobility patterns. Evidence suggests that regions with high inherited skill endowments attract skilled workers as well as FDI. This mobility pattern, which helps explain the lack of convergence in regional unemployment rates, is consistent with the presence of complementarities in skill and capital. Nevertheless, they found no supporting evidence of human capital wage spillovers implied by the complementarities story. Unemployment of the least-skilled workers appears lower in areas with a higher share of college-educated labour and future research is needed to see if this finding as well as the observed migration pattern arise from different adjustments to regional shocks by education level brought about in part by Central European labour-market institutions, such as guaranteed welfare income raising effective minimum wages.

Alvarez and Shimer (2009) explored the interaction between sector-specific human capital accumulation and sector-specific productivity or demand shocks. The objective was to understand better the determinants of skill and experience premia, the costs of displacement for workers with long job tenure, and the nature of unemployment among such workers. Based on the Lucas and Prescott (1974) search model which deals with sector-specific human capital, it is suggested why skilled workers can remain unemployed indefinitely even though low wage jobs are readily available and are acceptable to unskilled workers. Particularly, they found out that apart from the fact that average wage is a poor indicator of the quality of an industry; the model suggests that skill accumulation can be a powerful mechanism for keeping workers in industries that have been hit by adverse shocks. Indeed, the model generates a form of unemployment for skilled workers who prefer to retain their human capital, rather than quit for another labor market.

Narrowing the review to national cases, a number of works have examined the nexus between unemployment and human capital development. For instance Ajetomobi and Ayanwale (2005) in a paper titled “education allocation, unemployment and economic growth in Nigeria” examined the expenditure trend, higher education students enrolment and its linkage with unemployment and economic growth. With the use of graphs and bar charts in the analysis of these relationships (GDP, Level of employment and industrial relations statistics) they discovered that

* Government spending is unstable and unpredictable.
* Capital and recurrent funding since 1970s were only a small fraction of the nation’s budget.
* The proportion of GDP that goes to education is still low.
* Total enrolment contrast sharply with the level of employment, because government could not limit enrolment to a level which fund made available could cater for.

Awogbenle and Iwuamadi (2010) discovered that according to the ILO (ILO publication, 2007), the increase in the number of youths in secondary and tertiary education is a positive development; however, labour markets in many countries are presently unable to accommodate the expanding pool of the skilled young graduates. It is estimated that about 400 million new jobs would be needed to absorb today’s youths. Due to this decline in jobs and the rise in the number of those unemployed, young people are forced in the informal sector. Factors which readily come to mind when analysing the worsened unemployment crises in Nigeria are usually traced to the long period of instability in the socio-economic and political dimensions that led to the problems imposed on the economy, the nation and the workers. Particularly, they identified economic activity, measured by GDP growth, is probably the single factor that most influences the chances of young people finding a job. Low or negative GDP growth, economic recession and low investment are direct causes in the shrinking demand for labour. A direct illustration to this linkage is witnessed in the Nigerian economy in the 1970s, when the country had a per capita income growth rate of over 4%. The government of the day had a boisterous civil service brought about by the growth. When global economic recession set in from 1981 a negative growth was experienced for most of the 1980s and 1990s, with a per capita income growth rate of 2% in 1998 (World Bank, 2001).

This trend brought a significant implication to a proportion of the country’s human resources. By the end of the 1980s, the World Bank and the IMF ordered borrowers to downsize their public sector and civil services (ILO Publication, 2005). The disenchantment and frustration of young people, much due to mass poverty and unemployment, has further increased the number of aggrieved youths and resulted in the emergence of crimes, strife and unrest in Nigeria.

**2.3 The Relevance between Education and the Real World in Nigeria**

In Nigeria, many teachers and researchers are not as developed as their counterparts in developed countries both theoretically and practically. This basically can be as a result of the less financial resource commitment, less sound academic training. With particular reference to developing countries, like Nigeria, high rate of poverty, low per capita income, low industrialization, lack of relevant instructional materials, high rate of unemployment to mention a few; could have accounted for the poor educational development.

The problem with post-secondary and higher education training today is curriculum-based. It is based on static programmes that takes into account little or no change in the real world system. This factor has implication for the kind of knowledge acquired and the quality of graduates produced. But a flexible curriculum should be a problem solver which takes into account new processes and technologies; incorporating creativity and skill acquisition in the process of training will enhance the capital possessed by graduates. As a result unemployment in Nigeria, particularly in the form of graduate unemployment, has become pronounced in the last two decades due primarily to upsurge in the output from tertiary education and inelastic labour absorptive capacity of the Nigerian labour market for the services of university and polytechnic graduates.

Post-secondary and higher education tend to promote higher personal income, create opportunities for better employment and open opportunities to climb the social ladder, unemployment rates for people with higher education qualifications persist in Nigeria. A more worrisome issue is that many graduates are working outside their field of training: which could be due to low income level among the populace which cause low demand thereby causing reduction in demand for relevant labour by employers; low productivity in all sectors of the economy as evident in overdependence on the oil sector thereby causing undiversfication for other opportunities to be explored, low education funding by government to mention a few. Proper development of the real sector of the economy through investment with the support of the monetary sector will boost total output, thereby improving income levels, general demand level as well as employment level. It must be noted that most organizations complain about the kind of graduates produces and their relevance for employment, but the market is often incapable of adequately anticipating the kind of professionals that will be needed due to advancement in processes that occur virtually on a daily basis.

Most semi-skilled and unskilled workers in Nigeria lie outside the formal sector. In order to carry this vocational skills along and enhance the self-employment pattern which is common amongst this group, the government can revitalize our technical colleges through adequate funding and improve the technical know-how of these technicians by introducing them to newer technologies and ensuring instructional materials are available to them, since the work here is more of practical based. Table 1 depicts the percentage of unemployed persons by education attainment between 1976 and the year 2005.

**Table 2.1: Percentage Distribution of Unemployed Persons by Educational Attainment**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Year  | No Schooling | Primary School | Secondary School | Tetiary institutions |
| 1976 | 65.4\* | 26.5\* | 7.8\* | 0.3\* |
| 1983 | 7.1\* | 43.5\* | 48.7\* | 0.7\* |
| 1985 | 22.6\* | 23.9\* | 51.1\* | 2.4\* |
| 1986 | 15 | 14.1 | 65.7 | 5.2 |
| 1987 | 15.3 | 10.8 | 66.0 | 7.9 |
| 1988 | 12.0 | 18.4 | 61.7 | 7.9 |
| 1989 | 14.8 | 24.3 | 24.3 | 4.6 |
| 1990 | 13.1 | 25.4 | 25.4 | 4.7 |
| 1991 | 14.1 | 17.4 | 17.4 | 3.3 |
| 1992 | 15.1 | 19.9 | 9.9 | 2.7 |
| 1993 | 14.3 | 21.7 | 21.7 | 3.8 |
| 1994 | 18.0 | 17.4 | 17.4 | 2.9 |
| 1995 | 18.7 | 36.7 | 36.7 | 7.1 |
| 1996 | 13.4 | 28.0 | 28.0 | 7.5 |
| 1997 | 11.3 | 8.1 | 48.1 | 32.3 |
| 1998 | 28.2 | 15.8 | 49.5 | 6.5 |
| 1999 | 20.7 | 12.9 | 59.4 | 7.0 |
| 2000 | n.a. | n.a. | n.a. | n.a. |
| 2001 | n.a. | n.a. | n.a. | n.a. |
| 2002 | n.a. | n.a. | n.a | n.a. |
| 2003 | n.a. | n.a. | n.a | n.a. |
| 2004 | 50.5\*\* | 17.8\*\* | 24.3\*\* | 7.5\*\* |
| 2005 | 51.9\*\* | 16.3\*\* | 25.3\*\* | 6.5\*\* |

Sources: \*major financial and social indicators, Central Bank of Nigeria (2004)

Federal Office statistics (2005)

\*\*Data Obtained from Statistical News (2005)

In the 1970s, the people most seriously affected were those with no formal education or those with primary education. The table shows that ‘no schooling’ category accounted for 65.4% of the employed in 1976, while the primary school leavers in the same period accounted for 26.5%. In the 1980s, the incidence of unemployment in this category declined very significantly and early 1990s. The average unemployment rate for ‘no schooling’ category stood at 17.5% between the 1990 and 1999, compared to 14.4% for the primary school leaving certificate category during the same period. In terms of educational attainment, 1986 and 1999 unemployment indices fall more on secondary school leavers. However, the Statistical News of March 2005 presented a totally different unemployment distribution by educational attainment for 2004 and 2005. The figures shows that over 50% 0f the unemployed in Nigeria belong to the ‘no-schooling group, while the proportion of secondary school leavers was 24.3 and 25.3 respectively for year 2004 and 2005. Table 1 also shows that the unemployment incidence for tertiary graduates in 2004 was 7.5% and this declined to 6.5% in 2005. [*Adapted from Onwiooduokit (2006); Adebayo and Ogunriola (2006)]*

In recent times, it is worthy to note that the requirement for professionals and high skilled labour affects the pattern of training people go through. Areas such as high-tech electronics, bio technology, aqua-culture, agro energy, engineering, technocrats to mention a few will require new qualifications which have to be updated. New professions in human sciences, such as psychology, pedagogy, information science and technology of education, play and creativity, programmes will replace the old single discipline approach. The need for occupational advancement calls for increased inter-disciplinary, revitalization of the disciplines related to thicks and aesthetics and sweeping changes in the attitude of teachers and students. (Narasaiah, 2007). The challenge will be to create a sustainable relationship between education and the society through strategic alliances with the productive systems of the economy designed to promote participation all sectors of the economy in basic and applied research programmes. Therefore, it is require that education evolves in relation to the challenge of knowledge explosion. It is vital that curriculums should be geared to what learners “must know” and not what teachers “know” or “they know” think.

**3. Conceptual Framework, Estimation Technique and Variable Measurement**

According to the human capital theory, when a person makes a current expenditure on education training, it is expected that one’s skills and knowledge as well as future earnings is expected to be enhanced. It is therefore worthy of note that expenditures on education and training can be fruitfully treated as an ***investment in human capital*** just as expenditures on capital equipment can be understood as investment in physical capital.

The discounting and net present value analyses the cost and benefits that accrue to an individual as he invest in more education and training. This is important because money expended and received at different points in time are of different value, Hence, there is need to compare the cost and benefits associated with more education and training at a point in time.

If the future value of a cost or earnings is stated in terms of its Present value, algebraically, we have;

*Vp(1 + i) = V1 …………………………………………………….. (1)*

Vp =current value of N1 today

V1 = future value of N1

i = interest rate

(1 + i) represents that an individual receives his original or present value (N1.00) plus the interest.

If we make Vp the subject from equation (1), we have the present value of future earnings as

Vp = $\frac{V1}{(1+i)}$ …………………………………………………………………… (2)

Equation (2) is the discount formulae for a single year period.

The formulae could be extended over a number of n years-since cost and benefits are not expected to be earned within a year. This can be stated as:

$V\_{p}=\frac{E\_{1}}{(1+i)}+\frac{E\_{2}}{(1+i)^{2}}+\frac{E\_{3}}{(1+i)^{3}} . . . + \frac{E\_{n}}{(1+i)^{n}}$ ………………………………………….(3)

The relevant investment criterion or decision rule based on this criterion if the Net Present value (Vp) is greater than zero. A positive value (i.e. Vp> 0) tells us that the present discounted value of the benefits exceed the present discounted value of the costs and when this is so-when benefits exceed costs-the decision to invest in economically rational. If the net present value is negative (I.e. Vp< 0), then costs exceed benefits and the investment is not economically justifiable Connell and Brue (1986).

The relevance of this model for our analysis is that if the expected future benefits from undertaking training exceed its cost, then the training is worth it.

Applying the model to the household, an individual will undertake higher education believing that, the more and more education acquired, the higher the prospects for better employment. On a wider scale, if majority of the young persons in Nigeria advance their knowledge acquisition from primary level to secondary level, and thereafter to tertiary level, the development of human capital through educational attainment is being enhanced. It is therefore expected that the higher the level of education, the higher should be the prospect for better employment; as a result, it is expected that level of unemployment be mitigated via better educational attainment. If the rate of unemployment exist or rises in the face of increasing knowledge acquisition, they are likely to have implications for the human capital development of any country.

**3.1 Model Specification**

In a bid to examine the effect of unemployment on human capital, the level of unemployment in the Nigerian economy will be measured using the available secondary data from the WDI and NBS on unemployment rate. While human capital will be measured using secondary school enrollment ratio.

In order to determine if any causal relationship exist between human capital and unemployment, the granger causality (Gujarati, 2009) test will be adopted. The specific relationship is expected to be as follows:

The Granger causality test assumes that the information relevant to the prediction of the respective variables, human capital$ \left(hum\right)$ and unemployment ($ump)$, is contained solely in the time series data on these variables. The test involves estimating the regression of the form:

$ump\_{t}=\sum\_{i=1}^{n}α\_{i}hum\_{t-i}\sum\_{j=1}^{n}β\_{j}ump\_{t-j}+u\_{it}$………………………………………..…...(3.1)

$hum\_{t}=\sum\_{i=1}^{n}θ\_{i}hum\_{t-i}+\sum\_{j=1}^{m}δ\_{j}ump\_{t-j}+u\_{2t}$……………………………………...….…(3.2)

Where it is assumed that the disturbances $u\_{1t}$ and $u\_{2t}$ are uncorrelated.

Equation (3.1) postulates that current value of $ump$ is related to past values of $ump$ itself, as well as of $hum$, and equation (3.2) postulates a similar behavior for $hum\_{t}$.

From the equations specified above, four cases of causality can be distinguished:

- *Unidirectional causality from hum to ump* is indicated if the estimated coefficients on the lagged *hum* in equation (3.1) are statistically different from zero as a group (i.e., $\sum\_{}^{}α\_{i}\ne 0$)

and the set of estimated coefficient on the lagged *ump* in equation (3.6) is not statistically different from zero (i.e., $\sum\_{}^{}δ\_{j}=0).$

- Conversely, *unidirectional causality* from *ump* to *hum* exists if the set of lagged *hum* coefficients in equation (3.5) is not statistically different from zero in both regressions

(i.e., $\sum\_{}^{}α\_{i}=0)$ and the set of the lagged *ump* coefficients in equation (3.6) is statistically different from zero (i.e., $\sum\_{}^{}δ\_{j}\ne 0)$.

- *Feedback, bilateral causality,* is suggested when the sets of *hum* and *ump* coefficients are statistically different from zero in both regressions.

- Finally, *independence* is suggested when the sets of *hum* and *ump* coefficients are not statistically significant in both the regressions.

Generally, since the future cannot predict the past, if variable *hum* (Granger) causes variable *ump*, then changes in *hum* should *precede* changes in *ump.* Therefore, in a regression of *ump* on other variables (including its own past values) if we include past or lagged values of *hum* and it significantly improves the prediction of *ump,* then we can say that *hum* (Granger) causes *ump.* A similar definition occurs if *ump* granger causes *hum* (Gujarati, 2009)*.*

**3.2 Basic Method of Analysis**

In general, Secondary data will be used for the analysis of this research work. Descriptive analysis was applied to the analysis of the trend and pattern of unemployment and human capital development in Nigeria. While the examination of a causal relation between unemployment and human capital development in Nigeria was achieved using the Granger Causality Test. This test was used to determine which of the two variables is causing other and also the direction of causality. There is unidirectional causality if one of the variables is causing the other but the other does not; however, if the two variables are causing each other, then the causality bi- directional.

The examination the kind of education required by young people in order to boost their capacities to create and enter employment will be analyzed descriptively.

**Table 3.1: Summary of variables, variable measurement, sources and apriori expectation.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variable** | **Variable Measurement** | **Variable Sources** | **Apriori Expectation (Descriptive)** | **Causality test** |
| **Dependent Variable- Human Capital** | **School Enrollment** | **World Development Indicators, (WDI, 2011)** |  | **Uni-drectional/****Bi-drectional** |
| **Independent Variable- Unemployment** | **Unemployment Rate** | **Nigeria Bureau of Statistics, (NBS, 2005); International Financial Statistics, 2011** | **Inverse Relationship** | **Uni-drectional/****Bi-drectional** |

Table 3.1 presents a summary of the variables to be used for the analysis. Human capital will be proxied with the secondary school enrollment ratio, while the unemployment level in Nigeria is explained using the unemployment rate over the study period. In addition, the data sources and apriori expectations are stated in table 3.1.

**4. Results and Discussion of Results**

**4.1 Trend Analysis of Unemployment and Human Capital in Nigeria**

***Source: Human Capital (HUM) WDI, 2011; Unemployment (UMP) NBS, 2005 IFS, 2011***

From figure 4.1 above, it is revealed that the human capital of the Nigeria economy via school enrollment has been rising steadily over the years. For Instance, in1970, the enrollment ratio was about 5%, while in 1980, it stood at about 14%; in 1990, it had risen to about 23% and by the year 2000, it had risen to 30%. A cursory look at the unemployment trend in Nigeria showed that in 1970, unemployment was about 2%, but by 1980, it had risen to about 6%. In 1990, it dropped to 3.5%, while in the year 2000 and 2009, it stood at 13.1% and 19% respectively. It can be deduced from the figure that apart from the mid-1990s where unemployment rate fell to an average of 3%, the pattern observed between unemployment and human capital revealed almost a similar pattern; that direct relationship where human capital is growing positively and unemployment is increasing in a similar fashion.

**4.2 Causality Test between Unemployment Rate and Human Capital Development in Nigeria.**

To provide empirical evidence on the fundamental question of whether human capital causes unemployment or whether unemployment causes challenges in human capital development, it becomes pertinent to adopt the granger causality test (GCT).

The table in 4.1 above, the result of the causality test (F=2.60, p<0.05) showed a unidirectional relationship between unemployment and human capital development in Nigeria. The basic implication of this relation is that the increased pattern in the rate of unemployment rate has been a challenge to human capital development in Nigeria and not the other way round.

|  |
| --- |
| **Table 4.1 Granger Causalty test between human capital and unemployment**  |
|  |  |  |  |
|  Null Hypothesis:  | Obs  | F-Statistic  | Prob.   |
|  |  |  |  |
|  |  |  |  |
|  UMP does not Granger Cause HUM  |  28  |  2.60763  | 0.0953  |
|  HUM does not Granger Cause UMP  |  0.80478  | 0.4594  |
|  |  |  |  |
| *Source: Author’s computation*  |  |  |  |

**4.3 Discussion of Results**

Human capital development is basic to national socio-economic progress. It is usually aimed at improving the quality of life of the people of a country, which is obviously the goal of economic development. Human beings are commonly faced with life’s basic needs which include food, clothing, and shelter; while others will include access to quality health care, good education, infrastructures and security.

Education, like other forms of investment in human capital contributes immensely to the social and economic development of a nation. It is usually expected that a well-educated populace will engender the incomes of the poorer category in any society. This expectation is similar to what is expected if an investment in physical capital is carried out; it obviously will enhance productive capacity and output but if only the right manpower is in place. Previously, education was expected to raise the social and political consciousness and to supply the needed manpower needed in production in a modern economy. As a result, secondary, technical and higher education were emphasized on to serve this purpose. But in recent global context, education has gone beyond being seen as a means for improving production patterns, rather it is expected to be a mechanism for assuaging poverty through gainful employment.

The trend analysis carried out between 1980 and 2010 between unemployment and human capital revealed a similar pattern of movement between the two variables. Despite all efforts to provide educational opportunities in Nigeria, some factors could have actually accounted for a similar movement in the unemployment pattern and human capital development in Nigeria.

The quality of graduates produced in Nigeria remains a major issue of concern to employers of labour and industrialist in general. In fact, it is often discovered by graduates from most educational institutions in Nigeria that what they have is not in consonance with the employer’s requirement; this could therefore result in perpetuity in unemployment experienced or underemployment. Basically, the reasons that could be adduced for the poor quality of graduates include the theoretical-based content of the training received by the graduates compared to the practical-based orientation that is expected in real life application. Hence, gap between the theoretical content and real life requirements could cause the increasing pattern observed between human capital and unemployment rate.

In a bid to expand education to accelerate development, successive government in Nigeria have overlooked or underestimated the recurrent cost requirements that arise from capital investments. This results in the reduction of available funds for additional investment and wastage in the investment already made, (Omolewa and Okiei, 1999). The conjecture from this is that other productive units such as educational advancement, industrial development, enterprise promotion that could have been invested in will lack adequate resources, thereby leading to non-optimal use of resources, which indirectly have implications for the employment pattern in Nigeria as well as the development of human capital in Nigeria.

A number of studies have identified the well-being or the state of health of an economy as a factor that could affect employment patterns as well as human capital development. For instance, the trend of unemployment rate in relation to the GDP showed that in 1980 when GDP growth was 0.2%, unemployment rate was about 6.4%, while in 1990 when GDP growth was 10.9%, unemployment was 3.5%. By the year 2000, when GDP growth was 5.3%, unemployment rate was 18.1% and in 2008, while GDP growth was about 7%., unemployment rate was 14.9% (Central Bank of Nigeria, 2005 IFS, 2011). The trend analysis implied the GDP growth in Nigeria has not really mitigated unemployment problems in Nigeria. The implication of this development is that the state of health of the Nigerian economy has not been encouraging enough to boost production activities thereby causing unemployment to grow. Therefore, despite the increasing turnout of graduates from instructions of learning, the economic well-being may not facilitate the inverse relationship expected between unemployment and human capital development.

The phenomenal increase in the population of Nigeria could be another reason for the observed pattern in human capital and unemployment. According to the Nigerian population censuses in 1963, the population stood at 55,670,055; in 1991, the population figure was 88,992,290; and in 2006, the figure jumped to 140,431,790. The increasing need for education could have caused more persons to enroll in schools to acquire better education thereby causing a rise in the human capital pattern. But at the same time, in view of the population growth, if the graduate turnout has no absorptive productive units, unemployment will equally grow. For instance, the relationship between unemployment and population growth is illustrated. In 1980, population growth rate was 2.7%, while the unemployment rate was 6.4%; in 1990, population growth rate was 2.1%, while unemployment rate was 3.5%. In year 2000, the population growth rate was 3.1% while the unemployment rate was 18.1. The trend analysis of the data show that as population grows steadily, the unemployment rate rises simultaneously in a steady manner.

The nexus between unemployment pattern and human capital development in Nigeria is the funding pattern in Nigeria. For instance; from fig.4.1, the funding of education in relation to the total budget is graphed with unemployment. In 1980, when the funding of education was 3.8%, the unemployment rate was 6.4%. By 1990, the funding of education had gone up to 7.2%, unemployment then stood at 3.5%. In the year 2000, the funding of education was 12.5%, while unemployment was 18.1%.

The implication of this relationship is that the funding pattern of education which is aimed at improving the formation of human capital in Nigeria has not really fared so well, as a fair inverse relationship between funding of education and unemployment rate.

**Source: Major Financial and social indicators, Central Bank of Nigeria (2005)**

The GCT carried out revealed a uni-directional relationship between unemployment and human capital. According to the causality test, it is understood that the unemployment level in Nigeria has implications for the development of human capital in Nigeria.

When a fraction of public resources in Nigeria is set aside to enhance the human capital formation of youths and children in Nigeria through budgetary allocation to the educational sector, the inability to secure gainful employment to dissipate their skills into could have implications for the Nigerian economy as a whole. For instance, the prevalence of unemployment could lead to involuntary migration and brain drain. In a study carried out by Stark and Fan (2007), they extended both the “harmful brain drain” literature and the “beneficial brain drain” literature in their analysis by analyzing both the negative and the positive impact of migration by skilled individuals in a unified framework. Similarly, they extended the received literature on the “harmful brain drain” by showing that in the short run, international migration can result in “educated unemployment” and overeducation in developing countries, as well as a brain drain from these countries. A simulation carried out revealed that the costs of “educated unemployment” and overeducation can amount to significant losses for the individuals concerned, who may constitute a substantial proportion of the educated individuals.

It has been identified that persistence in youth unemployment is a major contribution to losses in human capital (Lawanson, 2007). In addition, the further development of human capital is proportional to the amount of time an individual has worked. It declines when an individual is unemployed. Particularly, the greatest challenge on youth unemployment is their use for political and military ends. Deprived of employment opportunity and livelihood, youths are actively mobilized by politicians and armed groups alike. Youth unemployment also has security implications for almost every country in Africa, since desperation often leads young people to fall prey to warlords, criminal gangs, or illegal migration syndicates (UNOWA, 2005; Awogbenle and Iwumandi, 2010). This act of criminality clearly will not involve just unskilled persons, but it will due to the rising unemployment include skilled persons. As a result, the positivity of the human capital graduates are endowed with could soon turn negative, thereby leading to wastage of resources and reduced productivity in Nigeria.

The limited growth of investment and technological innovation has constrained the labour absorption capacity of the industries and other non-agrarian sector of the Nigerian economy. This lack of capacity has aggravated the unemployment situation in Nigeria thereby eroding the continual build-up of human capital. For instance, problems associated with the transition away from high-cost industries that are heavily dependent on imports as well as the impact of globalization on domestic industries that are unable to compete with imported substitutes could have contributed to the limited domestic production, thus having implications for the employment rate in Nigeria.

As in many developing countries, women in Nigeria are likely to be more vulnerable to development compared to their male counterparts especially in the areas in of securing good employment as well as the level of formal education attainable. This may be due to bereavement, traditional property rights as well as inheritance practices. *Children’s and Women’s Rights in Nigeria: A Wake-Up Call* (2001) published by National Planning Commission and UNICEF, provides information on the problems and prospects of women in Nigeria.

**4.4 Proposal for Advancing Human Capital Development in Nigeria**

In order to achieve success in building the human capital of the Nigerian population, serious efforts are needed to create a society where everybody has the opportunity to develop their skills and display their abilities. For instance, economic growth must be evenly felt by every segment of the Nigerian populace. To achieve this, the widening income inequality needs to be closed up; while fiscal policies that promote income redistribution must be encouraged; in addition, private sector driven initiative and management which will being about positive results in human capital development must be encouraged while emphasis on benefits from public sector management must be reduced to the barest minimum.

Good governance is believed to be able to contribute significantly to the development of human capital in Nigeria. For instance, the capacity of individuals and businesses to exploit the potential of the Nigerian economy will be enhanced where the scourge of corruption and bad governace are reduced to the barest minimum. Besides, policies that will promote a social charter, where contract between individuals and government will be enhanced should be ensured. Particularly, government will recognize the rights and responsibilities of individuals such as education, health, housing and security and make adequate budgetary allocations. This should be done in view of the rich endowment of natural and human resources present in Nigeria; because for decades, the Nigerian socioeconomic conditions have declined despite increasing revenue from crude oil (NEEDS, 2004). In essence boosting economic growth and empowering people calls for a human rights approach to development planning where policies designed and implemented places people at the centre of development efforts.

At the level of individual or institutional development, the job card system used in Japan could be employed. In this system, job-hopping part-timers (Freeters), such as females who have gone through child care, single mothers, and anybody else that was not given the opportunity to develop their vocational abilities are being provided with career consulting by career consultants with specialized knowledge; besides, practical vocational training is being combined with on-the-job training by recipient enterprises and off-the-job training at education/training institutions (vocational abilities development program). In addition, after training evaluation of their vocational abilities and other information including their job history will be compiled in “job cards” to facilitate the appropriate matching between recruiters and job seekers and thus promote them obtaining stable employment. In order to further facilitate career and skill advancement, career development promotion grants to promote vocational ability evaluations; In addition, career consultants could being stationed at the human resource development of organizations in Nigeria. They will assist in dissemination and enlightenment of personnel’s, recruits and even mangers. Beyond these, efforts can be made being made so that career consultants can play a more active role at such places as private placement/employment support organizations, enterprises’ personnel/human resource departments, and vocational/career guidance at schools.

In view of whether migrants to host economies erode or enhance human capital development, previous studies have revealed that by adopting a dynamic framework, it can be shown that the positive externality of the prevailing, economy-wide endowment of human capital on the formation of human capital and a relaxation in migration policies in both the current period and the preceding period can facilitate “take-off” of a developing country in the current period and perhaps in the long-run. Thus, it is equally suggested that while a controlled migration of educated individuals may reduce the social welfare of those who stay behind in the short run, it will improves it in the long run, hence the need for a balanced policy (Stark and Fan,2007). These policies must be modified to suit host economies to incorporate where educated individuals need to be compelled to stay and when they may be free to migrate. In addition, where there may be need for experts from developed societies to boost and train national output, there should be no hesitation.

The increasing gap between skill acquired and employers’ requirement needs to be bridged by inculcating the need of employees in relevant fields in the curriculum of higher institutions. This is to ensure that graduates of tertiary institutions are suitable for employment purposes- be it self employment or as an employee within an organization. Besides, efforts should be made to improve on- the –job training programmes to enhance staff development as well as improved productivity.

Employment is the life line of any economy. “Human development will definitely be grossly undermined and impaired without employment”. How soon Nigeria sets to address the problems of mass. To tackle the challenge of unemployment in Nigeria depends on how speedily it is able to develop the millions of its labour force into a knowledgeable and skilled people needed for the required change (NEEDS document, 2004). The bawl for self-employment is a critical issue in recent times considering the fact that the search for job keeps increasing. The Entrepreneurship Development Programme, as an urgent mechanism to youth unemployment was specifically designed for the Nigerian youths, informing them about the world of business and opportunities to create their own businesses. The EDP provides youths with insights into entrepreneurship and enterprise; it aims to help them realistically consider the options of starting a small business or of self-employment. The reason why the EDP was set up was to create employment opportunities for self-employed youths as well as the other young people they employ. Besides, the programme was designed to bring alienated and marginalized youths back into the economic mainstream and giving them a sense of meaning and belonging as well as to help in addressing some of the socio-psychological problems and delinquency that arise from joblessness. In addition, to help youths develop new skills and experiences that can then be applied to other challenges in life; promote innovation and resilience in youths; promote the revitalisation of the local communities by providing valuable goods and services; capitalise on the fact that young entrepreneurs may be particularly responsive to new economic opportunities and trends.

The EDP as a short term approach to the unemployment crises is to cater for the out-of-school youth and the ever increasing number of jobless graduates. In the long run it will bring desired result of growth and development. The EDP seeks to move youth entrepreneurship into the mainstream of the economy with growth oriented and sustainable businesses. As an active learning entrepreneurship institute, the EDP is designed for new entrepreneurs, introducing them to basic elements of starting and managing a new business; the EDP creates training tools focused on the ways to improve performances and productivity of businesses, to encourage aspiring entrepreneurs to explore more deeply about their business ideas and in particular, the feasibility of turning a business idea into a profitable venture. The EDP believes that not everybody is an entrepreneur, but there is a bit of entrepreneurship in everyone. This just has to be identified, nurtured and developed and then sees how far one could go (Awogbenle and Iwumandi, 2010).

**5. Summary and Conclusion**

The paper enumerates examined the trend and pattern of unemployment and human capital in Nigeria between 1980 1nd 2010; as well as determining if any causal relationship exist between unemployment and human capital development in Nigeria; and to examine the kind of education needed to boost young people’s ability to secure good and relevant employment in the era of competing employment prospects. A direct relationship was observed in the pattern of human capital and unemployment between 1980 and 2010; while a unidirectional relationship showing that unemployment granger caused human capital was discovered. Among the immediate, short and long-term measures to be taken to advance human capital development through mitigating unemployment challenges was the need to develop improved economic health that gives the opportunity to Nigerians to develop; promotion of entrepreneurship culture through entrepreneurship development programme; good governance that ensures adequate budgetary allocation to the educational sector as well as provision of supportive infrastructural facilities; linking education and training with labour market requirements; promotion of enterprise culture which will induce self-reliance, improved migration policies that facilitate the inflow of experts from foreign countries; self-employment and curriculum re-structuring.

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