

# Impact of Unemployment on National Output in Nigeria, 1980-2011

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## Abstract

Unemployment has been identified as one of the major factors responsible for the prevailing high level of poverty, inequality and sluggish economic growth in Nigeria. It thus becomes a problem that requires thorough examination. This study therefore examines the impact of unemployment on national output in Nigeria between the period 1980 and 2011. The study makes use of secondary time series data sourced from the publications of the Central Bank of Nigeria, National Bureau of Statistics and other similar organizations. The Engle Granger co-integration approach was used to investigate the long-run relationship between unemployment and the growth of the Nigerian economy. Prior to the co-integration test, the incorporated time series variables were examined using the Augmented Dickey-Fuller (ADF) unit-root test. The estimated regression results shows that unemployment and Gross domestic product show a negative statistically insignificant relationship implying that in Nigeria, unemployment and Gross domestic product did not affect each other for the period under study. Appropriate recommendations were offered based on the findings.

**Keywords:** Unemployment, Investment, Money supply, Economic growth.

**JEL Classification:** E24, O11, O47

## 1. Introduction

Nigeria is a nation that is endowed with multifarious and multitudinous resources—both human and material. However, due to gross mismanagement, profligate spending, kleptomania and adverse policies of various governments of Nigeria, these resources have not been optimally utilized; they have not been adequately channeled to profitable investments to bring about maximum economic benefits. As a result of the foregoing, Nigeria has been bedeviled with a myriad of problems including unemployment and this has raised the level of poverty. In Nigeria, unemployment is well pronounced; many secondary school leavers and even graduates cannot find jobs, and many engage in jobs in which their potentials are not fully utilized. This indicates that there has been a steady fluctuation in the unemployment rate in Nigeria.

Unemployment has been identified as one of the major causes of poverty in Sub-Saharan Africa, Nigeria inclusive (Obadan, 1997). Indeed, unemployment is highly and positively correlated with poverty. Ogwumike (1998) observed that productive employment is a basic need and is a way of escaping from poverty. In Africa, the incidence of poverty has been increasing significantly for many years. For instance, it is documented that the number of poor people increased by about two-third between 1970 and 1985, and rose from 180 million (47% of the population) in 1985 to 265 million in the year 2000 (Aluyor, 2000). In the words of Adebayo (1999) and Egbuna (2001), unemployment leads to psychological problems of frustration, depression, hostility and criminal behaviours. In corroborating this opinion, Echebiri (2005) stressed that youth unemployment primarily encourages the development of street youths and area boys who were denied of legitimate means of livelihood to grow up in a culture that encourages criminal behaviours. This argument was supported by Chigunta(2002). According to him the unemployed youths survive by engaging in various activities such as petty trading, casual work, borrowing, stealing, pick pocketing, prostitution, touting and other illegal activities. Unemployment constitutes an impediment to social progress. Apart from representing a colossal waste of a country's manpower resources, it generates welfare loss in terms of lower output thereby leading to lower income and well-being (Raheem, 1993).

Bennel (2000) and Chigunta (2002) argue that the urban society is becoming increasingly criminalized, especially with the proliferation of youth gangs. Several studies including Igbinovia(1988) have shown that majority of prison inmates are youths aged 30 years and below who have no jobs. Also, delinquency, crime and drug abuse are on the increase among youths as a result of the unemployment crisis. Unemployment has also been categorized as one of the serious impediments to economic progress. Apart from primarily encouraging the development of street youths and area boys who were denied of legitimate means of livelihood to grow up in a

culture that encourages criminal behaviours; it represents a colossal waste of a country's manpower resources, and generates welfare loss in terms of lower output thereby leading to lower income and poor well-being (Akinboyo, 1987 and Raheem, 1993). Various studies have shown that unemployment has serious negative implications for macroeconomic performance (Oladeji, 1994; Umo, 1996; Rama, 1998; and Al-Habees and Rumman, 2012). As pointed out by these authors, the growth rate of output is a negative function of the growth rate of unemployment. Economic growth, one of the major macroeconomic objectives, is regarded as crucial – indeed, the driving force of conquering unemployment and poverty (Obadan, 1997).

However, although economic growth is necessary for reduction in unemployment and poverty, it is not sufficient, because growth alone cannot overcome all the crucial factors that contribute to unemployment. The foregoing appears to be the case with Nigeria; economic growth in Nigeria appears not to have provided the expected panacea for unemployment and poverty as a result of corruption and adverse policies of government. Unemployment is a very serious issue in Africa (Bello, 2003) and particularly in Nigeria (Oladeji, 1994 and Umo, 1996). Unemployment has increasingly come to be recognized as one of the serious socio-economic problems confronting the Nigerian economy.

Data reveals that unemployment has been in the double digit in Nigeria since the 1990s. From a rate of 7.5% in 1995, the unemployment rate increased gradually being over 19% in 2009. Evidence suggest that the structure of unemployment has been changing; while in the 1970s about 80% of the unemployed were those with primary school education or less, and graduate unemployment is less than 1%, by the 2000s over 20% of the unemployed are graduates (NBS, 2010). Disguised unemployment in the form of under – employment is also significant among this category. Evidence also suggest that unemployment is more prevalent in the Northern part of the country than other parts of the country; nine out of the twelve states with the highest rate of unemployment are in the North. These are Katsina (37.3%), Bauchi (37.2%), Gombe (32.1%), Adamawa (29.4%), Borno (27.7%), Kano (27.6%), Yobe (27.3%), Taraba (26.8%) and Jigawa (26.5%). Also, two (Bayelsa - 38.4% and Akwa-Ibom - 34.1%) out of the six states that makes up the Niger Delta South – South region are also among the highest twelve. Interestingly however, in 2005, Niger state and Zamfara state, both in the North recorded the lowest and highest rates of 0.2% and 51.1% respectively while the national rate of unemployment was 11.9% (Njoku and Ihigba, 2011).

The high rates of 'open' and 'disguised' unemployment in Nigeria represent a serious waste of human resources and offers an explanation for the prevailing poverty trap, high level of income inequality and the slow growth of the gross domestic output. It thus becomes a problem which requires thorough examination. In other words, the focus of the study is on the extent, dimension and persistence of the unemployment crises in Nigeria and the macroeconomic implication of this on national output between the period 1980 and 2011. The paper is divided into five sections with this introduction as Section 1. Section 2 considers the relevant theoretical framework and literatures while Section 3 contains the research methodology. Results of data analysis are presented in Section 4 along with the discussion while Section 5 concludes the paper with some recommendations.

## 2. Theoretical Framework and Literature Review

The population of every economy can be divided into two categories, the economically active and the economically inactive. The economically active population (referred to as labor force or working population) refers to the population of adults that is willing and able to work, including those actively engaged in the production of goods and services (employed) and those who are unemployed. The unemployed refers to people who are willing and are capable of work but are unable to find suitable employment. The economically inactive population, on the other hand, refers to people who are neither working nor looking for jobs. There seems to be a consensus on the definition of unemployment. Anyanwu and Oaikhenan (1995) describe unemployment as a state of joblessness. The International Labour Organization (ILO) defines the unemployed as numbers of the economically active population who are without work but available for and seeking work, including people who have lost their jobs and those who have voluntarily left work (World Bank, 1998:63). The total amount of the unemployed in an economy is often of concern to the government. However, the degree of unemployment in an economy is usually measured in terms of the unemployment rate. The unemployment rate refers to the number of the unemployed people in the economy expressed as a percentage of the total number of persons available for employment at a given time period i.e. the number unemployed as a ratio of the labour force..

There are divergent views on unemployment among the major schools of economics. According to the Classical economists, there are two types of unemployment namely voluntary and involuntary unemployment. Voluntary unemployment is the situation where individuals are able to work but are not willing to work at the prevailing wage rates. Involuntary unemployment, on the other hand, is the situation where individuals are willing and able to work at the prevailing wage rates, but cannot find work. Classical thinkers believe that if the labour market is liberalized, the flexibility of wages and prices guarantees reaching full employment at equilibrium, and hence, if unemployment occurs, it shall be voluntary. The neo-classical labour theorists argue

that high unemployment rate is caused by high wage. This means that if there is involuntary unemployment, the real wage will fall and unemployed people will find a job at a lower wage. The decrease in real wage implies lower costs to employers and it encourages them to employ more workers.

Keynesian economists argue that the key determinant of the employment level is not the real wage, but the level of effective demand for labour, and that unemployment occurs due to inadequate national income, which should be increased in order to increase effective demand until it is sufficient to reach full employment. Keynesian thinkers classified unemployment into four types viz: frictional, structural, cyclical and hidden unemployment. Frictional unemployment occurs because people are temporarily switching between jobs, searching for new or better ones. Structural unemployment occurs as a result of dynamic changes in the structure of the economy, which results in a mismatch between the skills of workers looking for jobs and the vacancies available, either due to technological changes or capital intensity. Cyclical unemployment occurs as a result of economic cycles that lead to a fall in aggregate demand or aggregate expenditure thus lowering employment opportunities while hidden unemployment describes the case where individuals are already employed but do not add to the GDP. This is widespread in developing countries with dense population especially where agriculture is the predominant sector (El-Tahawe, 2009).

According to Kuznet country's economic growth can be viewed as a long term rise in the capacity to supply increasingly diverse economic goods to its population; this growing capacity is based on advancing technology and the ideological adjustment that it demands (Todaro, 1998). This reflects primarily in form of a sustained increase in the national / per capita income of the country. In the classical framework, growth is considered as the outcome of increasing amount of productive factors (such as labour and capital) as well as improvement in technology. Keynesians considered that growth is demand determined; increase in aggregate demand stimulates higher investment and higher output. Generally, growth has various positive effects on the economy, although it can sometimes produce negative effects. The positive effects relate to the fact that it usually facilitate an increase in the general standard of living of the population. Income growth has positive effects on such development outcomes as human capabilities, literacy and health and thus, it enables human development. Growth reduces unemployment, and facilitates income redistribution and poverty reduction efforts and general improvement in welfare. However, it has been argued that growth could also produce negative effects (Oyedele and Lawal, 2010).

Various studies have shown that unemployment has serious negative implications for macroeconomic performance. Oladeji (1994) and Umo (1996), among others found in their studies that the growth rate of output is a negative function of the growth rate of unemployment. Bakare (2012) examined the implication of urban unemployment crisis on economic growth in Nigeria using standard Ordinary Least Square (OLS) multiple regression. His estimated coefficients support the idea that urban unemployment crisis had a large negative significant impact on economic growth during the period under review. Also based on the analysis, he argued that the past values of unemployment could be used to predict the future behaviour of economic growth in Nigeria. Amezaga (2012) attempted to measure the impact of economic growth on unemployment rate in Peru using data from monthly surveys for the whole country. The study confirm the negative association between unemployment rate and economic growth rate. Umaru, Donga and Musa (2013) investigated the effect of unemployment and inflation on economic growth in Nigeria between 1986 and 2010 using the Johansen cointegration and Granger Causality methods. Their result shows a one-way causation running from unemployment and inflation to economic growth. The Johansen cointegration result shows that a long run relationship exist between economic growth, unemployment and inflation; unemployment and inflation have a positive impact on economic growth. However, the result further suggest that the impact of unemployment on growth is weak and that the observed variation in economic growth may largely be attributed to inflation.

In 1962, economist Arthur Okun examined the inverse relationship between unemployment rate and economic growth for the post-war years in the United States. His estimations showed that a three percentage point increase in the quarterly change in real GDP was associated with a one percentage point decrease in the rate of unemployment (Okun, 1962). This statistical relationship between unemployment rate and the change in output is widely known as Okun's law and is particularly interesting because it is based on statistical evidence and not on economic theory. Various other studies have attempted to confirm this law in different socio – cultural environment. While the inverse relationship between the two variables is largely confirmed, the associated Okun's co-efficient is found to be unstable; in other words, it varies depending on time, age structure of the population and other contextual factors. In line with Okun's law, Al-Habees and Rumman (2012) found out that a weak but significant relationship exists between economic growth and rates of unemployment in selected Arab countries although the extent of the relationship vary across the countries.

### **3. Methodology**

#### **3.1 The Data**

The study makes use of secondary time series data sourced from the publications of the Central Bank of Nigeria,

National Bureau of Statistics and other similar organizations and includes the CBN Statistical Bulletin. The dataset spans the years 1980 - 2011 which is a period of 31 years and relates to the GDP and unemployment rate, as well as investment rate and money supply which were incorporated into the model as control variables. The Engle Granger co-integration approach was used to investigate the long-run relationship between unemployment and growth of the Nigerian economy. Prior to the co-integration test, the incorporated time series variables were examined for unit root using the Augmented Dickey-Fuller (ADF) test. The data were analysed using E-view (7.2) Statistical package.

### 3.2 The model

The Solow growth model is the starting point of most analysis of growth. The model is used to express the linear relationship between output and factor inputs under certain assumptions concerning input and output. It focuses on four variables viz: output (Y), capital (K), labour (L) and knowledge (A). However, the assumption concerning input and output is that output (Y) is a function of inputs L and K used and factor productivity (A) within the framework of the aggregate production function. At any time, the economy has some amount of capital, labour and knowledge combined together to produce output in the economy. Hence, the production function takes the form:

$$Y(t) = F\{K(t), A(t)L(t)\} \dots\dots\dots(1)$$

where t denotes time. From equation (1), two features of the production are specified. Time (t) does not enter the production function directly, but only through K, L and A. That is, output changes over time only if the inputs to production change. Second, A and L enter the model multiplicatively. AL is referred to as effective labour or technological progress. It can also be called labour augmenting or Harrod-Neutral. Y can be proxied by gross domestic product, L is proxied by employment / unemployment, K is proxied by investment and A is proxied by total factor productivity which is a constant. From the above and dropping t the time indicator for simplicity sake, equation (1) can be expressed as

$$Y = F(K, AL) \dots\dots\dots(2)$$

which is a linear form of the aggregate production function. Transforming equation (2) into its explicit form, the following econometric model of the aggregate production function can be obtained.

$$Y = \beta_0 + \beta_1 K + \beta_2 L + u \dots\dots\dots(3)$$

where  $\beta_0$ ,  $\beta_1$  and  $\beta_2$  are parameters to be estimated.

Considering the Cobb – Douglas form of the production function; a non-linear relationship between output and factor inputs is expressed. The Cobb-Douglas form was developed and tested with statistical evidence by Charles Cobb and Paul Douglas during 1900–1947. In its most standard form for production of a single good with two factors, the function is specified as:

$$Y = AL^\beta K^\alpha \dots\dots\dots(4)$$

where:  $\beta = 1 - \alpha$

- Y = total production (the monetary value of all goods produced in a year)
- L = labour input (the total number of person-hours worked in a year)
- K = capital input (the monetary worth of all machinery, equipment, and buildings)
- A = total factor productivity

$\alpha$  and  $\beta$  are the output elasticities of capital and labour respectively. These values are constants determined by available technology. Output elasticity measures the responsiveness of output to a change in levels of either labour or capital used in production, ceteris paribus.

Furthermore, if  $\alpha + \beta = 1$ , the production function has constant returns to scale in which case doubling capital K and labour L will also double output Y. If  $\alpha + \beta < 1$ , returns to scale are decreasing, and if  $\alpha + \beta > 1$  returns to scale are increasing. Assuming perfect competition and  $\alpha + \beta = 1$ ,  $\alpha$  and  $\beta$  can be shown to be labour and capital's share of output.

However, Cobb and Douglas were influenced by statistical evidence that appeared to show that labour and capital shares of total output were constant over time in developed countries; they explained this by statistically fitting least-squares regression of their production function. From the result, it is not certain whether constancy exists over-time, this has generated series of empirical analysis and validation. The production function has been applied in different areas of empirical analysis.

For application in this study the labour (L) expression in the model is viewed as a proxy for unemployment. The main basis of Cobb-Douglas production stemmed from the significance of labour in growth process in the model. The Solow growth model and Cobb-Douglas form of the aggregate production function are the main theoretical baseline model of production, expressing the relationship between output (Y) as a proxy for economic growth (GDP) and input (L) proxied by unemployment while capital (K) is proxied by private domestic investment or net investment.

Equation (4) could be transformed into its linear form by taking the logarithm. Thus,

$$\ln Y = \alpha_0 + \alpha \ln K + \beta \ln L \dots\dots\dots(5)$$

The appropriate econometric model to be estimated could thus be expressed as:

$$\text{Ln } Y = \alpha_0 + \alpha \text{ Ln}K + \beta \text{ Ln } L + \mu \quad \dots\dots\dots (6)$$

where  $\mu$  is a random disturbance term,  $\beta = 1 - \alpha$  and  $\alpha_0$ ,  $\alpha$  and  $\beta$  are parameters to be estimated. Therefore, equation 6 becomes:

$$\text{Ln } Y = \alpha_0 + \alpha_1 \text{ Ln}K + \alpha_2 \text{ Ln } L + \mu \quad \dots\dots\dots (7)$$

where

- Y = Growth rate of real GDP
- $\alpha_0 = A$  = Total factor productivity (a constant)
- K = capital input as proxied by net investment or Private Domestic Investment (PDI)
- L = Labour input as proxied by unemployment rate
- $\mu$  = error term

If Y, K and L are proxied by gross domestic product (GDP), investment (INV) and unemployment(UMP) respectively as defined above, then equation 3 becomes:

$$\text{GDP} = \beta_0 + \beta_1 \text{INV} + \beta_2 \text{UMP} + \mu \quad \dots\dots\dots (8)$$

where GDP is real gross domestic product, INV is investment level, UNM is unemployment level and  $u$  is the random variable. Incorporating money supply (MS) into equation (4) as a control variable to take of the effects of the money market and taking the logarithm, we have:

$$\text{Ln GDP} = \beta_0 + \beta_1 \text{Ln INV} + \beta_2 \text{Ln UMP} + \beta_3 \text{Ln MS} + \mu \quad \dots\dots\dots (9)$$

### 3.3 A Priori Expectations

From theory, unemployment rate is expected to have negative impact on economic growth while investment is expected to foster growth and development since an increase in investment represents capital formation which causes increase in national output. Also, in line with the classical theory of money (i.e.  $MV=PT$ ), an increase in the quantity of money in circulation will increase national output through the multiplier effect. Thus, we expect money supply to have a positive effect on output. Therefore, the expected signs of all coefficients in the estimated model are positive excluding the rate of unemployment which is expected to be negative. In other words, we expect the parameters  $\beta_1 > 0$ ,  $\beta_2 < 0$  and  $\beta_3 > 0$ .

## 4.0 Results And Discussion

**Table 1: ADF Unit-Root Test Results**

Variables	Intercept Model			Trend and Intercept Model			Order of Integration
	Tau-Statistic	Prob.	Critical Value	Tau-Statistic	Prob.	Critical Value	
<b>Ln(RGDP)</b>	-36.625*	0.0001	-3.670	-39.106*	0.0000	-4.297	1
<b>Ln UNM</b>	-4.498*	0.0012	-3.670	-4.751*	0.0034	-4.297	1
<b>LnINV</b>	-6.034*	0.0000	-3.670	-6.058*	0.0001	-4.297	1
<b>LnMS</b>	-3.147**	0.0336	-2.964	-3.138**	0.0361	-3.568	1

Note: \* and \*\* denote significant at 1% and 5% MacKinnon critical levels respectively

Source: Author's Computation

The results as shown in Table 1 do not reject the null hypothesis of “no stationarity” at levels implying that real gross domestic product (RGDP), unemployment rate (UNM), private domestic investment (INV), and broad money supply (MS) are not stationary at levels. But, the first difference series of the employed variables were found to reject the null hypothesis of “existence of unit-root” at 1% and 5% McKinnon critical levels. This implies that the first difference of real Gross Domestic Product (logRGDP), unemployment rate (UNM), private domestic investment (logINV), and broad money supply (logMS) are integrated of order one and these do converge to their long-run mean at first difference level.



**Table 2: Estimated Regression Results**

<b>Dependent Variable: Log(RGDP)</b>				
<b>Method: Least Squares</b>				
<b>Sample: 1980 2011</b>				
<b>Included observations: 32</b>				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
C	10.479	0.117	89.369	0.0000
LnUNM	-0.004	0.005	-0.852	0.4021
Ln(INV)	-0.204	0.038	-5.410	0.0000
Ln(MS)	0.355	0.034	10.463	0.0000
LnRGDP <sub>t-1</sub> = AR(1)	-0.013	0.046	-0.283	0.7793
<b>R-squared</b>	0.975947	<b>S.D. dependent var</b>		0.467876
<b>Adjusted R-squared</b>	0.972247	<b>F-statistic</b>		263.7365
<b>Durbin-Watson stat</b>	1.345704	<b>Prob(F-statistic)</b>		0.000000
<b>Inverted AR Roots</b>	-.01			

*Source: Authors' Computations*

Table 2 shows that the estimated values for Investment and Money Supply are statistically significant while the unemployment variable is not. The value of the adjusted R squared for the model is high implying that unemployment rate, investment and money supply explained 97% of the variation on Gross domestic product (GDP) over the period under review. The value of Durbin Watson is 1.35 for the model. This falls within the determinate region and suggests that there is a negative first order serial autocorrelation among the explanatory variables in the model. Since the econometric test on unemployment and Gross domestic product show a negative statistically insignificant relationship from the model, we accept the null hypothesis which states that unemployment and Gross domestic product do not have significant relationship in the long run. Based on the findings, it is evident that there is no significant relationship between Unemployment and Economic growth in Nigeria. This suggests that Nigeria's problem of sluggish economic growth is primarily not due to unemployment per se. Cursory observations suggest that gross mismanagement and profligate spending of tax payers' money by the political elites could be the factors responsible for the poor economic growth, high poverty incidence and poor standard of living of the people.

## 5. Conclusion and Recommendations

Given the findings of this study, it could be concluded that unemployment is not a major problem for economic growth in Nigeria as unemployment has a non significant impact on economic growth. The fact that the investment and money supply variables were significant suggest that low investment resulting from high interest rate charged by the financial institutions could be the factors accounting for the sluggish growth of the economy.

Based on the findings, the following recommendations become pertinent if rapid economic growth is to be generated in Nigeria:

1. Efforts should be made to further reduce the level of unemployment in the country by putting in place direct and indirect measures capable of creating jobs through labour intensive industrialization and agricultural development.
2. Programmes of integrated vocational training and re-orientation of economic activity towards self employment should be encouraged in order to minimize unemployment crisis.
3. Given that the highest incidence of unemployment is observed in the Northern states, deliberate efforts should be made to boost employment creation in these areas by focusing on small scale enterprises and agricultural development.
4. To compliment the above, there is need for government to encourage the reduction of interest rate on loans to facilitate increased investment in the economy.
5. An enabling environment should be created for domestic and foreign investment by ensuring rapid resolution of the security challenges facing the country, providing the needed infrastructural facilities and ensuring better power supply.

## References

- Al-Habees M. A. and Rumman M.A. (2012) The relationship between unemployment and economic growth in Jordan and some Arab countries, *World Applied Sciences Journal* Vol. 18(5) 673 - 680
- Aluyor, V. (2002), World Bank, Women And Poverty Alleviation. The Punch Newspaper, Nigeria, April 28,
- Adebayo A. (1999) Youth Unemployment And National Directorate Of Employment Self-Employment Programmes. *Nigerian Journal of Economics and Social Studies*. 41(1), Pp. 81-102.
- Amezaga M.J.O. () Unemployment and economic growth in Peru: 2001 - 2012

- Anyanwu, J. C. And Oaikhenan, H. E. (1995), *Modern Macroeconomics. Theory and Applications In Nigeria*. Joanee Educational Publishers Limited, Onitsha, Nigeria. ..
- Bakare A. S. (2012) Stabilization policy, Unemployment Crises and Economic Growth in Nigeria, *Universal Journal of Management and Social Sciences* Vol. 2, No.4; April 2012
- Bello T. (2003) Attacking unemployment hurdles in the fragile economies of the Sub-Saharan Africa: The experiences of Nigeria.
- Central Bank of Nigeria (2005). Statistical Bulletin Vol. 16, December
- Chigunta, F. (2002): "The Socio-economic Situation of Youths in Africa: Problems, Prospects and Options." A Paper Presented at the Youth Employment Summit, Alexandria, Egypt, pp. 1-13
- Echebiri, R.N. (200): "Youth Unemployment and Job Perceptions among Youths in Rural Southeastern Nigeria". Paper presented at the 2001 conference of Agricultural Society of Nigeria.
- Egbuna, E.N. (2001); Food Production: An Africa Challenge. *Central Bank Of Nigeria Economic And Financial Review*. 39(1):13
- Igbinovia, P. (1998). "Perspectives on Juvenile Delinquency in Africa". *International Journal of Adolescence and Youth* 1(2) 131-156.
- Njoku A. and Ihugba O. A. (2011) Unemployment and Nigerian Economic Growth (1985-2009) Proceedings of the 2011 International Conference on Teaching, Learning and Change
- Obadan M.(1997), Introduction and Overview, In Oyejide T. A. and Obadan M. I. (Eds.) *Applied Economics and Economic Policy – In Honour of Emmanuel C. Edozien*, Ibadan University Press, Ibadan.
- Oguwumike, F. O. (1998), Poverty Alleviation Strategies In Nigeria. In: Measuring And Monitoring Poverty In Nigeria, Proceedings Of The Seventh Annual Conference Of Zonal Research Units Of Central Bank Of Nigeria.
- Okun, A. M. (1962). *Potential GNP: Its measurement and significance*. Cowles Foundation. New Haven: CT: Yale University.
- Rama, M. (1998). "How Bad is Unemployment in Tunisia? Assessing Labour Market Efficiency in a Developing Country". *World Bank Research Observer* 13(1), 59-78.
- Todaro, M. P., (1985), *Economic Development in the Third World*. Longman, London.
- Tokunbo S.O (2005). Macro econometric Analysis of Growth, Unemployment And Poverty in Nigeria. *Pakistan Economic and Social Review* Volume XLIII, No. 2 (Winter 2005), pp. 249-269
- Umaru A., Donga M. and Musa S. (2013) An Empirical Investigation into the Effect of Unemployment and Inflation on Economic Growth in Nigeria, *Interdisciplinary Journal of Research in Business*, Vol. 2, Issue. 12, pp.01- 14.
- Umo, J. U. (1996); "Introductory Overview" in J. U. Umoh (ed.) *Towards Full Employment Strategy in Nigeria*, National Manpower Board, Lagos.
- Vandemortele, Jan (1991); "Employment Issues in Sub-saharan Africa," *AERC Special Paper No. 14*, August, AERC Nairobi