A causal relationship between unemployment and economic growth

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Abstract

Unemployment has been seen as a world-wide economic problem and has been categorized as one of the serious impediments to social progress. Apart from representing a huge waste of a country's manpower resources, it generates welfare loss in terms of lower output thereby leading to lower income and poor standard of living. The study found adopts the VAR Granger Causality approach to examine the direction of relationship between unemployment (UNEMP) and economic growth rate (RGDP) in Nigeria covering the period of 1981-2016. Key findings revealed a unidirectional VAR Causal relationship between unemployment and economic growth implying that the level of economic activities does not granger cause the rate of unemployment in Nigeria. Hence government should largely enhance the survival of small and medium scale companies which can help create jobs, lower unemployment and cause sustainable real output growth, further resulting in increase in the rate of employment generation in the economy.

1. Introduction

Unemployment is generally seen as a macro-economic problem as well as socio-economic problem which arises as a result of insufficient and non-availability of jobs to correspond with the growing population, even those who are employed sometimes live with the fear of being unemployed due to job insecurity and retrenchment of workers. There is employment of factors of production if they are engaged in production. The term unemployment could be used in relation to any of the factors of production which is idle and not being utilized properly for production. However, with reference to labour, there is unemployment if it is not possible to find jobs for all those who are eligible and able to work. Labour is said to be underemployed if it is working below capacity or not fully utilized in production Anyawuocha (1993)

In the study of unemployment in Africa, Okonkwo (2005) identified three cause of unemployment, the educational system, the choice of technology which can either be labour intensive, capital intensive and inadequate attention to agriculture. The use of machines to replace work done by labour and computerization has contributed to these social problems in the sense that what forty men can do manually a machine will only need like five men. Therefore, the remaining thirty five remain unemployed.

One particular feature of unemployment in Nigeria is that it was more endemic in the early 80's than any other period. According to Udabah (2005), the major factor contributing to low standard of living in underdeveloped countries is their relative inadequate or inefficient utilization of labour when compared with advanced nations. Unemployment rate is measured by the proportion of the labour force that is unemployed divided by the total number of the labour force. The total labour force was projected at 61,249,485 in 2007 indicating an increase of 3.9%. Total employment in 2007 stood at 52,326,923 compared with 50,886,836 in 2006. This represents an annual increase of 2.8%. The labour force consists of the number of people

ageing 18 and over who are employed that is, those who currently have jobs and unemployed (those who do not have jobs but who are actively looking for work). Individuals who do not fall into either of this group such as retired people and discouraged workers are not included in the calculation of the labour force.

2. Historical facts on structural distribution of unemployment

Structural distribution of Unemployment rate in Nigeria.

Overall unemployment rate amounted to 21.1% in 2010 which was a slight increase from 19.7% in 2009, when disaggregated, the rate of unemployment for 2010 was 15.2% for Urban and 29.2% for rural. Also, disaggregation of unemployment rate by educational levels and age groups showed that graduate unemployment in rural areas was highest at 24.2%. The figure for their counterparts in urban areas was 15.2%. Between the age group of 15- 24 years, the unemployment rate was 31.5% in urban areas while 37.3% in rural areas. Taking cognizance of the 9-3-4 basic educational system in Nigeria with average enrolment age at 5 years old it was clear that in 2010 unemployment was most prominent among fresh graduates below 25 years of age.

Female national unemployment was very high at ages below 25 years which was 36.1%, while male national unemployment stood at ages below 25 was 35.6% in 2010.

Distributing unemployment rate by groups, the National Bureau of Statistics 2010 data indicated that of the total unemployed Nigerians (of about 66%), unemployment was more within 15 - 44 years age bracket, indicating that the young and vibrant Nigerians suffer more unemployment challenges than the older ones.

Table 1: Unemployment Rates by Levels of Education, Age Groups and Gender (2010)

| EDUCATIONAL LEVEL | NIGERIA (%) | | | | | | | | |
| | URBAN | | | RURAL | | | TOTAL | | |
	Male	Female	Both	Male	Female	Both	Male	Female	Both
BELOW PRIMARY	12.4	13.7	13.2	24.8	30.0	27.5	21.5	23.7	22.7
PRIMARY	10.3	14.7	12.7	18.0	25.8	21.7	15.6	21.9	18.7
JSS	13.4	16.9	15.2	22.6	29.4	25.6	19.5	24.2	21.7
VOCATIONAL/COMMERCIAL	10.7	18.5	14.4	21.6	27.5	24.5	15.2	22.4	18.7
SSS	14.2	17.3	15.6	27.2	30.3	28.4	21.2	23.4	22.1
NCE/OND/NURSING	18.3	19.5	18.9	25.3	28.0	26.2	21.9	22.7	22.2
BA/Bsc/Bed/HND	19.1	26.7	21.7	29.5	34.0	30.8	22.6	28.8	24.6
MSC/MA/M Adim	10.1	14.3	11.1	19.4	27.0	20.9	12.6	17.5	13.7
AGE GROUP									
15-24	32.2	30.9	31.5	36.7	38.0	37.3	35.6	36.1	35.9
25-34	16.4	19.0	17.8	21.2	31.0	26.5	19.5	26.7	23.3
35-44	8.5	13.8	11.0	14.5	26.8	20.3	12.3	21.8	16.8
45-54	8.6	11.7	10.0	13.5	22.4	17.1	11.8	18.2	14.4
55-64	10.6	13.1	16.6	16.5	21.9	18.3	14.6	18.4	16.0
NATIONAL	13.3	17.1	15.2	19.9	29.2	24.2	17.7	24.9	21.1

Source: NBS 2015
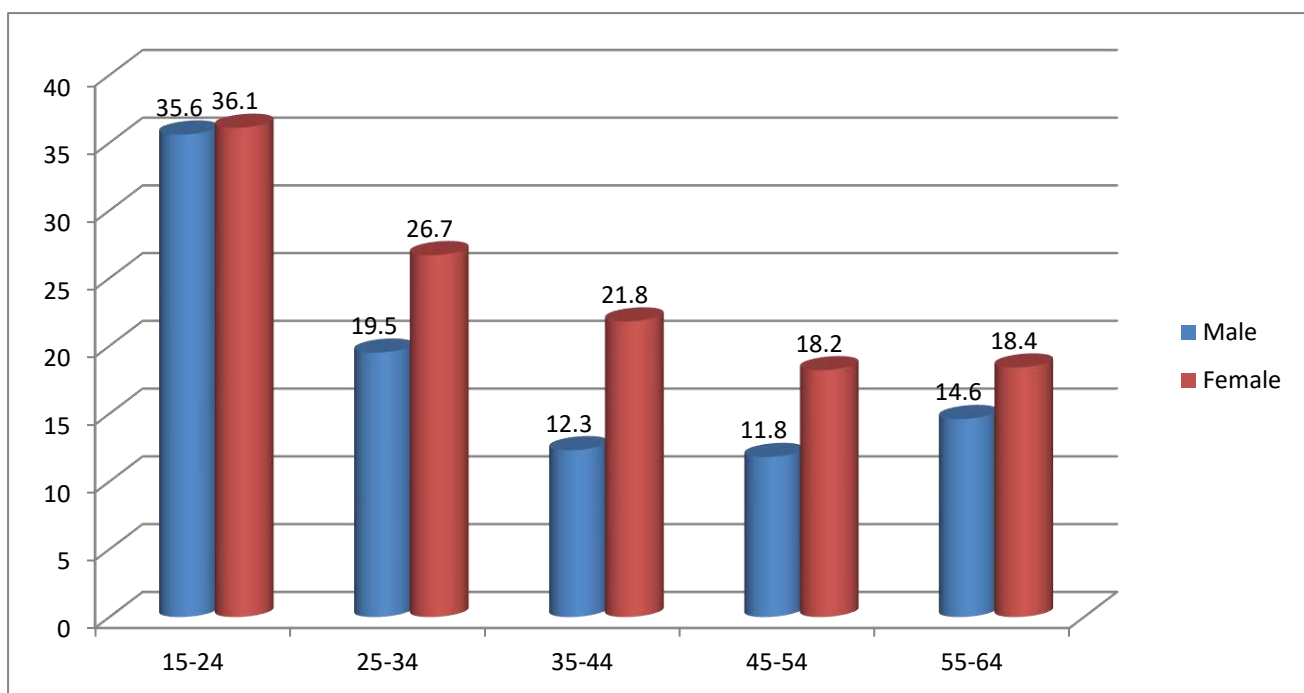
Source: Computed from Excel

Table 2: Unemployment Rates by Levels of Education, Age Groups Sector and Gender (2011)

EDUCATIONAL Level	Urban (%)	Rural (%)	Composite (%)
Never Attended	19	22.8	22.4
Primary School	15.5	22.7	21.5
Modern School	14.5	27.5	24.3
VOC/COMM	34.5	27	28.7
JSS	16.6	36.9	33.4
SSS O'LEVEL	13.9	22.5	20.1
A LEVEL	34.1	29.7	31
NCE/OND/NURSING	17.2	22.5	20.2
BA/BSc/HND	16.8	23.8	20.2
TECH/PROF	5	27.9	20.6
MASTERS	3.2	8.3	5.1
DOCTORATE	11.1	7.7	9.1
OTHERS	31.3	36.1	35.5
AGE GROUP			
15-24	33.5	38.2	37.7
25-44	16.3	24.1	22.4
45-59	12.5	19.6	18
60-64	17.8	22.1	21.4
SEX			
Male	16.9	25.1	23.5
Female	17.2	26.1	24.3
NATIONAL	17.1	25.4	23.9

Source: NBS 2015.
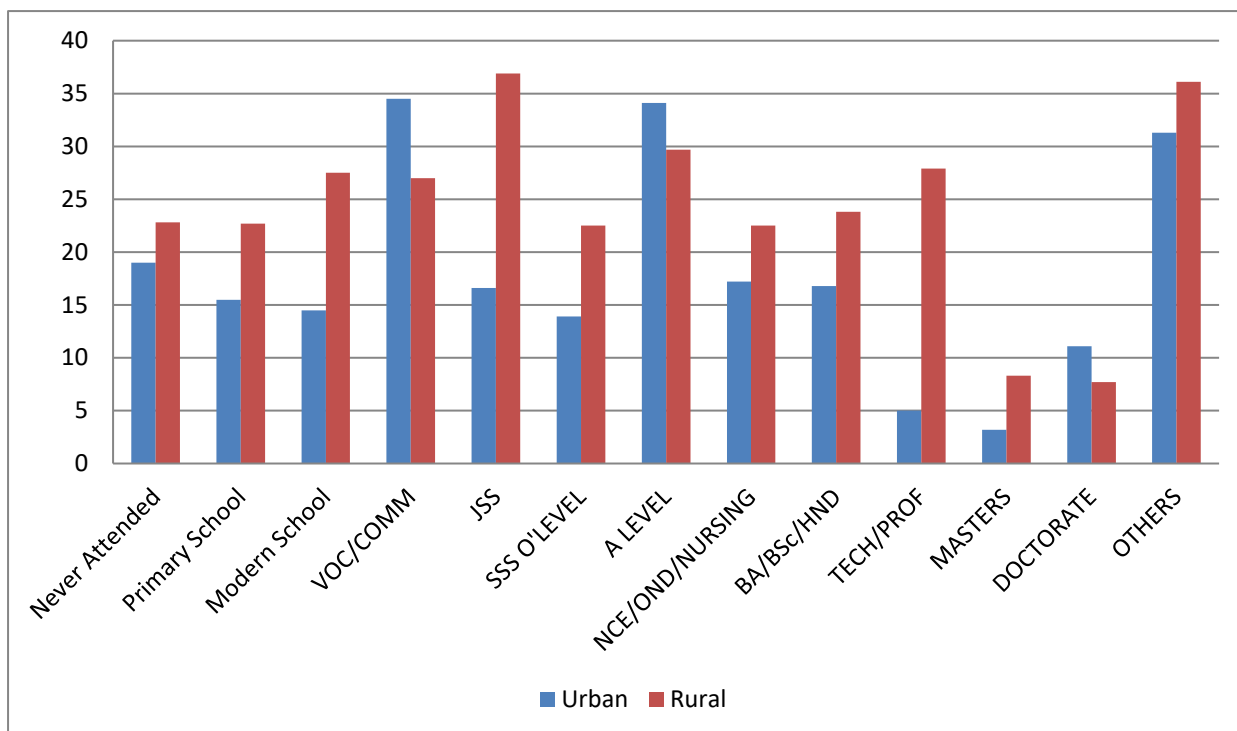
Source: Author's Computation from Excel

3. Estimation and discussion of results

VAR causality test

Granger causality shows the causal relationship which exists between the dependent variable and each of the independent variable. This test was carried out to determine the direction of the causality between unemployment rate and real gross domestic product in Nigeria.

Table 3: VAR Granger Causality/Block Exogeneity Wald Tests

VAR Granger Causality/Block Exogeneity Wald Tests
Sample: 1981 2016
Included observations: 35

Dependent variable: LRGDP			
Excluded	Chi-sq	Df	Prob.
UNEMPL	12.63937	4	0.0132
All	12.63937	4	0.0132
Dependent variable: UNEMPL			
Excluded	Chi-sq	Df	Prob.
LRGDP	5.099480	4	0.2772
All	5.099480	4	0.2772

Source: Author's Compilation using Eviews 9.0

The result above revealed that the null hypothesis that Unemployment rate does not granger-cause real gross domestic product is rejected at 5 percent level of significance since its p-value of 0.0132 is less to 0.05. But, the null hypothesis that real gross domestic product does not granger cause unemployment rate in Nigeria is not rejected at 5 percent level of significance since its p-value of 0.2772 is greater than less to 0.05. This implies that there is a Uni-directional causality between the Real GDP and Unemployment in Nigeria which flow from the latter to the former.

4. Conclusion

Economist over the years had argued on the magnitude and the direction of effects that changes in real economic growth rate will have on unemployment in an economy or vice versa. Most of the time, they fail to differentiate between increase in output that is due to capacity utilization and those that are due to long term growth. An anticipated growth in real output could affect employment positively because wage setting is affected by higher output growth which means higher future real wage. This raises the value of employment relative to unemployment, so employees are likely to moderate their wage demand to reduce the risk of lay off (Manning. 1992). This research study concluded that long term growth in real output does not granger cause unemployment rate during the period under review.

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