Effects of Economic Growth on Poverty Reduction In Nigeria

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Abstract: This paper explored the effect of economic growth on poverty reduction in Nigeria using a time series data spanning from 1980-2016. Unit Root and Johansen Cointegration tests were carried out to determine stationarity and long-run relationship among the variables respectively, while the VAR was carried out to determine the effect of Government expenditure, unemployment growth rate and Real GDP on poverty incidence. The result shows that Government expenditure is positively related to poverty incidence. This suggests that the poor are not benefitting from the economy at large, especially from total government expenditure. The GDP coefficient (a proxy for economic growth) conforms to the a-priori expectation, which depicts a negative relationship between economic growth and poverty incidence, while unemployment relates positively to poverty reduction. Therefore, the government should work more on job creations by focusing more on the labour-intensive sectors, basically, Agricultural and Industrial sectors. Also, economic growth and government spending should be directed at the pro-poor projects, mostly the Bottom-40 percent by providing the essential amenities, especially good infrastructures, financial benefits and aids to families with dependant children, and old people, also, medical aids should be available for the poor.

Keywords: Economic growth, Poverty Incidence, GDP, Labour-intensive, Vector Autoregressive

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I. Introduction

Background to the Study:
Poverty is the state of being in lack. It is the inability to meet basic needs. Poverty is also the inadequacy of resources which are essential to meet basic human and economic needs. Poverty is evident in various ways which include among others, lack of income, inadequate food supply, lack of, or no access to education and other essential amenities, shortage or unavailability of productive resources for sustainable livelihood, malnutrition, ill-health, homelessness (Ijaiya et al. 2011). Traditionally, the concept of poverty is viewed in terms of insufficient income required to meet basic human necessities of life, like food, clothing, shelter and other productive resources. However, the multi-dimensional nature of the concept of poverty has revealed that poverty is more in-depth than lack of essential amenities. Poverty is multidimensional, it is lack of development. World Bank (2002) also stated that poverty is hunger, it is lack of shelter, it is being sick and unable to visit the hospital to see a doctor, It also connotes no or limited access to school, and not knowing how to read, It is joblessness, and fear for the future, living one day at a time. Poverty is a disaster.

The poor also lack participation in decision making in social and cultural life and the society as a whole. Poverty can also mean a state of being extremely poor, insufficient in amount, and inferior in quality. (World Bank 1990, United Nations 1995), hence, being poor limits ones' say in public. However, the widespread of poverty as a concept is not fully understood. Conventionally, before globalisation, earnings below a minimum level of living were referred to as poverty. The poor were seen as people who fell below a certain level of income, but the advent of globalization reviewed this overarching measure of poverty, recent statistics categorized people living on less than a dollar (US$1) per day as being "Extremely Poor", while those less than 2 dollars (US$2) per day as being "Poor". Hence, income poverty does not adequately reflect poverty as it is widely understood. Poverty has been a major socioeconomic problem which is predominant across the globe.

Economic Growth
Economic growth is the increase in income per capita of a country over a period of time. It is measured by the increase in the national productivity of a country which is reflected by the GDP (gross domestic product) of a country per year. Nigeria is an open economy whose economic activity largely depends on the international community. Nigeria's economic cycle is influenced (among other factors) by foreign investments and exchange rate, which are key factors that affect importation, and consequentially, importation and foreign transactions are important parts of Nigeria's aggregate economic activities. Therefore, Nigeria's economic growth has been relatively unimpressive and questionable, given the abundant natural resources at her disposal. On the average between 2010 and 2018, the GDP growth rate has been averaged 1.07percent annually, with an all time high of 10.59percent in the third quarter of 2010, and the lowest record of -13.98percent in the first quarter of 2016.
Poverty Trend in Nigeria

The Nigerian economy is consistently faced with a high level of extreme and absolute poverty with a constant rate of over 50 percent annually. For instance, the poverty headcount ratio at $1.90 poverty line in 1985 was 53.3 percent, rose to 57.1 percent in 1992, and four years later, it increased to 63.5 percent, and in 2010, it was 69.2 percent, it grew and stood at 72 percent in 2014. This has led to a lot of concerns and controversies among economists; hence the trend of poverty in Nigeria has been described as “odd” given the country’s economic size and growth (World Bank 2014).

In spite of the nation’s rapid economic growth, a more significant percentage of the populace is still living in poverty. In term of growth, Nigeria’s gross domestic product (GDP) grew by 69.7 percent from 1992-2009 and by 27.2 percent from 2009-2016. In contrast, the poverty gap ratio fell from 31.1 percent to 21.8 percent from 1992-2009 (World Bank 2015b). This implies that the proportion of the population that is poor has only decreased slightly (EPAR 2016). Over 57 years of independence, poverty still poses a threat to our wellbeing as a nation. The level of absolute poverty indicates that development policies aimed at increasing the Gross National Income per capita are not efficiently in reality. In 2003-04 for instance, the poverty incidence was 64.2 percent of the population which indicated that over 85 million people were below the poverty line using the per capita approach. Also, in 2010, the fraction of the population below the poverty line was 62.6 percent, amounting to over 95 million people within this category (World Bank Indicators 2014b; NBS 2009). Poverty in Nigeria has constituted a menace to the overall performance of her economy, and cannot be ignored if development is desired. However, growth and development cannot be meaningfully achieved without addressing poverty in Nigeria (Jelilov, 2016)

Statement of the Problem

Economic growth is vital for poverty reduction generally. However, the extent of the effect of economic growth on the reduction of extreme poverty is a factor of the economic situation prevalent in the country. Although in Nigeria, poverty has declined slowly. However, when compared with other Sub-Saharan African countries with the same average GDP growth rate of about 3.90 percent, over half of the population is still considered as poor. Hence, Nigeria is still categorized as an impoverished country (IMF, 2018). The significance of economic growth on poverty depends highly on the inequalities that are prevailing in an economy. Conversely, it is expected that an increase in the growth level of the economy results in a decrease in poverty rate. Although, this is dependent on a lot of factors like the size of the labour force, unemployment rate, aggregate productivity level, government spending, wealth and income distribution among others (IMF 2018)

Poverty is one of the primary obstacles to growth and development in Nigeria (Gangas, 2017) Poverty in Nigeria is deep, it is a paradox, because Nigeria has the full potential for growth and development, which consequentially lessens the level of absolute poverty across the country with focus on increasing the household income of the people. Why is the rapid economic growth in Nigeria not instrumental in poverty reduction? Also, how could a country with the size and wealth of Nigeria have a very high rate of poverty? In addition, rapid growth might not be the best for the poor, because of the high possibility of being neglected or marginalised by the structures of the changes that accompany recent growth (Todaro, Smith 2013). However, well-designed poverty programs coupled with high-quality sustainable and timely growth could accelerate the reduction of absolute poverty.

Several scholars have empirically found that there is a relationship between economic growth and poverty reduction, but it is an exceptional case for Nigeria. The slope of the relationship between these two economic variables is controversial and inconclusive. Some scholars agreed that there is a positive relationship between the duo, though with disagreement on the causality direction (Hassan, 2012). Others find that GDP and poverty are unrelated, or that poor quality data makes it difficult to determine their relationship (EPAR, 2016). Therefore, standing on these existing works of literature, and given the fact that growth has not significantly reduced poverty in Nigeria, (Hassan, 2012) there is, therefore, the need to examine the effects of economic growth on poverty in Nigeria. In other words, do the poor benefit more from growth? If No, why? What is responsible for the disproportionate or disparity between economic growth and poverty reduction in Nigeria?

Theoretical Review

There are lots of economic theories and thoughts that advocate poverty reduction in so many ways: The Classical Welfare Economists (Adam Smith, Karl Max etc.) argued that people’s welfare and wealth is a function of the value of a commodity produced by their labour as well as their purchasing power over other people’s labour. In other words, higher labour leads to higher output and income which in turn increases welfare. This school of thought also favours the “invisible hand”, i.e., the free operation of the market system automatically. Also, proposes that welfare can further be maximised by increasing expenditure on public works. The Neoclassical advocates for market system where development and growth are all determined by the forces of demand and supply on the other hand, explains that poverty is beyond the individual control; basically, poverty is due to market failures notably. They also assumed that there is “full employment” in the economy and that unemployment is by choice. Simply put, the poor are poor by choice”, because they are voluntarily

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unemployed. The Say's law states that "supply creates its own demand", hence, problem of Overproduction and Unemployment" remains invisible.

The Keynesian school of thoughts brings to a focus macroeconomic forces and the role of government in ensuring and providing economic stabilisation and public goods. It is generally believed that employment is totally dependent on "Effective Demand", which leads to output, and output creates income. Keynes believes that people are poor because they are unemployed; hence, poverty is involuntary. This research is therefore situated on the Keynesian school of thought which established that poverty is as a result of unemployment and it is involuntary.

**Empirical review**

In an attempt to examine the importance of economic growth on poverty (Ijaiya et al., 2011), used multiple regression analysis, taking the time subscript into consideration coupled with a difference-in-difference estimator that describes poverty reduction as a function of changes in economic growth. The result indicates that the initial level of economic growth does not affect poverty reduction; however, a change in economic growth positively is prone to poverty reduction. The study, therefore, proposes stable macroeconomic policies, massive investment in Agriculture, infrastructural development and good governance.

The impact of GDP growth rate on poverty reduction in Nigeria was empirically studied by (Hassan 2012) using secondary data from 1986-2012. The study employed the OLS regression technique to analyse the relationship between unemployment (which is a proxy for poverty), and the GDP (which is the variable for economic growth), the result showed that there is a weak relationship between unemployment rate and the GDP, instead of an inverse, it was positive. In other words, when the GDP increases, the unemployment rate also increases. When people cannot work and earn income, they remain poor. Hence, growth has not impacted on the poor. This is because job availability and creation in Nigeria lack sufficiency that is enough to reduce the unemployment and incidence of poverty over the period. He, therefore, recommends that priority should be placed on key sectors like agriculture industries which are highly effective and capacitated to generate and absorb more labour, thereby solving unemployment problems and reducing poverty incidence on the citizens.

E.P.A.R. 2016, report on economic growth and poverty in Nigeria discovered that poverty level does not appear to have fallen even as GDP and GNI per capita measures have increased. Another major contributive factor is inadequate and inconsistent data quality, and other measures might have affected the analyses, literature indicate that Nigeria's high unemployment rate, corruption and poor educational and health factors may be reasons why economic growth has not led to expected reductions in poverty.

The relationship between economic growth and poverty reduction in Nigeria was explored empirically using time series secondary data spanning between 1980-2013. The data was analysed using the OLS (having checked the time series data for stationary and spurious regression). The result showed that the relationship between poverty index and economic growth is inverse, in other words, a reduction in poverty level increases economic growth. Also, there is a negative relationship between unemployment and GDP in Nigeria; this implies that if unemployment rate increases, it will also lead to increase in poverty level because of unproductive labour. Furthermore, per capita income and economic growth are positively related. The author, therefore, recommends quality fiscal policies that will promote private investment and productivity among others (Gangas, 2017). The impact of government spending (recurrent and capital), on economic growth in Nigeria was examined empirically, using multiple regression analysis and time series data from 1981-2012 by (Jelilov, 2016). According to the author, the government has a major role in stabilizing, efficient resource allocation, income distributions using the fiscal and monetary policies when needed. The study aimed at investigating rationale behind the disproportionate difference between government spending and economic growth in Nigeria. In his results, it was discovered that increase in government expenditure lead to output expansion, which is in line with Keynesian's postulates.

### II. Materials and Method

This study employs secondary data which were sourced from National Bureau of Statistics (NBS), Central Bank Statistical Bulletin, World Bank Indicators. The study used annual time series data on poverty indices, GDP (as a proxy for economic growth), unemployment growth rate, and government spending, spanning from 1980-2016.

**Model Specification**

This study adopted the analytical tool employed by (Gangas, 2017; Hassan, 2012) as the foundation for the model. However, this study introduced population growth rate in the model. Poverty incidence was the dependent variable, while the explanatory variables were: GDP (proxy for economic growth), population growth rate, and unemployment growth rate. Therefore, the model is expressed as:

$$Pov_{it} = \alpha + \beta_2RGDP + \beta_3GOVE + \beta_4UNEM + \mu$$

Where:

- $Pov_{it}$ = Poverty Incidence
RGDP = Real Gross Domestic Product growth rate
GOVE = Government Expenditure
UNEM = Unemployment rate
μ = The Error or disturbance term.
α = The intercept.
β₀, β₁, β₂ = The slopes of the parameters

Analytical Technique and Apriori Expectation

In this study, Poverty Incidence was regressed on the real GDP, Population growth rate, and Unemployment growth rate. The data were first tested for stationarity using the Augmented Dickey Fuller ADF test, then, the long run relationship was examined using the Johansen cointegration test, and lastly, the Vector Autoregression Estimates (VAR) was carried out to estimate the effects of GDP, Population growth rate, and unemployment on poverty incidence. Theoretically, the intercept is expected to be a positive integer. It is anticipated that rapid economic growth will have a positive and significant impact on poverty reduction; hence, the RGDP will have an inverse relationship with the poverty reduction rate, giving a (-) negative sign. Also, the expectation holds that unemployment rate and poverty will have a negative relationship; hence the sign must be negative. The coefficient of the government expenditure should display a negative sign, indicating that (ceteris paribus) an increase in government expenditure leads to a decrease in poverty; therefore, the sign must be negative.

III. Results and Discussion

The result of the unit root shows that all the four variables are stationary, though at a different order of integration. Government Expenditure and Poverty Incidence were not stationary even after being differenced the second time, while unemployment and GDP were integrated of order I(1), this automatically rules out the use of the error correction model (ECM). In other to avoid spurious regression, the cointegration test of the variables was carried out, and the result shows that there is a long run relationship among the variables; therefore the regression was estimated using the Vector Autoregression estimation (VAR). The R² of 0.76, shows that 76 percent of the variations in the dependent variable is explained by the explanatory variables, and it implies that the equation really fit the model. The results are therefore given below:

### Augmented Dickey Fuller Test (Unit Root Test)

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>COEFFICIENT</th>
<th>CRITICAL VALUE</th>
<th>PROBABILITY</th>
<th>ORDER INTEGRATION OF</th>
</tr>
</thead>
<tbody>
<tr>
<td>lnUnem</td>
<td>-0.753979</td>
<td>-4.064869</td>
<td>0.0004</td>
<td>I(1)</td>
</tr>
<tr>
<td>LnGDP</td>
<td>-1.009112</td>
<td>-4.815470</td>
<td>0.0002</td>
<td>I(1)</td>
</tr>
<tr>
<td>lnExp</td>
<td>-3.327732</td>
<td>-6.049713</td>
<td>0.0000</td>
<td></td>
</tr>
<tr>
<td>PovI</td>
<td>-2.523411</td>
<td>-4.112324</td>
<td>0.0000</td>
<td></td>
</tr>
</tbody>
</table>

### Johansen Cointegration Test

Unrestricted Cointegration Rank Test

<table>
<thead>
<tr>
<th>Hypothesized No. of CE(s)</th>
<th>Eigen Value</th>
<th>Statistic</th>
<th>Critical Value</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>At most 2*</td>
<td>0.443184</td>
<td>17.04469</td>
<td>15.49471</td>
<td>0.0290</td>
</tr>
<tr>
<td>At most 3*</td>
<td>0.202386</td>
<td>4.748742</td>
<td>3.841466</td>
<td>0.0293</td>
</tr>
</tbody>
</table>

Trace test indicates 4 cointegrating eqns at 0.05 level

### Vector Autoregression Results

<table>
<thead>
<tr>
<th>POV_INC1(-)</th>
<th>C</th>
<th>lnEXP</th>
<th>lnGDP</th>
<th>UNEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>(0.867357)</td>
<td>269.1108</td>
<td>2.818842</td>
<td>-25.48413</td>
<td>1.045245</td>
</tr>
<tr>
<td>(0.19400)</td>
<td>(127.979)</td>
<td>(4.70602)</td>
<td>(13.8168)</td>
<td>(0.61903)</td>
</tr>
<tr>
<td>(-3.45655)</td>
<td>[-2.23583]</td>
<td>[2.101277]</td>
<td>[0.59899]</td>
<td>[-1.84443]</td>
</tr>
<tr>
<td>[0.551621]</td>
<td>[2.651621]</td>
<td>[4.70602]</td>
<td>[13.8168]</td>
<td>[0.61903]</td>
</tr>
</tbody>
</table>

R² = 0.765, Akaike AC = 6.551621

Source: Author’s computation 2018

IV. Summary

Having examined the empirical relationship between the variables under review, we discovered that government expenditure is positively related to poverty indices; this does not conform with the a-priori
effects. It means that an increase in government expenditure in Nigeria for the period under review increases the poverty incidence of the country. However, the finding is at variance with the Keynesian's postulates that an increase in government spending or injection of money into the economy expands output which in turn reduces unemployment, hence poverty is reduced. In the case of Nigeria, it is obvious, even if output expands, it does not reduce poverty incidence in the country, this implies that the poor are not benefitting from the economy at large, especially from total government expenditure.

The coefficient of GDP (a proxy for economic growth), however conforms with the a-priori expectation, which depicts a negative relationship between economic growth and poverty incidence, growth in the GDP (all things being equal) brings about reduction in the poverty incidence of the country. This justifies the classical theory of welfare that wealth or income is a function of output. Finally, the unemployment coefficient fits in perfectly with the a-priori expectation, indicating a positive relationship between poverty and unemployment. This is also in line with the Keynesian school of thought, that unemployment is involuntary, and that the poor are not poor by choice, rather lack of jobs. The result is also similar to that of (Hassan, 2012) which indicates that an increase in unemployment will lead to increase in the poverty incidence.

V. Conclusion And Recommendation

This research explored the effect of economic growth on poverty reduction empirically, and the result shows that in Nigeria, economic growth is indeed a vital tool for poverty reduction, maintaining a negative relationship between the variables. The coefficient of unemployment also reveals a positive relationship between unemployment and poverty indices in Nigeria, and consequentially, it implies that if unemployment keeps increasing, poverty incidence will also increase. However, the dimension of government expenditure for the period under review indicates that there exists a positive relationship between poverty and government expenditure, which is "odd and awkward", This disparity, however, raises a lot of concerns for policymakers about the poor and the country at large. Based on these findings, the following recommendations are therefore suggested:

For poverty to be significantly reduced, or managed as the case may be, the government should include the poor more in its' spending, this can be achieved by spending more on labour-intensive sectors of the economy, which are mainly the agricultural and the manufacturing sectors. The Agricultural sector has a higher demand for human labour in developing countries, mostly the unskilled and semi-skilled, while the industry will focus more on the skilled labour, thereby increasing job creation which in turn increases the living standard of the people and reduce poverty.

Also, economic growth and government spending should be directed at the poor, mostly by providing the basic amenities, especially good infrastructures, financial benefits and aids to families with dependent children, and old people, also, medical aids should be available for the poor at a highly subsidized rate, if not free.

As a way of reducing the level of unemployment in the country, more enabling environment for private institutions and enterprise should be a priority. In other words, both the formal and the informal sectors should be enriched and enlarged, thereby affecting their growth and expanding the businesses; hence, more people will be employed, and economically engaged, and poverty level will reduce. This can be done through loans, grants, equity and financial aids to rescue collapsed or vulnerable businesses. However, sustainability is vital; therefore, it is not enough to give liquid support to these industries, close monitoring and fairness essential for accountability and high returns on the investment.

References