THE INTERPLAY OF UNEMPLOYMENT, POVERTY, AND ECONOMIC DEVELOPMENT IN NIGERIA

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Abstract: The study investigates the impact of unemployment and poverty on economic growth in Nigeria over the time period from 1980 - 2022. Unemployment rate (UNEMPR), and poverty rate (POVR) were used as independent variables while real gross domestic product (RGDP) was used as the dependent variable. Annual time series data on our targeted variables were sourced from the CBN annual statistical bulletin, World Bank development indicators. The Eview9 Statistical Software was employed to analyze the data. The Unit root test shows that UNEMPR, and RGDP are stationary after first difference I(1) while POVR was stationary at level I(0). The data were analyzed using the Autoregressive distributed lag (ARDL). The results of the ARDL estimates indicate that in both the long run and short run unemployment coefficient is negatively signed and statistically significant which implies that increase in unemployment rate would lead to a reduction in real gross domestic product (Economic growth) in Nigeria in both the short run and long run. But the coefficient of poverty is not statistically significant which implies that poverty does not meaningfully affect real gross domestic product in Nigeria. The study recommends amongst others that the government should fully engage those who are unemployed in productive activities which in turn would accelerate economic growth in Nigeria.

Keywords: Unemployment, Poverty, Economic Growth, Nigeria

INTRODUCTION

High population growth in Nigeria has been responsible for the high level of unemployment and this has been one of the major causes of poverty in urban settlements. The presence of high numbers of poorer and jobless individuals in the society generates insecurity (Frank, 2010). In most of the populated area has deficiency to acquire basic human need and social amenities. Most of the people are farmers which are categorized under seasonal unemployment. When the level of unemployed people is high without corresponding, human basic needs the rate of crime increases. In Nigeria there is still high rate of unemployment which translate to poverty and infrastructural deficit (Okolobah & Ismail, 2013). Several decades ago, in Nigeria, agriculture seemed to be the

major source of livelihood and as a result population growth was positively linked to production. It was believed that more people imply greater productivity and security since more workers or laborers working efficiently would be expected to immensely improve productivity and the overall output of the nation (Tartiyus, et al. 2015). When the societies and economies began to flourish, success was dependent upon a productive agricultural sector and attributed to large population. The economy inevitably expanded and the society reaped the financial benefits with more efficient labour. The high fertility rates allowed for increased laborers, enhanced productivity, facilitated economic activities and helped overcome the previously recorded exorbitant death rates as a result of combined effects of famine, disease, malnutrition, plague and war (Latimer & Kulkarni, 2008). The level of unemployment and poverty have continued to be core obstacle confronting the Nigerian economy (Adelowokan, et al. 2019). Irrespective of the potential increase in the size of the Nigerian economy, Nigeria is still facing some setback in economic sector such as militants, inflation, unemployment, poverty, insecurity problem and corruption. The 2020 budget shows that the federal government will remain focusing on major actions to control the disorder in the Country particularly in Northern part and to consolidate on the relative peace in the Niger-Delta postamnesty. In 2020, the effect of Covid19 turn the real GDP grow into negative accomplish by the declining global crude oil price and production cut challenges in an economy that is the still predominantly oil based. The alternative way to compensate the deficit growth from the oil sector is by creating alternative sources that will drive the economy forward. To achieve this, government must pay attention on fiscal and monetary policies that will drive the non-oil sectors of the economy. The sectors driving the economic growth were not sufficiently high job creating sectors. Furthermore, the oil industry is a capital-intensive virtual enclave that generates very little employment and the rate of poverty still increases among the citizens. Inability of economic growth to ensure availability of full employment and reduction of poverty in Nigeria has been generating growing concern among the scholars in the country (Aderemi et al., 2021). This is because the submission of inclusive growth theory is that the spillovers of economic growth must have a trickle-down effect on poverty through employment creation. Meanwhile, a relative substantial economic growth was recorded in Nigeria during the periods of 1990s and early 2000s. The average growth rate during these periods was 5.1% (NBS 2015). It is expected that economic growth experienced in Nigeria should be accompanied with sufficient job creation and poverty reduction in these periods, and beyond. However, the evidence from the available data in Nigeria proves that unemployment, especially among the youthful population and general poverty level are critical issues that need urgent intervention. For instance, over 47.40% of the Nigerian youth are unemployed (NBS, 2019), and the country hosts the highest number of poor people in the globe at the same time (World Poverty Clock, (Aderemi et al., 2020). Although several writers have tried to examine the impact of unemployment on economic growth in Nigeria, not many studies have attempted to investigate the impact of poverty and unemployment on economic growth in Nigeria, this is the gap this study seeks to fill.

Therefore, the objective of this study is to empirically investigate the impact of poverty and unemployment on the economic growth of Nigeria.

LITERATURE REVIEW

Conceptual Clarifications

The Concept of Economic Growth

Economic growth can be defined as an increase in value of goods and services produced in a country. Growth implies an increase in real GNP per unit of labour input. This refers to changes in labour productivity over time. Economic Growth is conventionally measured as the rate of increase in Gross Domestic Product. Growth is usually calculated in real terms. Growth improved the standard of living of the people in that particular country. Economic growth is measured by the Gross Domestic Product in Nigeria, economic growth is the rise in the gross

domestic product as the major quantitative measure of production for one year, whereas economic development includes both quantitative and qualitative improvements in a country's economic position (Ivic, 2015). Acemoglu and Verdier (2010), defined economic growth as a society's ability to enhance its human capital, physical capital, and technological capital over a certain period. Economic growth, as it is often and interchangeably used for sustainable development, is defined as economic development that feeds the hunger of the present generation without jeopardizing the yearnings of future generations.

The Concept of Poverty Rate

Poverty as a multi-facet phenomenon, has no clear cut or universal accepted definition. Poverty is a state where an individual is not able to cater adequately for his or her basic needs of food, clothing and shelter (Kpelai, 2013). According to Genyi (2007), agrees that: Poverty has various manifestations including lack of income and productive resources sufficient to ensure sustainable livelihoods, hunger and malnutrition, ill-health, limited or lack of access to education and other basic services, increase morbidity from illness, homelessness and inadequate housing, unsafe environment, social discrimination and exclusion. It is also characterized by a lack of participation in decision and in civil, social and cultural life.

Poverty could either be absolute or relative. According to Onoja (2007), he views absolute poverty as a situation where levels of income are not sufficient enough to provide the basic necessities of life, on the other hand, he opines that relative poverty is a situation where an individual or region appears to have more than others in absolute poverty, yet has less than others in terms of income, property and other resources.

The Concept of Unemployment

According to Aminu and Anono (2012), unemployment is the total number of people who are able, ready and willing to work, and do make themselves available for job at the prevailing wage rate but there is no work available for them. It thus means that unemployment is a situation when people are jobless in the country. By the same token, unemployment was defined by International Labour Organization (2018), as a state of joblessness that arises when individuals are without jobs and they have actively sought for work within a period of a month. The unemployment is calculated as a percentage by dividing the number of unemployed individuals by individuals currently in the labour force. Balami (2006), conceptualized unemployment as such a situation whereby an employee or employees are not voluntarily not working. What this portend is, employees ready to work cannot find any work to do. In the same vein, the classical school of thought asserted that unemployment is when the demand for labour is lower than the supply of labour. Unemployment, according to the classical school occurs when the real wages are set beyond the level of marketclearing, here, the number of people seeking for jobs are more than the available vacancies.

Theoretical Framework the Solow Growth Model

The Solow growth model is an economic growth model with the growth of total GDP is explained by increase in population, investment and technical progress. There is full employment in this model, with an aggregate production showing constant returns to scale. In analyzing the process of economic growth. Brian and Howard (2005), in their analysis, they combined the demand and supply sides of the economy in order to generate economic growth. They argued that economic growth could best be comprehended from the view of the neoclassical school of thought which is regarded as the supply side.

The Modified Phillips Curve (MPC)

The MPC was termed as successful because it was a phenomenon of macro-economic theory that became popular of macroeconomic theories and it influenced greatly on governmental policies of the 1960s. It was at that time it was regarded as a tool for economic policies, there is this believe by the government that they could achieve a very low unemployment since they are willing to put up with high inflationary trends and the attainment of a stable price by coping with a high Unemployment (Blanchard and Illing 2009). Nevertheless, in the 70s the inverse relation and unemployment nonetheless fell apart and majority o Organization of Economic Co-operation and Development member states observed stagflation which stands for higher inflation as well as higher unemployment. Despite the Phillips curve was unable to give a detailed explanation to stagflation, a new correlation between unemployment and inflation was discovered, namely the inverse relation of unemployment and changes in inflation.

Empirical Review

We review relevant studies that have evaluated the impact of poverty, unemployment, on economic growth in Nigeria using different data sets and time series.

Empirically, Downes (1998) used the error correction model and ordinary least square methods to examine the factors that are capable of reducing unemployment rate in Trinidad and Tobago within the periods, 1971-1996. The study found that real output and average earnings significantly influence changes in unemployment rate in both long- and short-run. It was further discovered that the coefficients output was negative while positive for real average earnings. Wright & Levin (2000) investigate the relationship between unemployment insurance replacement and the rate of unemployment. Using an annual panel data, the study found that unemployment insurance replacement rate is associated with higher unemployment. However, they find no significant relationship between unemployment insurance, related on employment and the real growth rate of domestic product.

Akeju and Olanupekun (2014) applied Error Correction Model (ECM) in the evaluation of the nexus between unemployment and economic growth in Nigeria between 1980 and 2012. The author asserted that there was a presence of a short and long-run relationship between Nigeria's economic growth and unemployment.

Alimi, et al. (2015) used impulse response, variance decomposition and Granger causality tests to investigate the macroeconomic implication of fiscal policy in Nigeria between 1970 and 2013. The findings revealed that fiscal policy tools have greatly impacted on macroeconomic performance in Nigeria. Ehinomen and Afolabi (2015), investigated the rising youth unemployment and its socioeconomic impacts for economic growth and development in Nigeria. Historical analysis techniques were used to analyze the study. It found that the rapid increase in youth unemployment in the country is due to their participation in criminal activities.

Consequently, Enejoh and Tsauni (2017), analyzed the impact of unemployment on economic growth in Nigeria from 1970 to 2016. The study used ARDL and Error Correction Mechanism (ECM) to test the short-run and long-run impact of youth unemployment and interest rate on economic growth. The result shows that there is a negative and significant impact of youth unemployment and interest rate on economic growth in Nigeria both in the short run and long run. The study also revealed that youth enrollment rate and education expenditure has a positive and significant impact on economic growth.

For instance, Ademola and Badiru (2016) used secondary data with the application of Ordinary Least Square (OLS) to assess the relationship between unemployment, inflation and economic growth in Nigeria from 1981 to 2014. There was a confirmation in the study that unemployment and inflation had a direct connection with economic growth in the country.

Maku & Alimi (2018) examine how fiscal policy tools influenced employment creation in Nigeria using annual data sets within the periods of 1980 to 2015. Tax revenue and government expenditure were employed measures of fiscal tools while the employment level at rural, urban and national were considered. The Engel Granger cointegration test results suggest that there exists a long-run relationship between fiscal policy instruments and employment level in Nigeria. The findings from ordinary least square method shows that employment generation is positively influenced by government spending and manufacturing output. This indicates that there is a reduction in unemployment rate due to an increase government spending and output from manufacturing industry in Nigeria. The coefficients of tax revenue and agricultural output were negative, suggesting that they do not influence employment level positively. Ayinla and Ogunmeru (2018), investigated how youth unemployment impacts Nigeria's economic development using descriptive and inferential statistics and also lines and tables to analyze data from 2010-to 2016. The study revealed that there is a significant relationship between youth unemployment and the GDP rate. Also, there is no significant connection between crime rate, labor efficiency, and youth unemployment.

Eshun (2019), found that there is a negative relationship between unemployment and economic growth. That is, for any increase in unemployment, there will be a decline in economic growth. This was discovered in a research carried out to assess unemployment and economic growth where Ordinary Least Square (OLS) was used to analyze data from 10 West African countries from 2004 to 2017. Katumo (2019), analyzed the relationship between youth unemployment and economic growth in Kenya using Ordinary Least Square (OLS) from 1991 to 2015. It was revealed that youth unemployment has a positive and significant impact on economic growth. Mukosa et al. (2020), evaluated the effect of unemployment on economic growth in Zambia. This research was analyzed using findings and facts from previous research carried out on youth unemployment and economic growth globally. This research found that there is a direct relationship between youth unemployment and economic growth.

In another study, Sherifat (2020) analyzed the effect of youth unemployment and its impact on economic growth in Nigeria making use of 600 respondents. The analysis of the data was done with the use of percentages, frequency counts and Pearson product moment correlation. As such, the result indicated that youth unemployment has a significant impact on economic growth in Nigeria. Also, it showed that the principal reason for the existence of youth unemployment in Nigeria are; rapid increase in population, lack of industries, lack of employable skills, corruption, increase in labor force. It also revealed that youth being used as political thugs, used for anti-social vices are also some reasons for youth unemployment in the country.

Similarly, Anyanwu et al. (2021) made use of Auto Regressive Distributed Lag (ARDL) and Error Correction Model (ECM) to analyze the implication of youth unemployment on economic growth in Nigeria from 1989-to 2020. It was revealed that there is a significant relationship between youth unemployment and economic growth in Nigeria. Conteh (2021), examined the relationship between unemployment and economic growth in Liberia

from 2001 to 2019 using Auto Regressive Distribution Lag (ARDL) to analyze the data. The research found that there is a long-run connection between unemployment and economic growth.

Fung and Nga (2022), made use of multivariate analysis of variance to analyze data from 19962019 to examine the effect of unemployment and inflation on economic growth in ASEAN countries. The result discovered that unemployment has a negatively significant effect economic growth while inflation has a positively significant impact on economic growth in ASEAN countries.

METHODOLOGY

Model Design

Research design is referred to as a blueprint for data collection prior to the study. It can be either of experimental or quasi-experimental types. Given the nature of this study, the study employed a quasi-experimental research design which is suitable for the social sciences. The complexities and dynamic nature of the relationships existing between the variables informed the use of quasi-experimental design. Such relationships are not subject to manipulation. Basically, the study adopted the quasi-experimental design which places emphasis on the systematic generation of the sample for the study of the relationships among the variables.

Model Specification

The mathematical form of the model is expressed as

RGDP = F (POVR, UNEMPR)

1

Where RGDP = Real gross domestic product

POVR = Poverty rate

UNEMPR = Unemployment rate

F = Functional notation

RGDP is the dependent variable

The linear regression model based on the above functional relation is expressed as:

$$\begin{aligned} RGDP &= \beta_0 + \beta_1 POVR + \beta_2 UNEMPR \\ \Delta RGDP_t &= \alpha_{0i} + \beta_{1i} \ POVR_{t-1} + \beta_{2i} \ UNEMPR_{t-1} + \beta_{3i} + \sum^{q}_{i=1} \alpha_1 \ \Delta RGDP_{t-1} + \sum^{p1}_{i=1} \alpha_2 \ \Delta POVR_{t-1} + \beta_{2i} \ DOVR_{t-1} + \beta_{2i} \ DOVR$$

$$\sum_{i=1}^{p_2} \alpha_3 \Delta UNEMPR_{t-1} + et$$

ECM

$$\Delta RGDP_{t} = \alpha_{0i} + \sum^{q}_{i=1} \alpha_{1i} \ \Delta RGDP_{t-1} + \sum^{p1}_{i=1} \ \alpha_{2i} \ \Delta POVR_{t-1} + \sum^{p2}_{i=1} \ \alpha_{3i} \ \Delta UNEMPR_{t-1} + \lambda ECT_{t-1} + et$$

$$B_1 \ge 0, \, \beta_2 \ge 0, \, \beta_3 \ge 0$$

Where β_0 is the regression constant or intercept, β_1,β_2,β_3 are the regression coefficients or parameters and U is the random variable. All other terms are as earlier defined. **Empirical Results and Discussions**

Table 1: Augmented Dickey Fuller and Philips Perron Unit Root Test for LITR Model

Variab le	ADF					PP				
ic .	Level		1 st Diff		I(.)	Level		1st Diff		I(.)
	Coeff.	5% CV	Coeff.	5% CV		Coeff.	5% CV	Coeff.	5% CV	
POVR	-5.203	-2.935			I(0)	-5.101	-2.935			I(0)
UNEM PR	-1.103	-2.935	-6.717	-2.936	I(1)	-1.236	-2.935	-6.688	-2.936	I(1)
RGDP	-2.231	-1.953	-2.413	-3.558	I(1)	-2.365	-3.530	-4.191	-3.530	I (1)

Table 1, shows the result of unit root test conducted with both Augmented Dicky Fuller Test (ADF) and Philips Perron Test (PP). To get a robust result for this empirical study, we adopted the outcome of Philip Perron statistics due to the robustness of the result in point of structural breaks. In line with the prepositions of Jenkins and Box (1970). Variable that are not stationary at levels would be made stationary after first difference. The following variables in the model were made stationary after first difference, UNEMPR, and RGDP while POVR was stationary at level.

Autoregressive Distributed Lag (ARDL) Model and Bounds Test for Cointegration The (ARDL) model approach of Pesaran, Shin and Smith (2001) is applied to investigate the relationship between poverty rate, unemployment rate and economic growth in Nigeria. The ARDL model is chosen because of the inbuilt cointegration procedure called the bounds test for cointegration or long-run relationship. The ARDL bounds test is more flexible when compared to other cointegration methods. The ARDL bounds test is used to test the null hypothesis that there is no Cointegration among the variables against the alternative hypothesis. If the calculated F-statistics is greater than the upper bound then the null hypothesis is rejected in favour of the alternative hypothesis and if it is below the lower bound then there is no co-integration.

Table 2: Bound Test for RGDP Model

ARDL Bounds Test

Date: 03/22/23 Time: 08:24

Sample: 1982 2022

Included observations: 41

Null Hypothesis: No long-run relationships exist

Test Statistic	Value	k
F-statistic	6.413471	2

Critical Value Bounds

Significance	I0 Bound	I1 Bound	
10%	4.19	5.06	
5%	4.19	5.85	
2.5%	5.79	6.59	
1%	6.34	7.52	

Source: Computed from E -view

The result presented in table 2, shows that the calculated F-statistics of 6.413471 is higher than the upper bound critical value of 5.85 at 5% significant level. Based on this result, it is concluded that a long run relationship exists among the variables of RGDP model. So, there is a long run cointegration amongst the variables in the model.

ARDL Cointegrating And Long Run Form

Dependent Variable: LOG(RGDP) Selected Model: ARDL(1, 0, 0) Date: 03/22/23 Time: 08:36

Sample: 1981 2022 Included observations: 41

	Cointegrati ng Form			
			t-Statistic	Prob.
Variable	Coefficient	Std. Error		
D(POVR)	0.001120	0.006619	0.169195	0.8666
D(UNEMPR)	-0.039469	0.014816	-2.663842	0.0115
D(@TREND())	0.014231	0.003577	3.978254	0.0003
CointEq(-1)	-0.112076	0.045855	-2.444170	0.0195

Cointeq = LOG(RGDP) - (0.0100 *POVR -0.3522*UNEMPR + 3.4972 + 0.1270*@TREND)

Source: Computed from E -view

Explanation of estimated short run for RGDP model

The result of the short – run dynamic regression of the model is presented in table 3. The regression result indicates that in the short run, POVR coefficient has positive relationship with RGDP but the relationship is not statistically significant. The coefficient of UNEMPR has a negative relationship with RGDP and it is also statistically significant. What this means is, increase in unemployment ratee would lead to decrease in real gross domestic product in Nigeria in the short run ceteris paribus. But increase in poverty rate in Nigeria does not meaningfully or significantly affect real gross domestic product (Economic growth) in the short run all things being equal.

The ECM turned up with a negative value of -0.112076 as the ECM coefficient which suggests 11% speed of adjustment. This means that approximately 11% of discrepancy in the previous year is adjusted for the current year.

Table 4: ARDL Long Run Regression for RGDP ModelLong Run Coefficients

=	Variable	Coefficient Std. Error t-Statistic	Prob.
	POVR	0.009992 0.058366 0.171195 0.865	50
	UNEMPR	-0.352160 0.213759 -1.647459 0.0182	

C	3.497198	4.306627	0.812050	0.4221
@TREND	0.126972	0.033446	3.796288	0.0005

Source: Computed from E -view

Explanation of the Estimated Long-run for the Model

The result of the long run regression estimates for RGDP model is presented in table 4. The regression estimates indicate that the coefficients of poverty like the short run is positively signed and also not statistically significant in the long run. But unemployment rate is negatively signed and as well statistically significant in the long run. What this portends is, in the long run increase in unemployment in Nigeria will reduce real gross domestic product (Economic growth) in the long run. Also, the result reveals that poverty coefficient was positively signed but not statistically significant in both the long run and short run. This implies that poverty rate does not meaningfully affect economic growth in Nigeria. This is in line with the findings of Aigbokhan (2000).

Conclusion/Recommendations

This paper empirically investigated the impact of poverty and unemployment on economic growth in Nigeria from the period 1980 – 2022. The study investigated the long run and short run relationship between the variables by using Autoregressive distributed lag (ARDL). The empirical results show that Real gross domestic product (RGDP) is influenced negatively by unemployment and also statistically significant in both the long run and short run. From the findings we observed that poverty coefficient is positively signed but not statistically significant in both the long run and short run. The study recommends as follows: that the government should fully engage those who are unemployed in productive activities which in turn would accelerate economic growth in Nigeria. Government should reappraise existing development policies and strategies and pay more attention to policies and programmes that would create productive jobs for the youths in order to reduce unemployment and poverty and pave way for economic growth in Nigeria. Also, there is a need for stable policies that would ensure equal distribution of income so that the poor would also benefit from the country's economic growth. Also, policy that stimulates economic growth should be encouraged in Nigeria.

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