The Effect of Economic Growth on Unemployment Reduction in Nigeria

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Abstract. The paper evaluated the effect of economic growth on unemployment reduction in Nigeria. Data were collected from CBN statistical bulletin and World Bank for twenty five (25) years. Ordinary least square regression was used to analyze the data after stationarizing it through Augumented Dicky Fuller (ADF) unit root test. The findings show that gross domestic product (GDP), gross national product (GNP) and per capita income (PCI) have no significant effect on unemployment reduction in Nigeria. Based on the findings, we therefore recommend that there should be creation of jobs for unemployed, some amount of money paid to the unemployed on monthly basis, free education to the disabled and poor people in Nigeria to better the life, wealthy people should invest in our country to avoid capital flight, all the abandoned manufacturing and productive industries should be fixed, investment in agriculture should be given priority to ensure mass employment etc.

Key words: Unemployment index, Gross domestic product, Gross national product, Per capita income

Introduction

There is a nexus between economic growth and unemployment reduction. When the economy grows, the rate of unemployment ought to reduce. Several efforts have been made by the government of Nigeria to reduce unemployment and the suffering in Nigerians through diverse programs as posited by Taiwo and Agwu (2016) which include the Farm Settlement Option introduced in 1960's, the National Accelerated Food Production project in 1972, Agricultural Development Project (ADP) in 1973, Operation Feed the Nation in 1976, the Rural Banking Scheme in 1977, Austerity Measures in 1985, the Green Revolution Programme in 1980, the River Basin Development Authority in 1986, Structural Adjustment Programme (SAP) in 1986 and the National Directorate of Employment (NDE) in 1986 aimed at the jobless adolescence, to empower and offer economic assistance.

In spite of all these programs, the rate of unemployment is still very high in Nigeria (NBS, 2020). This means then, that economic growth in Nigeria has not really addressed the problem of unemployment.

Economic growth is the increase in goods and services such as output, income etc. of a nation as a result of economic activities that take place over a period of time (Sanusi, 2011). It is measured by gross national product, per capital income, gross domestic product etc. These variables give signal to the government to know whether the economy is making progress or not. While the gross domestic product record the value of final goods and services produced in a country within a given period usually one year, gross national product is the money value of all the goods and services produced in a country in a year in addition to receipts from abroad made as factors payment, domestically owned factors of production by national abroad whereas per capita income gives income per head or income per capita ie average income per head of the population of a given country within a period of time (Oruwari, 2017).

Studies conducted by both national and international organizations and individuals only concentrated on the impact of unemployment on economic growth in Nigeria. For example,

Khan (2020) conducted research on unemployment and economic growth in Nigeria: A time-series analysis, Akutson, Messiah and Araf (2018) conducted research on the impact of unemployment on economic growth in Nigeria: An application of Autoregressive Distributed Lag (ARDL) Bound Testing etc. This means that unemployment is the predictor variable where as economic growth is dependent variable. Therefore the need to conduct a research on the effect economic growth on unemployment reduction constitutes a gap to be filled. This gap becomes the core problem of this study which the research is designed to fill.

Purpose of the Study

The general purpose of the study is to evaluate the effect of economic growth on unemployment reduction in Nigeria, the specific objectives are:

i. To determine the effect of gross domestic product on unemployment rate in Nigeria.
ii. To investigate the effect of gross national product on unemployment rate in Nigeria.
iii. To evaluate the effect of per capital income on unemployment rate in Nigeria.

Literature Review

We shall consider conceptual framework, theoretical framework and empirical review.

Conceptual Framework

The concepts used for the work are thoroughly examined for the purpose of clarity.

i. Economic Growth

This is the increase in income, output, goods and services in the economy as a result of the economic activities that take place in the economy within a period of time. Economic growth is measurable in quantitative terms. It could be in the growth of gross domestic product, gross national product, per capital income etc. The growth in the economic, all things being equal should translate it to the welfare of the citizen such as reduction in unemployment rate, poverty reduction etc.

ii. Gross Domestic Product (GDP)

This is the value of final goods and services produced in a country within a given period of time usually one year. The goods and services are valued at their market prices and these are added together to get the GDP.

iii. Gross National Product (GNP)

This is the money value of all the goods and services produced in a country in a year in addition to receipts from abroad made as factors payment.

iv. Per Capital Income (PCI)

Per capital income is the average income per head of a population of a given country within a period of time. It is given as

$$\text{PCI}=\frac{\text{Total National Income}}{\text{Total Population}}$$

A higher per capital income is suggestive of higher level of welfare while lower per capital income suggests a lower level of welfare.

v) Unemployment

This is the number of people who are employable and eyeing for a work yet cannot lay hands on a descent work. Moreover, it is those persons in the labor force or group of personalities whom are reachable for labor that do not have work. It is usually projected by the unemployment rate, which is separating the magnitude of unwaged people by the absolute figure of persons in the labor force multiply by 100.

vi) Unemployment reduction

This is the strategy put up by every responsible government to reduce the rate of unemployed labor force. In Nigeria, for example, the strategies adopted are: Farm Settlement

Option introduced in 1960's, the National Accelerated Food Production project in 1972, Agricultural Development Project (ADP) in 1973, Operation Feed the Nation in 1976, the Rural Banking Scheme in 1977, Austerity Measures in 1985, the Green Revolution Programme in 1980, the River Basin Development Authority in 1986, Structural Adjustment Programme (SAP) in 1986 and the National Directorate of Employment (NDE) in 1986.

Theoretical Framework

The researchers adopted three theories for the work.

i. Growth Theory

This theory was propounded by Adam Smith in 1776 in his book the wealth of the nation. He posited that increase in the wealth of the nation increases the growth of the economy. If the economy's wealth is dwindled or retarded, then the economy will have low growth rate. He therefore advocated that every nation should strive to increase their wealth so as to increase their growth.

ii. The Harrod Domar growth Model

Harrod (1939) came up with the theory of investment and also Domar (1946). They are of the view that investment leads to growth. If the economy invest or give themselves to investments, then, there will be expansion in the economy. According to them, investment will encourage aggregate demand and aggregate supply. Aggregate demand will help in economic expansion and aggregate supply will enhance capital formation and more production. All these will bring growth in the economy.

iii. Efficiency Wage Theory

Famous economist Alfred Marshall depicted the phrase "proficiency compensation" in his 1890 book "Principles of Economics" to demonstrate the comparable remuneration as per usefulness of task. Advocates of this fundamental notion contend that companies ought to pay their laborers contrastingly on their proficiency. At the end of the day, a more productive worker must have a better pay than a fewer effective expert. The Marshallian notion advanced the efficiency wage theory. Notwithstanding, there is a bottleneck for disbursing astronomical salaries above the harmony threshold. A well-paid boss will typically influence in extra representatives.

iv. Keynesian Theory of Unemployment

It offers a selective hypothesis of unemployment. "John Maynard Keynes and followers of the Keynesian way of thinking came up in 1936 and clarified that joblessness happens when there isn't sufficient total interest in the economy. All things considered, in the event that requests for merchandise and ventures decline, at that point there is a lesser requirement for creation and subsequently, lesser requirements for laborers. Observe that Keynesian economics matters additionally contend that market economies or entrepreneur monetary frameworks normally go through a win and-fail cycle. Low total interest and joblessness portray the bust period of the economy" (Keynes, 1936).

Methodology

According to Ihenetu (2008), "research design is a blue print, framework for collecting and analyzing data". The researcher employed expost facto design. The fact that the data were original from CBN statistical bulletin and World Bank and adopted for the study necessitated the choice of the design. The data used for this work were purely secondary data. The data collected were gross domestic product, gross national product and per capita income for independent variables whereas unemployment rate was used as the dependent variable. The sample size is twenty five years (1995-2019). The researchers applied unit root and ordinary least square multiple regression to analyzed the data. The model specification is given as:

The mathematical model is given as:

UEPR = f(GDP, GNP, PCI)

This model can be transmodified to econometric model as:

$UEPR = \alpha + \beta_1 GDP + \beta_2 GNP + \beta_3 PCI + \mu$----------1

$UEPR = \alpha + \beta 1 LogGDP + \beta_2 LogGNP + \beta_3 LogPCI + \mu$----------2

Where UEPR = Unemployment rate

GDP = Gross Domestic Product

GNP = Gross National Product

PCI = Per capita Income

Log = Logarithm

β_1 β_2 β_3 = Coefficient of independent variables

α = Constant intercept

Data Presentation

The data used for the work are presented below:

Table 1. Unemployment rate (UEPR) Gross Domestic Product (GDP), Gross National Product (GNP) and Per Capita Income (PCI)

Years	GDP (Naira)	GNP (USD)	PCI (USD)	EXR	GNP (Naira)	PCI (Naira)	UEPR (%)
1995	2,895,201.00	33.56	3356	84.58	2838.337	283,833.70	1.9
1996	3,779,133.00	42.67	4267	79.6	3396.532	339,653.20	2.8
1997	4,111,640.00	49.68	4968	74.63	3707.37	370,737.00	3.4
1998	4,588,989.00	50.93	5093	84.37	4296.85715	429,685.71	3.5
1999	5,307,361.00	54.39	5439	92.53	5032.61832	503,261.83	17.5
2000	6,897,482.00	57.03	5703	109.55	6247.6365	624,763.65	18.1
2001	8,134,141.00	66.78	6678	113.45	7576.191	757,619.10	13.7
2002	11,332,252.00	81.65	8165	126.9	10361.385	1,036,138.50	12.2
2003	13,301,558.00	93.75	9375	137	12843.75	1,284,375.00	14.8
2004	17,321,295.00	118.34	11834	132.85	15721.469	1,572,146.90	11.8
2005	22,269,977.00	143.54	14354	129	18516.66	1,851,666.00	11.9
2006	28,662,468.00	192.5	19250	127	24447.5	2,444,750.00	12.3
2007	32,995,384.00	235.63	23563	116.8	27521.584	2,752,158.40	12.7
2008	39,157,884.00	295.08	29508	131.25	38729.25	3,872,925.00	14.7
2009	44,285,560.00	314.42	31442	148.1	46565.602	4,656,560.20	19.7
2010	54,612,264.00	338.51	33851	148.81	50374.5753	5,037,457.53	5.1
2011	62,980,397.00	354.2	35420	156.7	55503.14	5,550,314.00	6
2012	71,713,935.00	408.56	147081.6	155.76	63635.9437	22,908,939.74	10.6
2013	80,092,563.00	461.62	166183.2	155.74	71891.5448	25,880,956.11	10
2014	89,043,615.00	517.95	186462	168	87015.6	31,325,616.00	7.8
2015	94,144,960.00	511.13	184006.8	197	100692.61	36,249,339.60	10.44
2016	101,489,492.00	452.68	162964.8	305	138067.4	49,704,264.00	14.23
2017	113,711,634.00	398.88	143596.8	306	122057.28	43,940,620.80	20.42
2018	127,736,827.00	384.74	138506.4	307	118115.18	42,521,464.80	23.1
2019	144,210,492.00	407.59	146732.4	307	125130.13	45,046,846.80	27.1

Source: CBN Statistical bulletin and World Bank

In order to ensure the same unit of measurement, the researchers first converted gross national product (GNP) and per capita income (PCI) using the appropriate rate as seen above and thereafter logged GDP, GNP and PCI.

Data Analysis

Table 2. Stationarity (Unit Root) Test Results

Variables	Level	1st difference	Order of Integration	Remark
DUEPR	-2.026934	-4.769272	I(1)	Stationary
DGDP	-1.176178	-3.984394	I(1)	Stationary
DGNP	0.213674	- 4.285035	I(1)	Stationary
DPCI	-2.252541	-4.859715	I(1)	Stationary

Note: Significant at 5% level, ADF test > Critical Value, then the variable is stationary
Source: Extracts from E-Views 9 Output

The table above presents the unit root stationarity test results with the outcomes for the utilized information of maximum of lags 4 with trend and intercept. The summary of the results are that, the ADF test statistic are higher when compared with all their critical values at 5%. As such, they are deemed fit for utilization in subsequent estimations.

Table 3. Ordinary Least Square Multiple Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.059432	0.343277	5.999329	0.0000
DGDP	1.370249	2.149052	0.637606	0.5306
DGNP	0.211366	1.670088	0.126560	0.9005
DPCI	0.066713	0.580767	0.114871	0.9096
R-squared	0.032240	Mean dependent var		2.319173
Adjusted R-squared	-0.106011	S.D. dependent var		0.691353
S.E. of regression	0.727075	Akaike info criterion		2.346073
Sum squared resid	11.10141	Schwarz criterion		2.541093
Log likelihood	-25.32591	Hannan-Quinn criter.		2.400163
F-statistic	0.233199	Durbin-Watson stat		0.562367
Prob(F-statistic)	0.872211			

Source: E-Views version 9

From Table 3, GDP, GNP, PCI are the independent variables where as the UEPR is the dependent variable. The result of the analysis showed that GDP, GNP and PCI had no significant effect on UEPR at 5 percent level of significance during the period of the study. The r^2 0.03 implies that variation in all the explanatory variables account for 3% of the variation in unemployment rate. F – Statistic measures the overall significance of the model. The F-statistic is 0.2332 and the probability of F-statistic is 0.872211 is far more than 0.05 power of test. This means that economic growth has not yet been translated to unemployment reduction in Nigeria. Durbin Watson 0.562367 suggested the presence of serial correlation. However, the existence of such serial correlation was subjected to further confirmatory test visually displayed in the form of residual plots and the result revealed that the residuals were uncorrelated with past inputs. Hence, there was no fear of relevant statistics been inflated or probability of deriving incorrect estimation.

Conclusion and Recommendations

From the findings, it is very clear that economic growth has no significant effect on unemployment reduction. This supports the report of Nigeria Bureau of Statistics and World Bank report that the rate of unemployment in Nigeria is very high. Therefore, we recommend that there should be creation of jobs for unemployed, some amount of money paid to the unemployed on monthly basis, free education to the disabled and poor people in Nigeria to better the life, wealthy people should invest in our country to avoid capital flight, all the abandon manufacturing and productive industries should be fixed, investment in agriculture should be given priority to ensure mass employment etc.

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