Economic Growth, Inequality and Poverty in Nigeria, 1980-2016

Saheed Aliu, ALADEJANA[1]
Department of Economics,
College of Management & Social Sciences,
Samuel Adegboyega University, Ogwa, Edo State, Nigeria.
[1]Email: aladejana26@gmail.com

John Adejare, ALABI[2]
Marketing Department,
Faculty of Communication & Management Studies,
The Ibarapa Polytechnic, Eruwa, Oyo State.
[2]Email:jarealabi2015@gmail.com

Saudat Adewumi, BOLAJI[3]
Accountancy Department,
Faculty of Communication & Management Studies,
The Ibarapa Polytechnic, Eruwa, Oyo State.
[3]Email:sadewumi1804@gmail.com

Abstract

The link between economic growth, inequality and poverty has been widely debated in the literature. This has affected the economy of developing countries in which Nigeria inclusive. This study examined the relationship between economic growth, inequality and poverty in Nigeria. The study used time series data from World Development Bank and Central Bank of Nigeria Statistical Bulletin and National Bureau of Statistics (NBS) from 1980 to 2016. The study employed Fully Modify Ordinary Least Square (FMOL) methods, unit root test and granger causality test .The unit root test showed that the variables were stationary in the short run and co-integration test confirmed a long run relationship between the variables. The Granger causality result showed that only poverty rate (POV) granger cause gini coefficient (GINI). Poverty rate (POV) and trade openness (OPEN) established uni-directional relationship in the estimated model in Nigeria. The R-squared (R^2) showed that forty-one percent (41%) changes in variations in Real Gross Domestic Product were explained by the predictor variables in the model. The results showed a positive relationship between trade openness and the real gross domestic product in Nigeria. This implied that a one percent (1%) increase in trade openness bring about 17% rise in real gross domestic product in Nigeria. The study concluded that inequality increased poverty level and at the same time increased economic growth during the study period. Also poverty had positive effect on income inequality. Therefore, policies that will reduce inequality will also reduce poverty and vice versa. It is therefore recommended that for the economy to experience growth, inequality must be comprehensively addressed as this will subsequently reduce poverty. Moreover, more emphasis on basic education will help to address the twin monster of inequality and poverty.

Keywords: Economic growth, inequality, poverty rate in Nigeria

1.0   Introduction

There seems to be a relationship between economic growth, inequality and poverty in literatures. All things being equal, economic growth is expected to limit inequality and subsequently cause reduction in poverty. This relationship was explained by Bourquignon (2003), that poverty reduction is an important development objective that can only be achieved through appropriate policies that enhance economic growth and income distribution. In other words, poverty reduction depends largely on economic growth and income distribution.

The fight against poverty has been a major issue in most less developed countries among which Nigeria is one. In Nigeria, the income approach in fighting corruption was employed in the sixties and seventies. Hence emphasis was laid on improving and increasing the growth of Gross Domestic Product (GDP) with the belief that the gains from economic growth would trickle down to the poor through social policies and provision of social services and amenities.

Unfortunately, the high GDP did not reduce the space of unemployment and poverty in the country neither has benefits, trickled down to the masses. Some year ago, in the year 2015, the then coordinating Minister for Finance announced to the whole world that Nigeria has the largest economy in Africa given that her GDP is the largest of all African countries. The questions then are: Has the benefits of high GDP really trickled down to the masses? What is the relationship between high economic growth (indexed by high GDP) and poverty and income inequality? Is there any causal relationship between economic growth, inequality and poverty?

As the Federal Office of Statistics (2010) puts it, the existence of income inequality in Nigeria is deep, severe, and widespread. For example, in 2010, the distribution of aggregate household-income revealed that about 40 per cent of the populations are low-income earners; only 15.7 percent of aggregate households are average income-earners while 20 percent of other households received 42.9 percent of total household-income. In support, CBN (2010) reported that almost 5 percent of Nigerian families received 16 percent of aggregate household- income, whereas the lowest 20 percent received only 4.7 percent of aggregate household-income over the years. Additionally, World Development Indicators (2013) and Central Bank of Nigeria (2013) claimed that the level of income inequality astronomically rose from 15.7% in 2010 to 73%, 73% and 75% in 2011, 2012 and 2013, respectively. This implies that less than 25% of Nigerians are actually living above poverty-indicators in the economy.

2.0   Statement of the Problem

The relationship between economic growth, inequality and poverty has often generated intense debate among scholars. Some scholars argued that income inequality enhances growth while others believed that it depresses growth thereby increasing the poverty level of an economy. Hence, it can be said that the relationship is still inconclusive and hence the need for further investigation. Apart from this, this study differs from earlier studies in that it considers the three variables altogether. Most studies considered either the relationship between economic growth and inequality or economic growth and poverty. Examples include; Fosu (2009), Nahum (2005), Davis (2007), Castello Clement (2010), Barro (2008), Cingano (2014) and Knowles (2005). Most existing studies were either on OECD countries, MENA countries or certain developing countries lumped together. Also, evidence in the literature show that most of the studies on economic growth,

inequality, and poverty are conducted in developed and emerging economies like Australia, Philippine, Pakistan, Trinidad and Tobago, France, Romania etc. However, to Nigeria, to the best of the knowledge, there has not been any significant study on the relationship between economic growth, inequality and poverty nexus. Some studies Ogwumike and Afangidel (2008); Oyekale, Adeoti, and Ogunnupe (2008); Oguntuase, (2007) and Awoyemi, (2005) examined the relationship between income-inequality and poverty. Findings from cross sessional studies may not be applicable to individual countries especially those outside the sample countries. Hence, generalization from such studies may not be economically reliable. As at the time of putting this study together, there has been no awareness of any country- specific study on Economic Growth, Inequality and Poverty relating to the Nigerian economy. This study therefore finds its relevance in bridging this gap in literature. The policy implication of the study is expected to be of relevance to the administration in tackling the problem of poverty which has been persistently endemic in the country.

Hence, this study is conceived to determine the relationship between economic growth, income inequality and poverty and also determine the direction of causality between the identified variables in Nigeria. Moreover, it is an attempt to explain the divergent views positive and negative on the relationships between relationship between economic growth, inequality and poverty as they may relate to Nigeria.

3.0   Theoretical Links Between Poverty, Inequality and Growth

The work of Kuznets (1955) is perhaps the starting point for examining the links between poverty, inequality and growth. Kuznets hypothesizes that growth and inequality are related in an inverted U-shaped curve. In the early stages of economic development, inequality increase as a result of the shift of people from the large, relatively poor and egalitarian agricultural sector to the small, industrial sector that is richer but relatively unequal. In the latter stages, however, as a bulk of the population shifts to the urban sector, there is an increase in the relative wages of the poorer workers in both urban and rural sectors, and various policy measures are also implemented to reduce intra- and intersectoral inequality. Therefore, overall income inequality in the economy decreases in the latter stages of development. One implication of the Kuznets hypothesis is that if, in early stages, economic growth leads to more inequality, then poverty might take many years to decrease in the developing world.

In recent years, a number of theoretical studies has tried to examine the links between inequality and growth. Rather than focusing on the Kuznets hypothesis, the reinvigated interest in the endogenous growth theory has provided substantial research into the exploration of the impact of inequality on growth. Although almost all the studies undertaken on the topic show a negative effect of inequality on growth, the channels through which this effect is transmitted differ in accordance with the model used. There are six main families of models which explore the links between growth and inequality: the political economy model (PE), the capital market imperfection model (CM), the integrated model (INT), the socio-political instability model (PI), the fertility/education issue model (FE), and the social comparisons model (SC). We now turn to briefly review these models.

PE model (Alesina and Rodrik, 1994; Persson and Tabellini, 1994; Bertola, 1993; Perotti, 1992): This model tries to build a bridge between theories of endogenous growth and theories of endogenous political economy. In democratic societies, the level of taxation is decided by the median voter. Taxation is assumed to be proportional to income, and public expenditure progressive as tax revenues are redistributed lump-sum to everyone. Hence, the benefit received by the poor is greater than the benefits received by the rich. Thus, the poor would prefer a high level of taxation-redistribution. Since in unequal societies the income of the median voter is slower than the mean income, majority rule would dictate a high level of redistribution which in turn discourages investment by depressing its net return and lowers growth. The negative impact of inequality would be attenuated by the degree of wealth bias of the system against the poor. The more a society moves away from the democratic archetype of "one man, one vote", the less it is possible to reduce the level of inequality through redistribution.

CM model (Chiou, 1998; Aghion and Bolton, 1997; Galor and Zeira, 1993; and Saint-Paul and Verdier, 1993): This model is based on the role played by imperfections in the capital markets. Specifically, in societies where agents do not have free access to borrowing, inequality implies that a relatively large share of the population is below the threshold cost of education. Therefore, investment in capital human capital is low, and if growth is enhanced by investment in human capital, growth is low too. Redistribution increases total output and growth because it allows the poor to invest in human capital. If capital markets tend to improve as an economy develops, then the effects related to capital-market imperfections are more important in poor economies than in rich ones. Therefore, the predicted effects of inequality on economic growth would be larger in magnitude for poor economies than for rich ones. It is also noted that the credit market imperfection arguments are actually better suited to explain the relationship between poverty rate and economic growth. While higher inequality does not always imply that a larger fraction of the population is too poor to gain access to credit, a higher poverty rate unambiguously means that more people are credit-constrained. For example, inequality in an economy could be high even though all the people in the economy are relatively well off. Therefore, we should expect a negative relationship between poverty rate and economic growth.

INT model (Benabou, 1996): This model provides an integrated framework in which the impact of redistribution on growth is not necessarily linear. There are two opposite effects. Redistribution is good if public expenditure goes to finance education in a world with imperfect capital markets, and bad if it only transfers income from the rich to the poor because it depresses the net return to investment of the rich. Therefore, growth is invertedU shaped with respect to redistribution and distribution is U-shaped with respect to inequality.

PI model (Alesina *et al*. 1996; Benhabib and Rustichini, 1996; Grossman and Kim, 1996; Fay, 1993): This model emphasises the consequence of inequality on political instability and social unrest. According to the PI model, inequality is an important determinant of socio-political instability and this has negative effects on growth through lower expected returns to investment. Specifically, inequality exacerbates social conflict which in turn makes property rights less secure and reduces growth. Moreover, the participation of the poor in crime and other anti-social actions

represents a direct waste of resources because the time and energy of the criminals are not devoted to productive efforts. Defensive efforts by potential victims represent a further loss of resources.

FE model (Perotti, 1996): According to the FE model, inequality has a negative effect on economic growth through the distortion of the households' decisions on education and fertility. Parents have to optimise the use of the household's resources, alternatively through an improvement in quality (education) or in quantity (fertility) of their offspring. Since education has a cost equal to the income foregone while at school, poor households do not invest in human capital but in the quantity of children. However, growth is only enhanced by investment in human capital, therefore, ceteris paribus, a society in which there is high inequality presents a relatively large number of poor households which invest in quantity rather than education. The high fertility rate of this society leads to low growth.

SC model (Knell, 1998): This model is built on the Benabou model (1996), in which individuals make social comparisons. The model is based on the assumption that maximisation of individual utility does not depend solely on own consumption but also on the average consumption of some reference group. In an unequal society, poor households are tempted to conform to the norms and to fulfil social needs and expectations by involving in higher consumption activities and by lowering investment in human capital in order to reduce the gap with rich households. These activities maximise present welfare but go to the detriment of future welfare and growth.

As the above discussion shows, inequality and poverty can affect growth through various mechanisms that often work in opposite directions. It is not possible to predict which mechanisms are dominant by using theory alone. Empirical investigation is therefore the key to understanding the relationship between inequality, poverty and growth.

4.0   Method of Analysis

This study Applied Fully Modified Ordinary Least Square (FM-OLS) analysis in order to investigate the relationship between economic growth, inequality and poverty in Nigeria. This will enable us to induce flexibility by contributing the dynamics significance of the variables on economic growth in a unified manner for the period of the study. The method used in this study is a technique for fitting the sum when the squared vertical deviation of point from the line, that is the overall discrepancy between the variables in the model. This means that the sum of all the residual would be a measure of all overall discrepancy of the point from the line. Applying the use of FM-OLS is very significant such that the outcome of the residual u_i is normally distributed in the model when the explanations for the behavior of the variables are offered. The FM-OLS is also to establish the coefficients or the type of relationship that exist and the degree of the relationship in the model in Nigeria for the period 1986-2016.

Furthermore, there is a need for pre-test (stationary and co-integrated) in the model to examine the causal relationship between the variables. The stationary test and co-integration test is used to show the short and long run equilibrium relationship respectively; between the variables using Augmented Dickey Fully (ADF) test and Johansen co-integration test. The short and long run dynamic in the co-integration series is require in the model.

This study adopted Hoi Quoc (2008) model in Vietnam, According to him, growth is determined by inequality and poverty. This is mathematically written as:

GROWTH= f (INQEQ, POV) -- (i)

The model adopted for the study used two (2) variables as independent variables on growth but to suit our topic and also to add to empirical literature for further research. The following variable is added to the model and this mathematically written as:

GROWTH= f (INQEQ, POV, OPEN, INF) -- (i)

RGDP= real gross domestic product

INQEQ=Inequality

POV=poverty

OPEN=trade openness

INF=inflation

Econometrically, equation (ii) is written as:

$InRGDP_t = \alpha_0 + \alpha_1 InINQEQ_t + \alpha_2 InPOV_t + \alpha_3 InOPEN_t + \alpha_4 InINF_t + U_1$---------------------- (iii)

Equation (iii) shall be estimated in the course of this study.

Where: $\alpha_{1\,to}\,\alpha_4$=the parameters to be estimated and u = the error term.

Follow: $\alpha_1, \alpha_2, \alpha_3,$ and$\alpha_4 >_0$

5.0   Empirical Results

The pre-diagnostic test involves the test to be carried out before carrying out the technique to be used. It can also be called the Battery Test and it includes the descriptive statistics, unit root test and the co-integration test.

Table 1: DESCRIPTIVE STATISTICS OF VARIABLES

	GINI	INF	OPENN	POV	RGDP
Mean	44.08486	19.34209	32.83855	53.57459	21791.69
Median	43.00000	12.21778	34.45783	53.60000	4588.990
Maximum	56.00000	72.83550	53.27796	66.90000	101489.5
Minimum	36.20000	5.382224	9.135846	40.20000	130.5873
Std.Dev	5.340113	17.51488	12.97365	6.825215	31066.12
Skewness	0.625775	1.707429	-0.407755	-0.047946	1.366158
Kurtosis	2.541834	4.680827	2.114796	2.505535	3.496419
Jarque-Bera	2.738451	22.33325	2.233322	0.391107	11.88930
Probability	0.254304	0.000014	0.327371	0.822379	0.002620
Sum	1631.140	715.6573	1215.026	1982.260	806292.4
Sum Sq. Dev.	1026.605	11043.75	6059.363	1677.008	3.47E+10
Observations	37	37	37	37	37

Source: Researcher's Computation, (2019).

Descriptive statistics for this entire variable can be found in Table 1. The mean value for gini variable is 44.08486 with standard deviation of 5.340113. Whereas, the trade openness, poverty rate, inflation and rgdp have the mean of 32.83855, 53.57459, 19.34209, and 21791.69 the standard deviation of 12.97365, 6.825215, 17.51488 and 31066.12 respectively.

Test for Stationarity of the Model

Appropriate test has been developed by Augmented Dickey and Fuller (ADF) to consider whether a time-series has a unit root.

Table 2: Results of Unit Root Test at Level using ADF

Variables	ADF Test		Level	1st difference	Remark
	Level	1st			
GINI	(2.446581)	(3.041103)	1(0)*	1(1)**	S
POV	(2.045681)	(6.357436)	1(0)*	1(1)**	S
OPEN	(2.485651)	(7.739604)	1(0)*	1(1)**	S
RGDP	(3.049188)	(0.474307)	1(0)*	1(1)**	S
INF	(2.905916)	(5.580768)	1(0)*	1(1)**	S
@ level 0.05		2.945842			
@ 1st difference @ 0.05:		2.948404			

Source: Researcher's Computation, 2019

1(0) = level

1(1) = 1st difference

* = not stationary

**= not stationary

As shown in the Table 2, the gini, poverty, trade openness, real economic growth (RGDP) and inflation rate data series were not stationary at level i.e. 1(0)* at 5% critical value greater than ADF test (t-statistic) in the model for the period of 1980 to 2016 where all the variables (i.e., gini, poverty, trade openness, real economic growth (RGDP) and inflation rate) data series were found to be stationary at 1st difference i.e. 1(1)** at 5% critical value greater than ADF test(t-statistic) in the model. Thus, this implied that the unit root test shows that the variables were stationary within the model for the period of study.

Table 3: Empirical Results of Unrestricted Co-integration Rank Test (Trace)

Trace Statistic	0.05 Critical value	Hypothesized No Of CE(S)	Prob **
73.46332	69.81889	None *	0.00248
42.07375	47.85613	At most 1*	0.1567
20.23666	29.79707	At most 2*	0.4069
6.004926	15.49471	At most 3*	0.6950
0.657414	3.841466	At most 4*	0.4175
Max-Eigen Statistic	**0.05 Critical Value**	**Hypothesized No of CE(S)**	**Prob ****
31.38957	33.87687	None *	0.0963
21.83709	27.58434	At most 1*	0.2289
14.23173	21.13162	At most 2*	0.3463
5.347511	14.26460	At most 3*	0.6975

| 0.657414 | 3.841466 | At most 4* | 0.4175 |

Source: Researcher's Computation, 2019

Table 3 revealed that at least one series were co-integrated in the model at 5% significance level. The findings confirmed that there existed long-run equilibrium relationship between the variables in Nigeria.

Table 4: The Empirical Results of Pair-Wise Granger Causality Test

Null Hypothesis:	Lag	Obs	F-Statistic	Prob.	Granger Causality
INF does not Granger Cause GINI GINI does not Granger Cause INF	2	35	0.39404 0.08203	0.6778 0.9215	No Causality
OPEN does not Granger Cause GINI GINI does not Granger Cause OPEN	2	35	0.38724 1.06721	0.6823 0.3567	No Causality
POV does not Granger Cause GINI GINI does not Granger Cause POV	2	35	2.83149 17.8514	0.0747 8.E-06	POV ⟶ GINI Uni-directional Causality
RGDP does not Granger Cause GINI GINI does not Granger Cause RGDP	2	35	0.16900 0.42083	0.8453 0.6603	No Causality
OPEN does not Granger Cause INF INF does not Granger Cause OPEN	2	35	0.30728 0.92891	0.7377 0.4060	No Causality
POV does not Granger Cause INF INF does not Granger Couse POV	2	35	0.04405 0.64164	0.9570 0.5335	No Causality
RGDP does not Granger Cause INF INF does not Granger Cause RGDP	2	35	1.19568 0.30299	0.3165 0.7408	No Causality
POV does not Granger Cause OPEN OPEN does not Granger Cause POV	2	35	5.38429 1.72316	0.0100 0.1957	POV ⟶ OPEN Uni-directional Causality
RGDP does not Granger Cause OPEN OPEN does not Granger Cause RGDP	2	35	1.70784 1.32213	0.1984 0.2817	No Causality
RGDP does not Grander Cause POV	2	35	0.72762 1.53564	0.4914 0.2318	No Causality

Source: Researcher's Computation, 2019

Pair-wise Granger causality test helps to examine the direction of causality between two variables of the model. The Pair-wise Granger causality test results were reported in Table 4.between the variables in the model. The result showed that only poverty rate (POV) and gini coefficient (GINI) and poverty rate (POV) and trade openness (OPEN) established uni-directional relationship in the estimated model in Nigeria and it is statistically significant in the model. For example, poverty rate granger causes gini coefficient whereas poverty rate granger cause trade openness in the estimated model for the period of study. Thus, the findings show that uni-directional relationship exists between the variables in the model in Nigeria.

Table 5: The Empirical Results of FM-OLS

Dependent Variable: LNRRGDP			
Variable	Coefficient	Std. Error	Prob.
OPEN	0.017500	0.047689	0.7161
GINI	-0.281526	0.181552	0.1311
INF	-0.054340	0.023775	0.0293**
POV	0.431480	0.171177	0.0171*
C	-1.911902	4.076631	0.6424
R-Square 0.411368			
Durbin Watson stat			

Source: Researcher's Computation2019

The regression results for real gross domestic product model showed coefficients of all the explanatory variables are positively signed except gini coefficient (GINI) and inflation rates (INF) were all statistically significant at 5% level. The regression result revealed positive relationship between trade openness and real gross domestic product in Nigeria. In term of the relationship between gini coefficient (GINI) and real gross domestic product (RGDP), inflation rate (INF) and real gross domestic product (RGDP); the study revealed that an inverse relationship in the model. The result shows that gini coefficient (GINI) has a negative sign (-0.281526) in the model and not significant. The findings show that a unit percent increase in gini coefficient brings about 1 percent increase in the model. Again, a positive and significant relationship exists between poverty rate and real gross domestic product in the model in Nigeria for the period 1980-2016. The empirical results show that a unit percent increase in real gross domestic product can reduce 0.431 percent in poverty rate in Nigeria. This result showed line with research conducted by Astrini (2013).

 Also, *ceteris paribus,* the results show a robust negative relationship between inflation rate and real gross domestic product (RGDP) in the model and it statistically significant. The results prove that a unit percent increase in inflation rate brings about 1 percent decrease in real gross domestic product in Nigeria. Moreover, a positive but not significant relationship exists between trade openness (OPEN) and real gross domestic product in the model. The coefficient of trade openness is positive (0.017500) on real gross domestic product in Nigeria and this implies that a unit percent increase in trade openness brings about 17 percent increase in real gross domestic product in the estimated model within the study period. However, if all the explanatory variables excluded from the estimated model, the value of the constant value is revealed at -1.911902 negative. This means that the intercept value ($\propto_0$) is still negative in the model over the estimated years 1980 to 2016.

6.0   Tests for the Goodness of the Model (Coefficient of Determination (R^2)

The values of R-square (R^2), are normal for the model, for example, the R square for real gross domestic product model was 4 1%, showing that the variables (trade openness, gini coefficient, inflation rate and poverty rate) captured in the model explained 41 percent of the systemic variation in real gross domestic product (RGDP) in the economy.

7.0   Post- Diagnostic Test

Table 6: Wald Test

Test Statistic	Value	Df	Probability
F- Statistic	6.160	(4, 31)	0.000
Chi- Square	24.640	4	0.000

Source: Researcher's computation (2019)

The Wald Test is introduced to check if the independent variables jointly influenced the dependent variable. The F Statistic is 6.160 and its probability value is 0.000; which showed that the probability value (0.000) is less than the 0.005 level of significance. It can be concluded that independent variables jointly influenced the dependent variable.

Coefficient Variance Decomposition

Table 7:Coefficient Variance Decomposition

Eigenvalues	16.62444	0.057011	0.001976	0.000567	2.64E-05
Condition	1.59E-06	0.000463	0.013369	0.046604	1.000000

	Associated Eigenvalue				
Variable	1	2	3	4	5
OPEN	-0.005232	0.069588	-0.872700	-0.242349	-0.418081
GINI	0.006034	0.750376	0.350078	-0.090879	-0.553250
INF	0.000411	-0.002743	-0.144900	0.956669	-0.252550
POV	0.016382	-0.657299	0.307746	-0.133387	-0.674678
C	-0.999834	-0.006606	0.011663	-0.001073	-0.012309

The coefficient variation decomposition is used to test for multicollinearity among the variables. The Column One of the Associated Eigenvalue showed that all the values are below 0.5. With result, it is concluded the variances are not perfect linearly correlated; hence, no problem of multicollinearity among the variables.
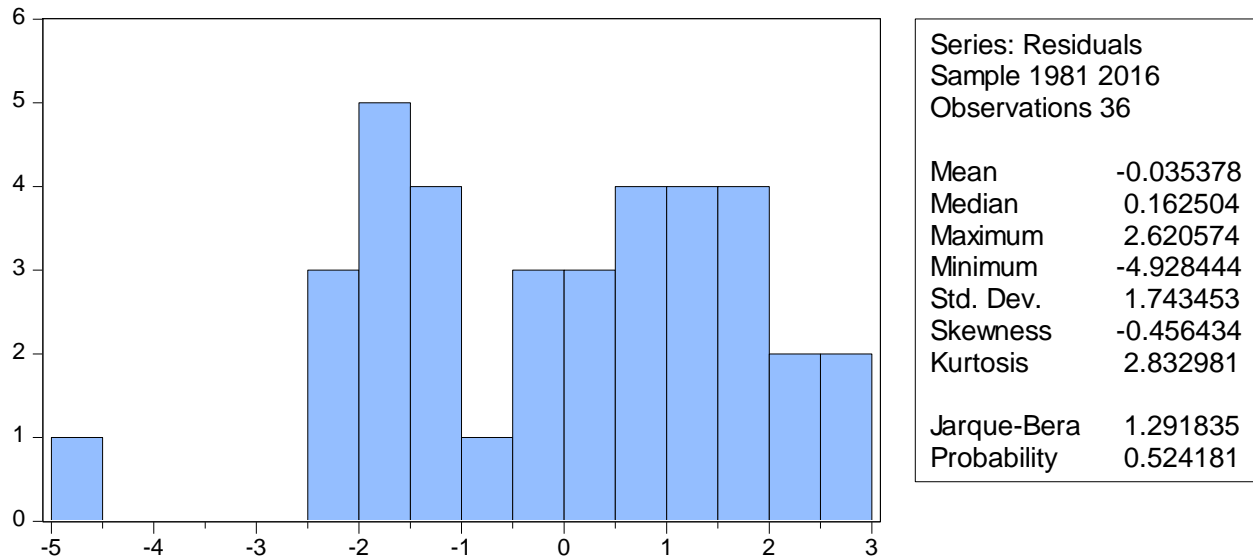
Figure 1: Normality Test

Figure1.Showed that normally test for the model. The Jarque – Bera is 1.292 and the corresponding p- value is 0.524. Since the p- value is greater than the 0.05 level of significance, it is therefore concluded that there is no problem of normality in the residual.

8.0 Conclusion and Recommendations

The premise of this work has been economic growth, inequality and poverty in Nigeria. The work covers the period of 1980–2016, using the Fully Modified Ordinary Least Square (FM-OLS) method and Granger Causality test while test for stationary and co-integration were as pretest analysis. The results show that trade openness Nigeria is highly responsive to real gross domestic product. A short and long run relationship was also found to exist between real gross domestic product and trade openness. RGDP has an adverse effect, but it is not practical on poverty reduction. It means that every Human Development Index and RGDP is increasing; it can encourage poverty reduction in Nigeria. The study considered the relationship between economic growth, inequality and poverty in Nigeria between 1980 and 2016. From the findings of the study, it is hereby concluded that inequality increased poverty level and at the same time increased economic growth during the study period. Also poverty had positive effect on income inequality. Therefore, policies that will reduce inequality will also reduce poverty and vice versa. It is therefore recommended that for the economy to experience growth, inequality must be comprehensively addressed as this will subsequently reduce poverty. Moreover, more emphasis on basic education will help to address the twin monster of inequality and poverty.

REFERENCES

Aghion, P., & P. Bolton.(1997). 'A Theory of Trickle down Growth and   Development. *Review of Economic Studies*, 64:151–72.

Alesina, A & Rodrik, D. (1994). Distributive Politics and Economic Growth, *Quarterly Journal of Economics,* 102(2): 465-490.

Alesina, A & Perotti, D. (1996). Income distribution, Political instability and Investment, *European Economic Review*, 40 (6):.20-28.

Awoyemi, B.T. (2005). "Explaining Income Inequality in Nigeria: A Regression Based Approach". *Journal of Economics and Rural Development*, 4 (6): 45-59.

Barro, R.J. (2008). Inequality and growth revisited. Asian development Bank working papers 11.

Benabou, R. (1996). Inequality and Growth, *National Bureau of Economic Research Macroeconomics Annual*, 11:11-92.

Benhabib, J &Rustichnini, A. (1996). Social conflict and Growth, *Journal of Economic Growth,* 1(1):11-18.

Bertola, G. (1993). Factor shares and Savings in Endogenous Growth, *American Economic Review,* 83(5): 15-25.

Bourguignon, F. (2003).The Poverty-Growth-Inequality triangle. Paper presented in Indian Couneial for research on international economic relations, New Delhi, India.

Castello-clement, A. (2010). Inequality and Growth in advanced Economies; an Empirical Investigation. *Journal of Economic Inequality*, 8(3):293-321.

Central Bank of Nigeria (2010)

Central Bank of Nigeria (2013)

Chui, W.H.(1998).Income Inequality, Human Capital accumulation and Economic Performance, *The Economic Journal*, 108:44-59.

Cingano, F. (2014).Trends in Income- inequality and its Impact on Economic Growth.*OECD Social, Employment and Migration Working Papers, No.* 163, OECD Publishing.

Davis, L.S. (2007). Explaining the Evidence on Inequality and Growth: Informality and Redistribution.*BE Journal of Macroeconomics*, 7(1):1-35.

F.O.S. (2010).Federal Office of Statistics.

Fosu, A. K. (2009). Inequality and the Impact of Growth on Poverty: Comparative Evidence for Sub-Saharan Africa. *Journal of Development Studies*, 45(5): 726–745.

Galor, O. & Joseph, Z. (1993)."Income Distribution and Macroeconomics".*The Review of Economic Studies,* 60 (1): 35-52.

Grossman, H.I., & Kim, M. (1996)."Inequality, Predatium and Welfare", *NBER Working Papers*, 5704, National Bureau of Economic Research, Inc.

Hoi Quoc Le,(2008). The Linkages between Growth, Poverty and Inequality in Vietnam: An Empirical Analysis. Faculty of Economics, National Economics University, 207 Giai Phong Road, Hanoi, Vietnam. Email: hoilq@neu.edu.vn. Telephone: 0912999272.

Knell, M. (1998). Social comparisons, Inequality and Growth, Mimeo, university of Zurich.

Knowles, S (2005). Inequality and Economic Growth: The Empirical Relationship Reconsidered in the Light of Comparable Data. *The Journal of Development Studies,* 41(1): 135-159.

Kuznets, S. (1955). Economic Growth and Income Inequality. *American Economic Review*, 45(1): 1-27.

Nahum, R. A. (2005). Income inequality and Growth; A panel study of Swedish Countries 1960-2000, Arbetstrapport 2003; 3, Institutes for Future Studies.

Ogwumike, F.O., & Afangideh, U. J. (2008)."Financial Development and Income Distribution in Nigeria".*Journal of Monetary and Economic Integration,* 8 (1): 63-89.

Oguntuase, A. (2007). "An Empirical Investigation into the Determinants of Income Distribution in the Nigerian Manufacturing Sector" (Unpublished M.Sc Thesis) Ekiti State University.

Oyekale, A. S., Adeoti, A. I., & Ogunnupe, T.O. (2008)."Sources of Income Inequality and Poverty in Rural and Urban Nigeria". Paper Presented at the 3rd Annual Workshop of Poverty and Economic Policy (PEP) Network Dakar, Senegal (11th -20th June 2004).

Perotti, R. (1992). "Redistribution and Non-consumption Smoothing in an Open Economy", *Review of Economic Studies*, Wiley Blackwell, 63(3): 411-433

Perotti, R. (1996). In Search of the Transmission Mechanism of Fiscal Policy, in NBER *Macroeconomics Annual* 2007, Volume 22, NBER Chapter, pp.169-226.

Person & Tabellini G (1994). Is Inequality harmful for Growth? *American Economic Review*, 84(3): 600-621.

Saint-Paul, G. &Verdier (1993). ''Education, Democracy and Growth'', *Journal of Development Economics,* 42:399-407.

World Development Indicators (2013)