The Effect of Poverty, Income and Gender Inequality on Economic Growth in Nigeria

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DOI: https://dx.doi.org/10.47772/IJRISS.2025.9010047

Received: 13 December 2024; Accepted: 21 December 2024; Published: 30 January 2025

ABSTRACT

This study examined the effect of poverty, income and gender inequality on economic growth in Nigeria within the period 1990-2022. The study employed time series data from the National Bureau of Statistics (NBS), Central Bank of Nigeria (CBN) Statistical Bulletin and World Bank Development Indicator for Nigeria. Adopting the OLS, unit root, Engel and granger co-integration, ECM and residual diagnostic test to analyze the data from the NBS, CBN Statistical bulletin and World Bank Development Indicator for Nigeria, the study specifically determined how poverty, income and gender inequality affects Nigeria's economic growth. The OLS result shows that 86% of the changes in the dependent variable (economic growth) are explained by the independent variables (national poverty rate, income and gender inequality). The study findings shows that as poverty, income and gender inequality decreased, economic growth will increase confirming to the apriori expectations, inferring close links among the independent variables. Based on the findings, it was recommended that deliberate effort should be made by government to creating employment opportunities, fair accessibility to opportunities for both genders and full government intervention as a major tool in order to combat poverty and inequality in Nigeria. The study encourages the adoption of SDGs by the government as a guide during policy formulation and implementation.

Keywords: Poverty, Income Inequality, Gender Inequality

INTRODUCTION

Staggering poverty in the midst of plenty is one of the world's unsolved issues especially in the developing countries. Poverty has multidimensional nature and can be evident in different forms such as deficiency of material income adequate to guarantee good standard of living; hunger and under-nutrition; illness; limited education and fundamental services; persistent rise in mortality and morbidity due to sickness; homelessness and insufficient housing; insecure environments and social exclusion and discrimination (Ogbeide, Nwamaka & Agu,2015).

Poverty is multifaceted in nature and can be seen in many ways, including a lack of material wealth sufficient to ensure a high standard of living, hunger and undernourishment, illness, a lack of access to adequate education and healthcare, a steady rise in the mortality and morbidity rate from disease, homelessness and inadequate housing, unstable environments, and social exclusion and discrimination (World Bank, 2022).

To achieve sustainable economic growth and progress, one must understand the idea of inequality. Thus, inequality is the variation in people's standards of life. Gender, health, wealth, and income are only a few examples of the various sorts of inequality. Poverty and inequality have been theoretically identified as inseparably related, thus the presence of one indicates the presence of the second (Burtless & Smeeding, 2002; Ogbeide & Agu, 2015). The sex bias causes gender-related problems when some members of the society, mostly women and children, may be without political, social, or economic rights, leaving them doubly vulnerable to poverty. In the Nigerian context, income inequality and poverty are complex issues that manifest in a variety of ways, including social-economic and political marginalization, crime, and corruption.

Kolawole and Omobitan (2016) claim that the reality of poverty and inequality in Nigeria exists. This suggests that Nigeria's high rate of poverty conflicts with the nation's enormous riches in both people and human resources. To put it in another way, poverty persists despite abundance. But to raise Nigerians' level of life, many schemes were launched and executed at various times by various administrations. Examples of these efforts include the YOUWIN project, National Economic Empowerment and Development Strategy (NEEDS) 2004, Subsidy Reinvestment and Empowerment Programme (SURE-P) 2012, Small Scale Enterprises in Nigeria, Job Creation Programme (N-Power), the N5Billion School Feeding Program, FADAMA project, and National Directorate of Agricultural Marketing. Equity and development involve enabling more fair access by the poor to health care, education, jobs, capital, and secure land rights, among other things.

A contributing element to poverty and economic inequality problem is government underinvestment in infrastructure, particularly in rural areas across the nation. Income inequality and poverty can be overcome by granting adequate access to a good rural road network, an efficient irrigation system, rural electrification and increased per capita energy consumption amongst other provisions (Dauda, 2021).

Another problem is the ill-practice of capitalism in the Nigerian economy to instigate exploitation and victimization of the human and natural resources in the country. Poverty benefitted the ruling class, ensuring there is always a workforce willing to accept low wages. Similarly, the existence of unemployment and job insecurity meaning that there is always a ‘reserve army of labour’ able and willing to take their place if they are unhappy (Bakare, 2022).

Another serious problem is the misinterpretation of religion beliefs to instigate gender inequality where there are some privileges that is being deprived to the female gender to favour the male gender. This happens more in the Northern part of Nigeria, and we can witness some men practicing such beliefs across other regions of the country making claims that they prefer their women to be housewives rather than working class even if she’s literate. Statistically, the population of the female gender is more compared to the male gender, yet poverty exists more among the female than to the male gender because of this gender inequality issue (Statistical, 2023)

A major problem is Nigeria's leadership that has seen several changes since democracy first established itself, which has contributed to the nation's political instability. When a new government takes office, new policies are also created, neglecting the implementation stage of previously created policies. The political economy of Nigeria has contributed immensely to the level of poverty in the country. The structure of Nigeria’s economy has also worsened the poverty situation increasing brain drain. It has become clear that Nigeria needs good governance in order to translate its national development goals into economic growth and improved welfare.

The importance of inequality for poverty reduction is heavier in the poorest nations of the world, of which Nigeria is not an exception. The empirical evidence between poverty and growth exists but such between poverty, income and gender inequality is lacking hence the choice of this study. But the question of whether any form of relationship exists between economic growth and poverty, income and gender inequality in Nigeria is why this study seeks to ask the following questions: To what extent has poverty affected economic growth in Nigeria? How has income inequality impacted on economic growth in Nigeria? How has gender inequality impacted on the economic growth in Nigeria?

LITERATURE REVIEW

Theoretical Framework

Keynesian/Liberal theory of poverty

In this study, Keynesian/Liberal Theory of Poverty (1883-1946) serves as the theoretical foundation for this investigation. Liberal theory revolves around the idea that not only market distortions but also broad underdevelopment, in its multiple facets can cause poverty. The most prominent pioneer of liberal economics J. M. Keynes (1883-1946) believed that market forces can promote economic development which was in turn perceived to be the single most important tool against poverty. Keynesians suggest growth can promote economic development and thus relieve poverty. Thereby justifying government intervention at the macroeconomic level (via fiscal and monetary policy), mainly to tackle unemployment. They believe that poverty results from lack of job although people wish to work. Keynesians stress on aggregate investment with its positive effect on employment, emerging as the key element in generating the type of growth that permits poverty relief.

Thus, economic growth, labour market opportunities, educational facilities in a country provides a framework in which standards of living as well as the social relations of people are always created and recreated. The structures that are inherent in the society including the organization of social relations such as race, gender, class and power determines the fate of people. In other words, it is the failure of the structures in the society that causes poverty and inequality among people.

The justification for adopting Keysian/Liberal theory of poverty for this study is based on relevance, empirical support, contribution to knowledge, practicality in Nigeria as a case study, empirical support to this study, clarity and precision. This theory forms the foundation upon which this study is built and providing a framework for comprehending the research problem, guiding the collection, interpretation of data and explaining the significance of the research findings.

Empirical Review

Bakare (2022), examined measured income inequality in Nigeria. The study adopted the estimation method using the Lorenz curve and the Gini coefficient approach, the ordinary least square regression technique was employed to analyze the determinants of inequality in Nigeria. The results indicated a depressing level of income inequality for the Nigerian economy. There is a high divergence in income distribution with a rising value of literacy rates indicating the need for public authorities to enact and implement policies. The study recommends that the enacted policies should be targeted at the improvement in the wellbeing of the poor people and those that provide employment and improves a lot of low-paid labourers. The limitation of this study is based on inadequate information by focusing more on income inequality and distribution by not specifying the influence of income inequality in determining the economic growth trend.

Edoumiekumo, Kanmo and Tombota (2021), examined income poverty in Nigeria: incidence, gap, severity and correlates in Bayelsa state using the FGT decomposable class of poverty measures and Logit regression models as analytical tools on the 2009/2010 Nigeria Living standard Survey (NLSS) data. The results showed that 25% of households are income poor. Thus, to escape from poverty the averagely poor has mobilized financial resources that meets 14% of N22393.62 household per capita expenditure monthly and the core poor must mobilize up to 9% of N22393.62 household per capita expenditure monthly. Also, it was found that agriculture and household size increase the probability that a household will be poor, however, the poverty correlates in Bayelsa state are per capita expenditure on education and health, years of schooling and household size. The authors, therefore, recommended the provision of free, compulsory and quality education at least up to the basic levels as well as easily accessible quality health care services. The limitation of this study was limited based on outdated data that cannot influence the present situation surrounding income inequality and economic growth in Nigeria.

Ijaiya, Ijaiya, Bello and Ajayi (2021), examined the impact of economic growth on poverty reduction in Nigeria by taking into consideration a time subscript and a difference-in-difference estimator that describes poverty reduction as a function of changes in economic growth. Using a multiple regression analysis, the result obtained indicates that the initial level of economic growth is not prone to poverty reduction, while a positive change in economic growth is prone to poverty reduction. The study suggests that to improve and sustain the rate of economic growth in Nigeria from which poverty could be reduced measures, such as, stable macro-economic policies, huge investment in agriculture, infrastructural development and good governance are to be implemented. The limitation in this study is that the period covered by the study did not take into consideration the sustainable development goals (SDGs).

Osahon and Osarobo (2020), examined poverty and income inequality in Nigeria: an empirical assessment 1980 to 2018, using the error correction mechanism. The authors found that a positive relationship exists between poverty (proxy by private consumption expenditure) and economic growth in the long run. The study recommends that, for the sake of sustainable improvements in the economy, the government at all levels should amongst others, should focus more on the development of essential social services for easier access to education, health, transportation and financial services. This should be complemented by executing relevant development programmes that will boost the income level of the poor, which is desirable for both income redistribution and poverty alleviation purposes. The limitation of this study was based on outdated data that cannot influence the present situation surrounding poverty and income inequality in Nigeria.

Nwosa and Ehinomen (2020), examined the nexus among income inequality, poverty and economic growth in Nigeria from 1981 to 2018 using autoregressive distributed lag method of estimation. The result showed that while inequality has a positive and significant effect on economic growth in Nigeria, poverty has an insignificant impact on economic growth. However, expenditure on other social sectors like education and health has not increased much and needs more support. The study recommends that government should focus on policies to increase economic growth to combat poverty. However, the limitation of this study is based on the period of coverage not recent and hence, information obtained from the analysis is outdated on basis of the number of variables adopted during research for current policy making. The empirical links between the variables were, however, not clearly specified in the models.

Dada and Fanowopo (2020), using autoregressive distributed lag examined the impact of institutions on the relationship between economic growth and poverty reduction in Nigeria using data from 1984 to 2018. The result of the study showed that economic growth and institutions (proxied by corruption control and political stability) positively affect poverty reduction both in the short run and the long run. The result of the study shows inequality growth rate increases poverty and economic growth reduces poverty. Also, there is difference across group and region in the growth-poverty-inequality trilemma. However, the study recommends that income inequality is a great determinant of poverty. Thus, the study suggests that both economic growth and strong institutions are significant factors that can be used in reducing poverty in Nigeria. The limitation in this study is that the period covered by the study did not take into consideration the sustainable development goals which my study would make a difference. Also, another limitation in this study is that the scope of the period under observation is too small.

Adeleye, Gershon, Ogundipe, Owolabi, Ogunrinola and Adediran (2020), assess growth-poverty-inequality relationship from 2000 to 2015 with focus on 58 SSA, Latin American and Caribbean countries, measuring poverty and inequality using per capita consumption expenditure growth and Gini index respectively. The findings showed that economic growth exhibits some poverty-reduction properties. However, inequality intensifies poverty and at the same time prevents growth from reducing poverty. The findings above however appear to be at variance with an earlier study by Fosu (2015) in which it was reported that in most countries' in SSA changes in income and inequalities have led to decline in poverty, particularly since the mid-1990s than during the period 1980 to 1990s. The author noted that while growth contributed to the success generally in the region, in some specific countries, reduction in inequality enhanced poverty reduction. This result is also in tandem with the findings of a study along the same line by the author (see Fosu, 2017). The critique is that the periods covered under the study are not up to date and the estimation technique adopted for analysis is simple.

Osabohien et al. (2019), using generalized method of moments for 15 West African countries examined agricultural development in Nigeria, in relationship with job creation and poverty alleviation. The result of the panel data for the period 2000–2016 showed that agriculture value- added have a negative impact on poverty in the 15 West African countries examined. The experience for nearly two decades, poverty persisted as a result of the offset of growth impact on poverty by distributional changes. In other words, inequality in these countries has prevented growth from alleviating poverty. The implication as recommended is that inequality can prevent sustainable development. The study recommends that more policies by the Nigerian government should be channeled into reviving and boosting the agricultural sector of the country to aid job creations. The limitation in this study was that it lacked enough empirical evidence during analysis. Another limitation was that the type of methodology adopted during analysis by the researchers is not solid enough to support their findings.

Danaan (2018), explores the theoretical nature of poverty in Nigeria. The study used multiple regression analysis. The study argues that poverty is complex and multidimensional phenomena because the factors that affect it cut across the social, psychological, economic and cultural spheres of existence. The study suggests the knowledge of these factors that causes poverty in creating pro-poor strategies and a hydra- headed method of addressing its effect increasingly and excellently. The paper argues that empowering people to develop resilience to manage and overcome it within the range of their resources and capabilities is a means of reducing poverty. The limitation in this study was it fails to provide information on other variables associated with poverty rate and the effects such factors will have in influencing economic growth in Nigeria either positively or negatively.

Fosu (2017), examined the role of income inequality in the transformation of economic growth to poverty reduction using data for both country specific and regional developing countries from the early 1990s. Poverty headcount ratios of 1.25 USD and 2.50 USD per day were used. The study found that the major factor driving increase and decline in poverty is the average income growth. Also, evidence suggests that in states where the major driver of poverty reduction has been growth there is an opinion that more progress can be achieved when there is even distribution of income. The study was limited by outdated measurement of poverty line as it has been increased by World Bank. Another limitation in this study is that the author did not adopt a definite regression method to run analysis on the variables used during the study.

Garza-Rodriguez, Andrade-Velasco, Martinez-Silva, Renteria-Rodriguez and Vallejo-Castillo (2016), analyze the dynamic relationship between population growth and economic development, through a structural break co-integration analysis for the period 1960-2014. The Gregory-Hansen co-integration test confirmed the existence of a long run equilibrium. Based on the results of this test, using 1985 as the year in which the structural break occurs in the co-integrating equation and therefore the inclusion of a dummy variable for this year in the VECM developed in the paper, results obtained suggested that in the short run, economic growth has a negative effect on population growth, while in the long run, population has a positive effect on per capita GDP and per capita GDP also positively affects population. The study was criticized for using very few population samples during research without a fair representation and the periods covered in this study is outdated.

Dauda (2017), carried out a study on the forms of inequality and poverty between Northern part of Nigeria and Southern part. The data were analyzed using descriptive statistics. The findings from the study conducted shows that geographically, the levels of all forms of inequality and poverty are higher in the Northern than in the Southern part of Nigeria. Accordingly, inequality appears higher in the rural compared to urban areas in the country while poverty rate in the rural area exceeds the rate in the urban area. It therefore implies that policies geared towards poverty alleviation can reduce inequality while programmes aimed at lowering inequality can also reduce poverty. Also, the study suggests that farmers should be granted more incentives through loans and grants to encourage large food production in the country. The technique adopted was suitable for this topic. The critique was that the study did not carry out any empirical analysis to justify its findings. Another limitation in this study was that the periods covered by the researchers was a limited time frame plus it lacks sufficient empirical evidence to support its findings.

METHODOLOGY

Research Design

This research is designed to be an ex-post, experimental research. This is because it is case controlled study. The research adopted the Ordinary least square regression analysis method of estimation technique because of its BLUE (Best, Linear, Unbiased Estimator) properties. This study is focused on the empirical analysis of poverty, income and gender inequality effects on economic growth in Nigeria.

Data Collection Method and Sources

Data for this study were mainly time series generated from secondary sources. Data sources were from National Bureau of Statistics, Central Bank of Nigeria statistical Bulletin and World Bank Development Indicator for Nigeria.

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume IX Issue I January 2025

Technique of Data Analysis

This study used the ordinary least square method, ADF unit root test, Engel and Granger Co-integration test, error correction mechanism and residual diagnostics test. Ordinary Least Square technique was adopted in this study to take care of the short-run behaviour of the variables in the model.

Model Specification Mathematically:

RGDP = f (POV, INEQ) -- (3.1)

In respect to this research study, the model is re-stated as:

RGDP = f (PR, IE, GI) --- (3.2)

The econometric form of the model above is stated as:

$RGDP_t = \beta_0 + \beta_1 PRt + \beta_2 IEt + \beta_3 GI_t + U_t$ -- (3.3)

Where:

RGDP = Real Gross Domestic Product Growth Rate (GDP at constant prices)

PR = Poverty Rate as percentage of total population (PR)

IE = Income Inequality proxy by Gini Coefficient Index (IE)

GI = Gender Inequality proxy by Gender Development Index (GI)

U_t = stochastic error term

β_0 = constant term

β_1 to β_3 = coefficients of the variables

Apriori Expectation; $\beta 1 < 0$, $\beta 2 < 0$, $\beta 3 > 0$

Variables in the Model

Dependent Variable

Economic Growth: This is an indicator of the increase in the production of goods and services in a country and the value of the goods being produced. It is measure by gross domestic product.

Independent Variables

Income inequality: This is an indicator of how material resources are distributed across the entire society. It is measured by Gini coefficients which is 0, when everybody has equal income and 1, when one individual has all the income.

Gender inequality: The GDI measures the gender gap in human development achievements by accounting for disparities between women and men in 3 basic dimensions of human development: a long and healthy life, knowledge, and a decent standard of living. The ratio is calculated as female HDI to male HDI. A value equal to 1 indicates development equality between genders, while values further from 1 have less development equality between genders.

Poverty was obtained from the National poverty head count. Here poverty represents the condition in which income is meagre to meet the fundamental requirement of human beings like food, housing, clothing, health care and at least access to basic education.

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS |Volume IX Issue I January 2025

Unit Root Test

$\Delta GDP = \Delta b_0 + \Delta b_1 PR + \Delta b_2 IE - \Delta b_3 GI + U_t$

This was used in order to avoid false results that would lead to biased estimates and unpredictability. The time series data were tested for stationary. ADF was employed to test the order of integration of the variables. $\Delta GDP = \Delta b_0 + \Delta b_1 PR + \Delta b_2 IE - \Delta b_3 GI + U_t$

Engel and Granger Co-Integration Test

$\beta GDP = \beta_0 + \beta_1 PR + \beta_2 IE - \beta_3 GI + U_t$

The study adopted the Engel and granger co-integration test to determine long-run relationship among the variables.

$\beta GINI = \beta_0 + \beta_1 PR + \beta_2 IE - \beta_3 GI + U_t$

RESULTS

Table 1: Descriptive Summary Statistics

	Rgdp	Poverty_Rate	Income Inequality	Gender Inequality
Mean	244.6248	67.17152	41.94848	0.888182
Median	238.4500	71.20000	40.10000	0.890000
Maximum	574.1800	88.00000	51.90000	0.910000
Minimum	27.75000	40.00000	34.00000	0.860000
Std. Dev.	184.0890	12.11063	6.727050	0.014021
Skewness	0.186430	-0.748889	0.332507	-0.431593
Kurtosis	1.421716	2.735977	1.450708	1.702905
Jarque-Bera	3.616257	3.180443	3.908504	3.337875
Probability	0.163961	0.203880	0.141670	0.188447
Sum	8072.620	2216.660	1384.300	29.31000
Sum Sq. Dev.	1084440.	4693.353	1448.102	0.006291
Observations	33	33	33	33

Source: Computed by author using E-views 10, 2023

The trend in the variables is shown below: GDP rate (GDP), poverty rate (PR), income inequality (IE) and gender inequality (GI) (1990-2022).

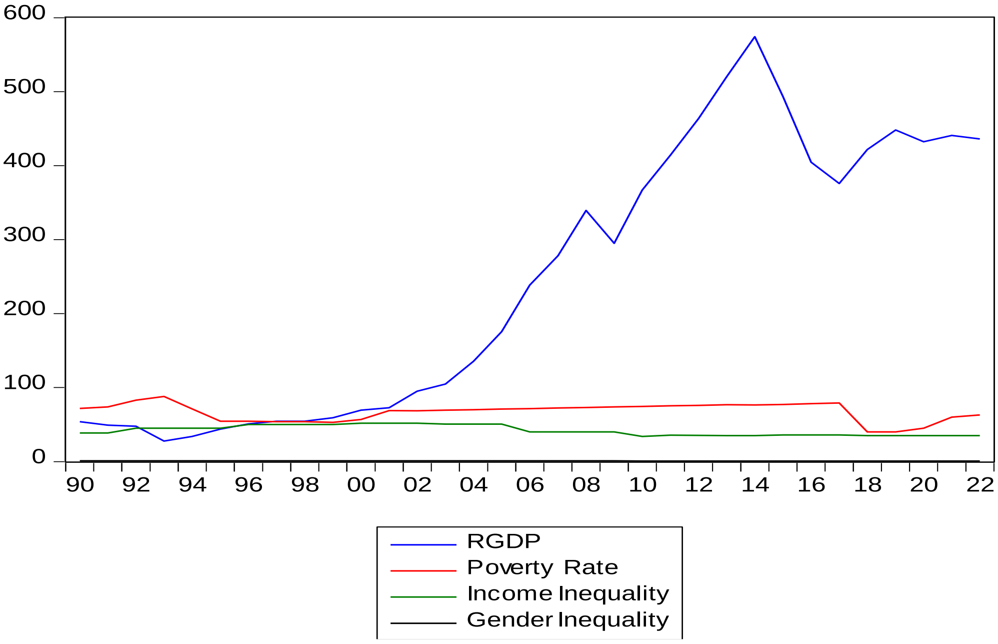

Figure 1: Trend Analysis of the variables

Table 2: Unit Root Test (ADF-Test)

Variable	ADF Statistic	1% Critical Value	5% Critical Value	P-Value	Order of Integration	Remarks
D(RGDP)	-3.7387	-4.2846	-3.5629	0.0344	I(1)	Stationary
D(PR)	-4.529	-4.2846	-3.5629	0.0056	I(1)	Stationary
D(IE)	-5.866	-4.2846	-3.5629	0.0002	I(1)	Stationary
D(GI)	-7.4839	-4.2846	-3.5629	0	I(1)	Stationary

Source: Computed by author using E-views 10, 2023

Table 3: Engel and Granger Co-integration Test

Dependent	tau-statistic	Prob.*	z-statistic	Prob.*
Rgdp	-3.359333	0.2975	-16.38795	0.0015
Poverty_Rate	-2.294260	0.7736	-9.400199	0.0429
Income Inequality	-2.912843	0.4930	-10.13719	0.0423
Gender Inequality	-3.554267	0.2283	-19.06269	0.0262

MacKinnon (1996) p-values.

Source: Computed by author using E-views 10, 2023

Table 4: Error Correction Model Results

Dependent Variable: D(RGDP)

Variable	Coefficient	Std. Error	t-Statistics	Prob.
D(PR)	-0.257193	1235.917	-0.247781	0.8060
D(IE)	-6.897236	1.037985	2.166900	0.0386

D(GI)	-9410.886	3.182998	6.203478	0.0000
ECM (-1)	-0.694304	0.221685	-2.721446	0.0158
R-Square=0.868	Adjusted R-square= 0.854			
DW Stat. = 1.95	F-test = 63.80			

Source: Computed by author using E-views 10, 2023

Table 5: Residual Diagnostic tests

Residual Diagnostic tests	**Prob. Chi-square**
Breusch-Godfrey Serial Correlation LM Test	0.2402
Heteroskedasticity Test: Breusch-Pagan-Godfrey	0.1489
Jarque Berra Normality test	0.5266

Source: Computed by author using E-views 10, 2023

Descriptive Trend Analysis

The data presented in table 4.1 shows the detail account of the summary statistics for the explained and explanatory variables respectively. The average economic growth as proxied by real GDP is about 244.6348 with standard deviation of 184.0890. In respect of poverty, the mean value is 67.17 with a standard deviation of 12.11. The analysis of income inequality shows a mean value of 41.94 with the value of standard deviation of 6.72. Finally, the mean value of GI shows a mean value of 0.88 with the value of standard deviation of 0.01.

Graph on GDP, PR, IE and GI

The graph above on poverty rate (PR), income inequality (IE) and gender inequality (GI) shows the result of the trend for economic growth which shows a fluctuating increase and decrease in the trend of GDP within this period. The driving forces to the fluctuating movement are the emergence of the Covid-19 pandemic, efforts by the government to print new currencies with aim to replace the old currencies, recession amongst others.

Also, the graph shows the result of trend for economic growth and the effects of poverty rate, income and gender inequality from 1990-2022. The result of the trend shows that income inequality and gender inequality trend have a negative and fluctuating effect on the GDP in a declining movement.

Finally, the graph shows the result of the trend for economic growth and the effects of poverty, income and gender inequality from 1990-2022. The result of the trend shows that the poverty rate has a negative and increasing effect as a result of the rising trend on the GDP in Nigeria at the long run which is normal by economic theory.

Unit root test (ADF)

The data presented in table 4.2 above shows the results of unit root test for Augmented Dickey Fuller Test. It shows that in the process of comparing the test statistic value against the Mackinnon critical value at 5% level of significance, it was noticed that D(RGDP), D(POVERTY), D(INCOME INEQUALITY) and D(GENDER INEQUALITY) were found to be stationary at first difference. Hence, having tested for the stationarity of the variables, we proceed to test for the long run relationships of the variables which give us the Engel and granger co-integration result.

Engel and Granger Co-integration Test

The data presented in table 4.3 above depicts that the Engel Granger Test, it constructs residuals (errors) based on the static regression. The test uses the residuals to see if unit roots are present, using Augmented Dickey-Fuller test or another similar test. The residuals will be practically stationary if the time series is co-integrated. Thus, if the p-values are less than 0.05, the null hypothesis is rejected while the alternative hypothesis is accepted. From the results above, the variables are co-integrated by accepting the alternative hypothesis and rejecting the null hypothesis.

Error Correction Mechanism (ECM)

The data presented in table 4.4 above depicts that the output of a parsimonious error correction model (ECM). It shows that about 69.4 percent of the discrepancy between the actual and the long run or equilibrium value of real gross domestic product corrected or eliminated each year. Notice that the coefficient of the ECM has a negative sign as expected and is significant at 1% probability level. Thus, this validates our earlier position that the variables under study are indeed co-integrated.

Residual Diagnostic Results

The data presented in table 4.5 above depicts that the residual diagnostic tests probability values are greater than 5% level of significance. Thus, the probability chi-square value for Breusch-Godfrey Serial Correlation LM Test is 0.2402 shows the absence of serial auto-correlation test. Based on the findings, the probability of the chi-square (2) is 0.2402 and this is greater than 0.05 at 5% significance level and therefore the null hypothesis is accepted. This implies and therefore confirms the absence of serial correlation.

Also, the probability chi-square for Heteroskedasticity Test: Breusch-Pagan-Godfrey is 0.1489 shows the absence of heteroskedasticity. Based on the findings, the probability of chi-square (3) is 0.1489 and this is greater than 0.05 at 5% significant level and therefore the null hypothesis is accepted. This implies and therefore confirms the absence of heteroscedasticity in the model. In essence, they have constant variance in repeated sampling.

Finally, the probability chi-square for Jarque Berra Normality test is 0.5266 shows that all the variables are normally distributed.

DISCUSSION OF FINDINGS

During this study, from the regression, it shows that poverty rate is negative and significant to real gross domestic product. Given that poverty rate p-value is more than the level of significance of 0.05 (0.8060) and it revealed that poverty rate does have significant impact on economic growth in Nigeria during the study period. Therefore, it is consistent with the findings of Danaan (2018), explores the theoretical nature of poverty in Nigeria. The study used multiple regression analysis. The study argues that poverty is complex and multidimensional phenomena because the factors that affect it cut across the social, psychological, economic and cultural spheres of existence. Also, it is consistent with the findings of Ijaiya, Ijaiya, Bello and Ajayi (2021), examined the impact of economic growth on poverty reduction in Nigeria by taking into consideration a time subscript and a difference-in-difference estimator that describes poverty reduction as a function of changes in economic growth.

From the second hypothesis the result of the regression, shows that the income inequality is negative to RGDP. Given that the p-value value is less than the level of significance 0.05(0.0368) revealed that the income inequality does have significant impact on economic growth in Nigeria during the study period. The result is consistent with the findings of Bakare (2022), in an examination of the topic measured income inequality in Nigeria. The results indicated a depressing level of income inequality for the Nigerian economy. Also, it is consistent with the findings of Ogbeide and Agu (2015), sought to establish the existence of a causal relationship between poverty and inequality in Nigeria for the period of 1980 to 2010. The result of the study showed that there is a response causality effect between poverty and inequality with no causality between poverty and unemployment in the country. Hence, the relationship between poverty and inequality is direct, while there exists an indirect relationship between them through unemployment and life expectancy leading to inequality and inequality producing poverty.

From the third hypothesis the result of the regression, shows that the gender inequality (proxy by education, health and economic resources distribution) is negative to RGDP. Given that the p-value value is less than the level of significance 0.05(0.0000) revealed that the gender development index does have significant impact on economic growth in Nigeria during the study period. The result is consistent with the findings of Chowdhury et al (2014), conducted a study in Bangladesh where gender inequality is high, focusing on the coastal fishing communities of Cox’s Bazar. The study is also consistent with the findings of Dauda (2017), carried out a study on the forms of inequality and poverty between Northern part of Nigeria and Southern part. The data were analyzed using descriptive statistics. The findings from the study conducted shows that geographically, the levels of all forms of inequality and poverty are higher in the Northern than in the Southern part of Nigeria. Accordingly, gender inequality appears higher in the rural compared to urban areas in the country while poverty rate in the rural area exceeds the rate in the urban area. It therefore implies that policies geared towards poverty alleviation can reduce gender inequality while programmes aimed at lowering inequality can also reduce poverty. Also, the study suggests that farmers should be granted more incentives through loans and grants to encourage large food production in the country.

Conclusively, this becomes an incentive for Nigerian governments to create policies that will empower the regulatory bodies of the country to ensure that a fair distribution of income is achieved. This will enhance circulation of money in the economic where wealth will not be in the hands of the few but in the hands of majority Nigerians.

CONCLUSION

The study found that poverty, income and gender inequality have an impact on economic growth, which has an impact on Nigerians' capacity for long-term development. Utilizing data from the years 1990 to 2022, this study experimentally analyzed the link between poverty, inequality (income and gender), and economic growth in Nigeria. The study concludes that the government of the nation must develop an all-encompassing strategy and program by fully implementing the Sustainable Development Goals (SDG 1 and 10) that will be directed towards the poor and provide them with plenty of opportunity to better their wellbeing.

The study's conclusion is that the government of the nation must develop a comprehensive strategy and programme that is aimed at the poor and provides them with many opportunities to enhance their welfare. Since most income and gender inequality in the nation tends to be obvious and visible in rural areas and places with low social and economic welfare, it follows that the government must provide basic infrastructure such as good roads, schools, healthcare facilities, availability of good water supply, and electricity to people in those areas. If done correctly, it will eventually lead to a reduction in poverty and inequality (between genders and income) in the nation.

Policy Implication of Findings

This study will also serve as a reference for other researchers, students, government institutions, independent bodies, academia generally, and other economic units to draw conclusions and develop further studies on the topic effect of poverty, income and gender inequality on economic growth in Nigeria by highlighting the detrimental effects of poverty, income and gender inequality in relation to economic growth. The results from this study have important implications on poverty rate, income and gender inequality impact on economic growth in Nigeria. The result indicates that poverty rate has a negative effect on the level of economic growth in Nigeria. Also, the result indicates that income inequality and gender inequality have a negative effect on the level of economic growth in Nigeria. This study offers at least three different sorts of fundamental, long-term changes that might help Nigerians escape poverty and promote and sustain pro-poor prosperity. These recommendations are:

1. Macroeconomic changes (including fiscal, trade, and exchange rate policy).
2. Measures to increase the productivity of agricultural and nonagricultural domestic businesses.

3. Expanding access to energy, water, and sanitation while advancing information and communication technology.

Together, these changes may contribute to the economy's diversification, boost structural change, produce quality employment, and support social safety programs and other redistributive government initiatives. The study highlights the urgency of these reforms given Nigeria's rising population; now is the moment to make sure the nation seizes the opportunity for economic success presented by its youthful people. It continues by stating that intensifying efforts to consistently collect and evaluate data would be crucial in determining the specifics of Nigeria's plans to reduce poverty.

This study further makes additional recommendations for poverty alleviation reducing income and gender inequalities to be implemented by government through various public and private parastatals such as regulatory bodies, ministries, departments and agencies below:

1. To further advance women's empowerment, more women should be appointed to administrative positions at the federal, state, and municipal levels of government to lessen the gender inequality gap and strengthen the fight against poverty.
2. By creating more jobs for the bulk of the population via both public expenditure and private investment, productivity will rise. This may be accomplished by actively involving the regulatory institutions to increase accountability and transparency across all facets of the Nigerian economy.
3. Diversification of the Nigerian economy to boost productivity in other sectors of the economy among the large labour force of Nigerians.
4. A shift towards equality may be achieved through various forms of public expenditures especially those that are meant the poorer sector of the Nigerian society.

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