

INCOME INEQUALITY AND ECONOMIC DEVELOPMENT IN NIGERIA: AN EMPIRICAL ASSESSMENT

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ABSTRACT

The study examined the impact of income inequality on economic development in Nigeria for the period of 1989 to 2020. The specific objectives were to examine if gini coefficient has a significant impact on per capita income in Nigeria, to ascertain if poverty rate has a significant impact on per capita income in Nigeria and to determine if inflation rate has a significant impact on per capita income in Nigeria. The study made use of quantitative research design which involved the use of secondary method of data collection. The data collected was analyzed through multiple linear regression. The findings revealed that income inequality as proxied by gini coefficient and poverty rate has a negative and significant impact on per capita income, while inflation rate has a negative but insignificant impact on per capita income in Nigeria. It is therefore recommended that government should direct its policies and programs towards measures that enhance income redistribution, as this would reduce the level of inequality and ensure an even distribution of income; government should keep the rising inflation rate at single digit, while creation of government's social investment program should be encouraged to capture more unemployed people, so as to enhance the availability of income on every household and citizen of Nigeria, among others were proffered.

Keywords: Income Inequality, Gini Coefficient, Poverty Rate, Per Capita Income, Economic Development.

JEL Classification: D31, D63, E25, E31, I32, I32, O11.

1. INTRODUCTION

This study is on income inequality and its impact on economic development in Nigeria. There has been conflicting views on the various school of thought on the literature. There exists the school of thought that is of the view that income inequality is positively correlated to growth and per capita income while others are of the view that income inequality is negatively correlated to growth and per capita income.

Mendes (2013), was of the view that the school of thought that believes in a positive correlation between income inequality and economic growth is due to two factors which are savings and incentives. That since in an economy, the rich have a higher propensity to save than the poor, income concentration which results from a high level of income inequality would then lead to a high level of

savings which would in turn transform to a high level of investment. This investment would then be transformed to a higher per capita income.

The second school of thought that believes in a negative correlation between income inequality and per capita income were of the view that incentive to get rich which comes as a reward for performance would result in income inequality due to the various abilities of individuals. That is, the higher the performance, the higher the rewards and income of these individuals thereby concentrating income in a few. On the short run, this income inequality would lead to higher per capita income due to these incentives that motivates investments. But on the long run, any attempt by the government to use its policies to redistribute income by introducing a tax system that creates burden on entrepreneurs or capitalist would result in a reduction in these incentives thereby hampering per capita income as well as growth.

Economic development involves the increase in standard of living in a nation's population with sustained growth from a simple, low-income economy to a modern high-income economy. But a country would not be said to have developed unless it has attained a very high level of sustainable growth. Given the high level of poverty in a developing country like Nigeria, achieving a growth level which is sustainable and an increase in per capita income would enhance even distribution of income and poverty reduction (Okafor, 2016).

Nigeria over the years has pursued a macroeconomic policy objective of sustainable economic growth and development. The level of growth attained so far has not been enough to guarantee economic development. Economic development in this study as measured by per capita income has been on the decline. This decline could be attributed to the high level of income gap or income inequality as measured by gini coefficient, and the high level of poverty as measured by the poverty rate. It is this problem that this study is set out to resolve. This study intends to examine if there exist a significant impact of income inequality and poverty on economic development in Nigeria for the period under review (1989-2020).

The last three decades from the sales of crude oil in Nigeria has earned the country a huge sum of US\$300billion. One would think that one would think that such wealth from oil would increase the socio-economic wellbeing of the citizens but instead Nigeria by its basic social indicators is placed as one of the poorest countries in the world (NBS, 2010). It is on this note that the study therefore basically examines the implications of income inequality on economic development in Nigeria.

Specifically, the study seeks to determine if gini coefficient have a significant impact on per capita income, to ascertain if poverty rate have a significant impact on per capita income in Nigeria, and to ascertain if inflation rate have a significant impact on per capita income in Nigeria. In addition, the following hypotheses are formulated and tested against their alternatives: (i) H_{01} : Gini coefficient does not have a significant impact on per capita income in Nigeria; and (ii) H_{02} : Poverty rate does not have a significant impact on per capita income in Nigeria; and (iii) H_{03} : Inflation rate does not have a significant impact on per capita income in Nigeria.

In achieving its objectives, the study is restricted to the period between 1989 and 2020. The rest of the paper dwells on the literature review, methodology, theoretical framework, discussion of empirical results and policy implications, conclusion and recommendations.

2. LITERATURE REVIEW

2.1 Conceptual Review

Gallo (2002) sees inequality as the margin between the various standard of living of the population. In developing countries, over seventy percent (70%) of the populace live in highly unequal societies (Clark, 2015). Over the years, inequality as measured by gini coefficient has increased. In Nigeria, majority of the citizens live in abject poverty while only a few are rich. This increases the level of inequality in the country. Dali (2015) is of the view that the absence of an equitable distribution of economic and human resources coupled up with the growing corruption level is one of the main causes of inequality.

Matthew and Mordecai (2016) conceptualized economic development as the increase in the standard of living in a nation's population with sustained growth from a simple, low-income economy to a modern high-income economy. According to Jhingan (2003), economic development involves achieving a balance in all sectors of the economy in the process of production of goods and services be it agriculture, finance, manufacturing, health, education, etc. In conceptualizing economic development, Adejumo and Adejumo (2014) posited that the economic challenge inherent in the Nigerian economy include social issues such as poverty, low per capita income, inequitable distribution of income, low capital formation, inefficiency in the mobilization of resource, over-dependence on a singular commodity (i.e. oil-as a major source of income), and inflation rate.

There has been no concise definition to poverty as it affects many aspects of human condition which includes physical, moral, social, emotions and psychological. Most people view poverty as resulting from lack of sufficient fund to be used in the acquisition of basic needs (which includes food, clothing, shelter etc.), while others view poverty as a function of health, education, life expectancy etc. Olayemi (2012) conceptualized poverty in four different ways; those that lack access to basic needs; those that lack access to productive resources, those that lack sufficient use of common resources; and those that are excluded from economic activities.

2.2 Empirical Review

Previous studies have been carried out on this subject. Oyekale, Bayedo, and Olugbire (2021) examined the poverty status of farming households in Odogbolu Local Government area of Ogun State. Data were collected from 120 farming households. Multistage sampling procedure was adopted in this study. Descriptive statistics, Foster Greer and Thorbeck (FGT) and Tobit regression model were used for the data analysis. The result showed that 26.7% of the household were poor. The female headed household were poorer (42%) that the male headed household (21%). Poverty was pronounced among the married. The tobit regression result shows that age, household size significantly increases poverty status at ($p < 0.10$) and ($p < 0.01$) respectively, while land size cultivated by farmers significantly reduce it at ($p < 0.05$). To alleviate poverty, they concluded that large family size should be discouraged through intense orientation campaign for birth control or family planning and its benefit, so as to minimize dependency ratio. Also measure should be taken towards encouraging farmers to cultivate large farm size by providing land, implements such as tractors, spraying machine etc. that could aid their farming activities, enhances their productivity thereby increase their income and this will be in collaboration sustainable Development Goals (SDGs).

Idris, Thomas, and Muhammadkabir (2021) examined the implications of free trade area for poverty, household welfare and economic development in Nigeria. To achieve this, they employed a fully modified least squares (FMOLS) regression technique to estimate time series data drawn from central bank statistical bulletin spanning the period 1991 to 2017. The econometric e-view statistical software version 7 was used for the analysis. The study revealed that free trade scenarios contributed positively to the welfare of individual as well leading to reduction of unemployment. Therefore, they recommended that policy makers should focus more on policies that will promote foreign direct

investment, export contributions to growth and simplification of trade regulations so as to further improve on the positive gains of free trade area on the households' welfare, and poverty in Nigeria.

Oriakhi (2021) examined the relationship between poverty reduction, government expenditure, and economic growth in Nigeria. The study aimed at proving that there is a bi-directional causal relationship between these variables. A Vector Error Correction Model was specified, and variables included in the model were Poverty Reduction (POVRd), Total Government Expenditure (TGEXP), Real Gross Domestic Product Per Capita (RGDPpc) as a proxy for Economic Growth, and Natural Resource Rents (NRENT). Time series data was analyzed for a period of 38 years. The Study employed the Block Exogeneity Wald Test to check for causality between variables, the Vector Error Correction Model (VECM) to analyze the speed of adjustment process and short run transmission mechanism among the variables, the Forecast Error Variance Decomposition to examine total variability in variables due to shocks in itself and in other variables of the model, and the Inverse Roots of AR Characteristics Polynomial to check the state of impulse responses in the estimated model. The findings indicated that there exists a bi-directional relationship between variables. Each variable explained to different percentage levels, variations in shocks in itself and in other variables of the model at different periods. In general, there exists a bi-directional causality between total government expenditure and poverty reduction in Nigeria. Therefore, the study concludes with recommendations for increase in government expenditure to bring about reduction in poverty, the adoption of pro-growth and pro-poor policies and a transparent and corruption free governance.

Nwosu (2019) carried out a study on income inequality and economic growth in Nigeria and its implication on economic development. The period for the study covered thirty-six years (1981-2017). The autoregressive distributive lag estimator technique was used. The result revealed that economic growth had a positive but insignificant impact on income inequality in Nigeria. The study therefore recommended that the budgetary preparation of government should take into account the needs of the poor in order to improve their welfare than enriching the already rich ones. Also, that government should ensure that economic gains are equally shared amongst the poor.

Olowu, Ichoku and Nwosu (2018) investigated the spatial factors that influence distribution of poverty in multiple dimensions in Delta State. The work was informed by the spatial nature of the State in terms of geographical characteristics and how these influence incidence of poverty which has not been investigated in multidimensional framework. The study employed spatial regression analysis in order to estimate the effects of spatial factors on prevalence of poverty in Delta State. The study employed the Harmonised Nigeria Living Standards Survey 2008/2009 (HNLSS) published in 2010 by the National Bureau of Statistics (NBS) and the Generalized Household Survey (2013). The results showed that some spatial variables such as households distance to the nearest major road, annual precipitation, precipitation of the wettest month significantly determine spatial distribution of poverty in Delta State.

Another study was carried out by Adinde (2017) on the impact of income inequality on economic growth using Nigeria as a case study. The objective of the study was to examine if Kuznets curve holds in order to suggest effective policy measures to bridge the gap between the rich and the poor. Secondary data which was sourced from World Bank archives, National Bureau of Statistics, were used for the study. A quadratic function test was estimated in order to ascertain the shape of the Kuznets curve. The result revealed that Kuznets inverted -U curve does not hold in Nigeria. Also conducted was the granger causality test in order to examine the relationship between income inequality and economic growth. The result shows that gross domestic product granger causes income inequality in Nigeria. The findings from the study shows that as economic growth increases, the income inequality level worsens in Nigeria. The study recommends that government should come up with measures that increases

economic growth while at the same time reducing the gap between the rich and the poor by ensuring an equal distribution of resources.

A study carried out by Okafor (2016) on “Economic growth, poverty and income inequality matrix in Nigeria: A further investigation”, made use of vector auto-regressive (VAR) model together with the Engle-Granger technique to test for causality among the variables. The result found that economic growth had no impact on the level of poverty and income distribution in Nigeria. The study recommended stronger economic institutions to be put in place by government which would enhance the productive base and reward system in the economy.

Akpoilili and Farayibi (2012) carried out a study on “economic growth and inequality in Nigeria: Magnitudes and challenges”. The objective of the study was to examine the relationship between growth and inequality in Nigeria. The study made use of trend analysis to ascertain the magnitude and the challenges of income inequality in Nigeria. The findings revealed that inequality reduces growth through reduced investment and that the inefficiency of government reduces growth due to corruption. The study recommends policy consistency and sound institutional framework to resolve the high level of inequality and poverty.

Akinbobola and Shaibu (2004) carried out a study on income inequality, unemployment and poverty in Nigeria: A vector autoregressive approach. The objective of the paper was to analyze the fundamental trend of per capita income, government capital expenditure, the human development index and the unemployment rate in Nigeria. A vector autoregressive (VAR) model was used for the study. The study revealed that a reduced unemployment rate, enhance human development and reduces poverty. It also found that as public capital expenditure growth rises, unemployment rate falls and there is an improvement in human development index.

Akutson, Messiah and Araf (2018) carried out a study on the impact of unemployment on economic growth in Nigeria: An application of Autoregressive Distributed Lag (ARDL) Bound Test. The objective of the study was to examine the relationship between unemployment and economic growth in Nigeria and also to determine the effect of unemployment on economic growth in Nigeria. The study employed the quantitative research design. Annual secondary data which was sourced from the Central Bank of Nigeria Statistical Bulletin and National Bureau of Statistics covering the period of 1986-2015 was used. The data was analyzed using the ARDL Bound testing and the Parsimonious Error Correction Model (ECM) of the ARDL Model to test the relationship and analyze test the effect respectively. The findings revealed that there is no long-run relationship between unemployment rate and economic growth in Nigeria. That is, with effective policies, the long-run increase in unemployment has a growth enhancing mechanism on economic growth which is statistically significant.

Ademola and Badiru (2016) carried out a study on the impact of unemployment and inflation on economic growth in Nigeria for the period of 1984-2014. The general objective was to investigate and determine the effect of unemployment and inflation on economic performance in Nigeria and to establish the relationship between unemployment and inflation with real domestic product in Nigeria. The study adopted the quantitative research design. Secondary data was employed for the study which was sourced from the National Bureau of Statistics, Central Bank of Nigeria Statistical Bulletin and World Bank Data Base. The ordinary least square technique was used to analyze the data. The findings revealed that there exist long-run relationship between real gross domestic product, unemployment and inflation. The result indicated that unemployment and inflation are positively related to economic growth. It was therefore recommended that policy makers should in their effort increase the level of output in the other sectors of the economy in Nigeria by improving on productivity, which would reduce unemployment and the prices of goods and services (inflation) so that Nigerian economy can have inclusive economy growth.

3. METHODOLOGY

3.1 Theoretical Framework (Functional Distribution of Income)

The functional distribution of income deals with the income earned by the factors of production. It concerns itself with the distribution of income to land, labour and capital. The functional distribution theory assumes three classes within the society which are the landowners (those that receive income in the form of rent), the labourers (those that receive money in the form of wages or salaries) and the capitalist (those that receive money in the form of interest). This theory considers how total income or national income is distributed among the factors of production.

The size distribution of income is concerned with the amount of income been received by individuals or households. This theory considers how total income or national income is distributed among individuals or households.

3.2 Types and Sources of Data

Based on the theoretical principles and the review of related literature, the study employed the quantitative research design. The data applied in this study were mainly secondary. They were collected from Central Bank of Nigeria statistical bulletin, National Bureau of statistics, and World Development Indicators. The population of the study involves the citizens of Nigeria that are affected by income inequality. The sample size involves the citizens in Nigeria that are affected by income inequality from the period of 1989-2020. The sampling technique was purposive. The multiple linear regression was used to analyze the data. Therefore, our multiple regression is structured in its implicit form as thus:

$$PCI = f(GINI, POV, INF) \dots \dots \dots [1]$$

Where; *PCI* is Per Capita Income (proxied for Economic Development), *GINI* is Income Inequality Rate (proxied by the gini index), *POV* represents poverty (proxied by the national poverty headcount ratio), and *INF* represents inflation rate as a control variable.

Econometrically the model is specified as:

$$PCI = a_0 + a_1GINI + a_2POV + a_3INF + u \dots \dots \dots [2]$$

Where a_0, a_1, a_2 and a_3 are coefficients, while u is the residual.

Apriori: $a_1, a_2, a_3 < 0$.

The model used for the study presupposes that per capita income (economic development) is a function of income inequality, poverty rate, and inflation rate.

4. RESULTS AND DISCUSSION OF FINDINGS

Table 1: Multiple Regression Result

VARIABLES	COEFFICIENT	T.STAT	PROB.	REMARKS
GINI	-295.4211	-3.675487	0.0032	Significant
POV	-114.9246	-3.193109	0.0077	Significant
INF	-58.66732	-1.978417	0.0713	Not Significant

Source: Researcher's Computation from Eviews 10.0

F.Stat. = 5.193594, **Prob.** (0.015739)

R² = 0.564914, **Adjusted R²** = 0.656143, **Durbin Watson** = 1.908957

Table 2: Multicollinearity Test Result

	PCI	GINI	POV	INF
PCI	1.000000	0.364442	0.135870	-0.247715
GINI	0.364442	1.000000	0.927042	0.005823
POV	0.135870	0.927042	1.000000	-0.076570
INF	-0.247715	0.005823	-0.076570	1.000000

Source: Researcher's Computation from Eviews 10.0

4.1 Hypotheses Testing

Hypothesis One (H₀₁): Gini coefficient does not have a significant impact on per capita income in Nigeria.

From Table 1, the slope of regression for gini coefficient variable was -295.42. This implies a negative relationship between gini coefficient and per capita income. An increase in gini coefficient by one percent would lead to a decrease in per capita income by 295.42 percent. The t-statistics for gini coefficient variable was -3.67 with its associated probability of 0.0032. Since this probability is less than the alpha level (0.05) which is required to uphold/ reject the null hypothesis, we therefore reject the null hypothesis and accept the alternative hypothesis that gini coefficient have a significant impact on per capita income in Nigeria.

Hypothesis Two (H₀₂): Poverty rate does not have a significant impact on per capita income in Nigeria.

From Table 1, the slope of regression for poverty rate variable was -114.92. This implies a negative relationship between poverty rate and per capita income. An increase in the poverty rate by one percent would lead to a decrease in per capita income by 114.92 percent. The t-statistics for poverty rate variable was -3.19 with its associated probability of 0.0077. Since this probability is less than the alpha level (0.05) which is required to uphold/ reject the null hypothesis, we therefore reject the null hypothesis and accept the alternative hypothesis that poverty rate have a significant impact on per capita income in Nigeria.

Hypothesis Three (H₀₃): Inflation rate does not have a significant impact on per capita income in Nigeria.

From Table 1, the slope of regression for unemployment rate -58.66. This implies a negative relationship between inflation rate and per capita income. An increase in inflation rate by one percent would lead to a decrease in per capita income by 58.66 percent. The t-statistics for inflation rate variable is -1.97 with its associated probability of 0.0713. Since this probability is more than the alpha level (0.05) which is required to uphold/ reject the null hypothesis, we therefore reject the alternative and accept the null hypothesis which states that inflation rate does not have a significant impact on per capita income in Nigeria.

The findings on Table 1 also shows that the coefficient of determination (R^2) for the model was 0.564914, which reveals that gini coefficient, poverty rate and inflation rate accounts for 56.49% of the systemic variation in per capita income (economic development) in Nigeria for the period of study (2005-2020), while the adjusted (R^2) of 0.656143 implies that the model accounts for 65.61% of the variation in per capita income (economic development). The overall significance of the parameter estimates shows that the overall model was significant at the five (5) percent level since the observed

F-value of 5.193594 had a probability of 0.015739 which is less than the level of significance at 0.05. It therefore indicates a good overall fit of the model.

The Durbin Watson (DW) test for serial correlation as shown on Table 1 reveals the absence of serial correlation in the model. The Durbin Watson test of 1.908957 falls within the values of 1.50 to 2.49, which signifies the absence of positive and negative autocorrelation. It therefore reveals that the model has a high explanatory and predictive power.

On the other hand, the collinearity test on Table 2 shows the correlation matrix result of the variables. The result shows presence of multicollinearity between GINI and POV only, since their correlation coefficient is greater than 0.8. However, since the correlation coefficients of other independent variables are less than 0.8, it shows absence of multicollinearity among them.

4.2 Discussion of Findings

From the analysis above, it would be observed that both gini coefficient, poverty rate and inflation rate had negative signs which implies that an increase in these variables would lead to a decrease in economic development (per capita income). Gini coefficient represents income inequality and as such an increase in the inequality level of income would in no doubt affect the average income of every individual in the economy, both households and production level of mainly small and medium scale enterprises and businesses. This in turn would adversely affect the level economic development in Nigeria in terms of income generation and employment level. The variable of poverty rate has a negative sign which implies that an increase in this rate would result to a decrease in economic development (per capita income). This may be due to the fact that an increase in poverty level does not imply a better standard of living (economic development). It may also result from the fact that the participation of the poor in production process limits economic development due to their insufficient contribution and non-availability of jobs, hence, reducing the availability of income on every household and citizen of Nigeria. The variable of inflation rate has a negative sign which implies that an increase in this rate would result to a decrease in economic development (per capita income). This implies that the cost of living comes as a result of the high inflation rate in Nigeria which in turn, decreases the level of per capita income among the populace in the economy.

5. CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The study is on the impact of income inequality on economic development in Nigeria for the period between 1989 and 2020. The findings of the research concluded that gini coefficient and poverty rate has negative and significant impact on economic development in Nigeria; while, poverty rate also has a negative but insignificant impact on economic development in Nigeria.

5.2 Recommendations

Based on the research problem and the objectives earlier stated, it is therefore recommended that;

The government should direct its policies and programs towards measures that enhance income redistribution. This would reduce the level of inequality and ensure an even distribution of income. This can be achieved by fiscal policies of government aimed at increasing the welfare of the citizens.

The government should move the economy from a mixed economic system to a capitalist system by creating the enabling environment and policies for the private sector to thrive. This would motivate the

capitalist few to invest in the means of production and distribution and also encourage the participation of the poor in the growth process; which in turn would enhance the level of per capita income.

Government should keep the rising inflation rate at single digit, while the creation of government's social investment program should be encouraged to capture more unemployed people, so as to enhance the availability of income on every household and citizen of Nigeria.

REFERENCES

- Adejumo, V. A. & Adejumo, O. O. (2014). Prospects for achieving sustainable development through the millennium development goals in Nigeria. *European Journal of Sustainable Development*, 3(1), 33-46.
- Ademola, A. S. & Badiru, A. (2016). The impact of unemployment and inflation on economic growth in Nigeria. *International Journal of Business and Economic Science Applied Research*, 9(1), 47-55.
- Adinde, S. (2017). The impact of inequality on economic growth: A case study on Nigeria. Published Thesis, retrieved from <https://www.researchgate.net/publication/320410820>.
- Akinbobola, T. O. & Shaibu, M. O. (2004). Income inequality, unemployment and poverty in Nigeria: A vector autoregressive approach. *Journal of Policy Reform*, 7(3), 175-183.
- Akpoilih, R. & Farayibi, A. (2012). Economic growth and inequality in Nigeria: Magnitude and challenges. *MPRA Paper No. 74156*, <https://mpra.ub.uni-muenchen.de/74156/>
- Akutson, S., Messiah, A. J. & Araf, Y. D. (2018). The impact of unemployment on economic growth in Nigeria: An application of Autoregressive Distributed Lag (ARDL) Bound Test. *Sumerianz Journal of Business Management and Marketing*, 1(2), 37-46.
- Anghel, M., Anghelache, C. & Manole, A. (2017). The effects of unemployment on economic growth. *Romanian Statistical Review_ Supplement nr.7*.
- Clark, C. (2015). Capital formation in an economy: Meaning, significance and process. Retrieved from <http://www.economicdiscussion.net/capital-formation/capital-formation-in-an-economy-meaning-significance-and-process/12981>.
- Dali, S. (2015). Macroeconomics and development in Nigeria: The restrained ambition of Africa's largest economy. Retrieved from <http://www.afd.fr/webdav/site/afd/Shared/PUBLICATIONS/RECHERCHE/Scientifiques/Macrodev/19-VA-Macrodev.pdf>.
- Gallo, C. (2002). Economic growth and income inequality: Theoretical background and empirical evidence. Retrieved from <https://www.barlett.ucl.ac.uk/dpu/Publications/latest/Publications/dpu-working-papers/WP119.pdf>.
- Idris, A., Thomas, A., & Muhammadkabir, O. M. (2021). The implications of free trade area for poverty, household welfare and economic development in Nigeria. *Journal of Economics and Allied Research*, 6(2), 220-234.

- International Labour Organization (2009). *Labour statistics yearbook*, Geneva.
- Jhingan, M. L. (2003). *Advanced macroeconomics theory*. 11th Edition. Delhi: Vrinda Publication (P) LTD.
- Matthew, A. & Mordecai, B. D. (2016). The impact of public debt on economic development of Nigeria. *Asian Research Journal of Arts & Social Sciences*, 1(1), 1-16.
- Mendes, M. (2013). Inequality and economic growth: An overview of the theory. Available at [ht.tps://www.senado.leg.br/estudos](http://www.senado.leg.br/estudos).
- Nigerian Bureau of Statistics (2010). Nigerian poverty profile. Available at <http://www.nbs.ng>.
- Okafor, H. O. (2016). Economic growth, poverty and income inequality matrix in Nigeria: A further investigation. *Central Bank of Nigeria Economic and Financial Review*, 54 (1), 25-42.
- Olayemi, A. O. (2012). Effects of family size on household food security in Osun State, Nigeria. *Asian Journal of Agriculture and Rural Development, Asian Economic and Social Society (AESS)*, 2(02), 1-7.
- Olowu, D. I., Ichoku, H. E., & Nwosu, E. O. (2018). Spatial distribution of poverty in multiple dimensions in Delta State of Nigeria. *Journal of Economics and Allied Research*, 2(2), 32-44.
- Oriakhi, M. O. (2021). Poverty reduction, government expenditure and economic growth in Nigeria. *Journal of Economics and Allied Research*, 6(2), 282-297.
- Oyekale, T. O., Bayedo, O. P., & Olugbire, O. O. (2021). Determinants of poverty status among farming households in Odogbolu local government area, Ogun state. *Journal of Economics and Allied Research*, 6(1), 38-50.
- Zhattau, V. S. (2013). Fiscal policy as an engine of economic growth in Nigeria. *International Journal of Arts and Humanities, Bashir Dar Ethiopia*, 2(2), 6.