# Socio-Economic Infrastructure and Standard of Living in Nigeria

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***Abstract***

*This study investigated the effect of socio-economic infrastructure on the standard of living in Nigeria for the period 1981–2021. The study used per capita income as a proxy for standard of living, while investments in health, education, telecommunications, and electric power supply were used as infrastructure. The exchange rate entered the model as a control variable. Annual time series data were obtained from secondary sources including the CBN annual statistical bulletin, and World Bank development indicators. The Eview10 Statistical Software was employed to analyze the data empirically. Due to the stationarity condition of the time series data, the study adopted the autoregressive distributed lag (ARDL) model to ascertain its objectives. The study revealed that, in the short run, the coefficient of electric power supply has a positive effect on standard of living and is significant, while in the long run, the coefficient of telecommunication infrastructure has a positive influence on standard of living and is significant. The study concludes that the place of power supply and communication cannot be undermined as Nigeria plans for sustainable economic growth and development. Therefore, it was recommended that there be a deliberate attempt to improve the quality of health care and education. Secondly, the federal government should see the provision of electric power and the reduction in airtime and internet data as the main drivers of the standard of living in Nigeria.*

***Key Words:*** *Socio-Economic Infrastructure, Standard of Living, Nigeria, ARDL*

## INTRODUCTION

Infrastructure is the foundation for a variety of activities that play a critical role in determining the standard of living in many countries. According to the UNDP (2008), infrastructure is a broad term that can be classified into four essential components, such as energy, transportation, telecommunications, and the environment. There are two types of infrastructure: economic infrastructure and social infrastructure. Economic infrastructure is a set of essential services that help in the growth of a country's economy, and it includes roads, communications, sewage, water, airport power, etc., while social infrastructure includes schools, affordable housing, hospitals, etc.

In Nigeria, the provision of socio-economic infrastructure is in short supply, and this is posing a threat to the country's economic growth and survival. Infrastructure is currently the most challenging factor hampering the country's efforts to achieve long-term economic and social development. Inadequate and deteriorating infrastructure is a problem since it stifles growth. Recently, the Nigeria Poverty Assessment 2022 by Nasir (2022) reported that 4 in 10 Nigerians live below the national poverty line. Many Nigerians, especially in the northern region, lack education and access to basic infrastructure, such as electricity, safe drinking water, and improved sanitation. According to the NBS (2018), Nigeria is one of the countries with the highest level of unemployment and income inequality in the world. In recent times, the unemployment rate has climbed consecutively from 13.30% in the second quarter of 2016 to 18.80% in the third quarter of 2017, which is up from 16.20% in the second quarter of 2015. A recent survey showed the rate of unemployment had climbed to 19.70 percent in 2018. The unemployment rate is expected to be 32.5 percent in 2021. In 2022, the unemployment rate in Nigeria is estimated to reach 33 percent. With the above, there seems to be a challenge in the path to economic development in Nigeria, and to address this dreaded problem, there is a need to investigate the effect of socio-economic infrastructure on economic development.

The importance of socio-economic infrastructure on living standards has been noted as nations grow from one stage of development to the next. This exposition is based on the fact that the provision of social and economic infrastructure such as roads, highways, markets, airports, seaports, electricity, schools, libraries, universities, clinics, hospitals, courts, museums, theaters, playgrounds, parks, fountains, and statues is a critical determinant of a nation's growth and development. The deficiencies of the aforementioned amenities have hindered economic development in recent history. To improve the standard of living of Nigerians through the provision of sustainable infrastructure, frantic efforts have been made by successive governments. These actions include policy and institutional reforms, capital expenditure programs for rehabilitation and new capacity, and increased resource allocations for maintenance of these facilities. Also, it provides options for financing the proposed program, with a special focus on the efficient and sustainable use of oil revenues for infrastructure development. Although the country's living standard is still lower than many countries in Africa, the proportion of Nigeria’s population truly living in abject poverty increases annually. Little wonder Nigeria became the poverty capital of the world in 2018, with 86.9 million people living below the international poverty level of $1.90 in PPP terms per day in Okagba (2019).

However, there has been scholarly research on the impact of infrastructure on economic growth, with a variety of causations. For instance, Röller & Waverman (1996), Kaupa (2015), Ogbaro and Omotoso (2017), all have positive and statistically significant effects on the rural economy. The outcomes of growth studies that include measures of public capital stocks or infrastructure spending flows are more mixed than those that do not. Also, none of these studies reviewed were able to look into the institutional environment that regulates the allocation and execution of funds for infrastructural development in Nigeria. Hence, a vacuum in research is in existence.

Against these backdrops, this study attempts to address them by critically investigating the influence of socioeconomic infrastructure on the living standard in Nigeria for the period 1996–2020.

## LITERATURE REVIEW

### Conceptual clarification

**Infrastructure:** The Cambridge Dictionary defined infrastructure as "the key systems and services that a country or organization requires to function correctly, such as transportation and electricity supplies" (Cambridge, 2010). According to Van Dale, infrastructure is "the entire network of roads, railroads, rivers, ports, airports, electric equipment, cables, and so on" (Van Dale, 2010). When discussing infrastructure, physical infrastructure such as roads, bridges, trains, airports, and water and sewer systems is commonly mentioned. In social aspects, differences occur. Some sources consider hospitals, schools, prisons, and government buildings to constitute infrastructure in addition to physical infrastructure. According to Gustáv (2005), infrastructure is classified into three types: physical, economic, and policy access. Physical access to infrastructure that allows the movement of people, goods, and information, such as highways and telephones, is referred to as physical access. Economic access is concerned with infrastructure that facilitates money transfer and business, such as banking services, whereas policy infrastructure is concerned with policy frameworks that drive other systems.

Gramlich (1994), defined economic infrastructure as big, long-standing structures such as transportation, electricity, communications, and utility networks that enable economic activities. Municipal, housing, education, health, justice, and recreational assets all contribute to human growth, quality of life, and living standards. Snieska & Simkunaite (2009), separate two forms of infrastructure, such as economic infrastructure and social infrastructure. Examples of economic infrastructure are roads, highways, trains, airports, seaports, power, telecommunications, water supply, and sanitation, while social infrastructure includes schools, libraries, universities, clinics, hospitals, courts, museums, theaters, playgrounds, parks, fountains, and statues.

### Standard of Living

A standard of living is the level of income, comforts, and services available, generally applied to a society or location rather than to an individual. The standard of living is relevant because it is

considered to contribute to an individual's quality of life. The standard of living is the material well-being of the average person in a given population. It is typically measured using gross domestic product (GDP) per capita. Factors that determine a standard of living include income, physical health, quality of the environment, housing availability, life expectancy, personal safety, and access to education, medical facilities, and social services. Real GDP per capita and Gross National Income per capita are the two most common ways to measure the standard of living. In this study, the standard of living is measured by the per capita income of the people, which is calculated by dividing the national income by the total population.

**Socio-Economic Infrastructure and Standard of Living**

Development of infrastructure not only leads to growth, but growth also contributes to economic development, creating a virtuous circle (Ndulu, 2006). Furthermore, human capital and infrastructure investments interact, with each improving the returns to the other. DFID (2002) highlighted the following avenues via which infrastructure investment might contribute to long-improvement in the standard of living: Reducing transaction costs and facilitating intra- and cross-border trade flows; enabling economic actors—individuals, businesses, and governments—to respond to new sorts of demand in new locations; reducing the cost of inputs for entrepreneurs or increasing the profitability of current firms; Creating jobs, including in public works (as a kind of social security as well as a counter-cyclical strategy in times of crisis); Improving environmental conditions, for example, leads to better livelihoods, better health, and less vulnerability among the poor. Calderon (2009) discovered that infrastructure development contributed 99 basis points to per capita economic growth in Africa from 1990 to 2005, compared to only 68 basis points for other structural measures.

**Theoretical Literature**

Doctrine of Unbalanced Growth

This study is anchored on the doctrine of unbalanced growth as was propounded by Hirschman in 1961. According to the theory, the less developed countries (LDCs) does not have enough resources to invest in all areas of the economy at the same time. According to Hirschman (1961), development can only come through a chain of disequilibria that must be kept alive and that to keep the economy moving forward, development policies must maintain tension, disproportion, and disequilibrium. This is in recognition of the inter-relatedness of different economic activities as was put together by Nurkse (1984). According to the theory, convergent investment series appropriate more external economies than they produce, whereas divergent investment series create more external economies than they appropriate. Comparatively, investment in selected industries or sectors would improve the living standard of the people.

In support of the unbalanced growth theory, scholars such as Jhinghan (2011), and Rostow (1959), asserted that development strategy should try to prevent a converging series of investments and promote divergent series. According to Singer (1999), the theory of unbalanced growth is a realistic theory and it suggests appropriate utilisation of the scarce resources in less developed

countries. Rostow (1959) is of the view that the strategy of unbalanced growth generates economies of large-scale production. While, Higgin (1985) is of the view that, deliberate unbalancing of the economy in accordance with a pre-designed strategy is the best way to achieve economic growth. Therefore, for development to occur, a purposeful strategy of unbalancing the economy must be implemented, and this may be accomplished by investing in either social overhead capital (SOC) or directly productive activities (DPA

The relevance of this theory to the study of the effect of socioeconomic infrastructure on living standard in Nigeria is based on the fact that Nigeria lacks the resources and manpower required for a balanced growth strategy, and we believe that an unbalanced growth strategy is what is needed to stimulate economic growth or standard of living in Nigeria.

**Empirical Review**

Owolabi-Merus, (2015) examined the impact and significance of infrastructure development on the economic growth of a country cannot be overemphasised. This is because it is a major component that is required to ensure an increase in domestic productivity and attract foreign direct investment (FDI) inflow. This study, through the use of Ordinary Least Squares and Granger Causality econometric techniques, investigates the infrastructural development and economic growth nexus in Nigeria. The former is proxied by Gross Fixed Capital Formation (GFCF), while the latter is proxied by Gross Domestic Product (GDP). The period under review is from 1983 to 2013, and the data for this study is obtained from the World Bank's Africa Development Indicators. The empirical results from this study reveal that infrastructural development has a positive and statistically significant impact on Nigeria's economic growth. However, the Granger Causality test connotes that there is no mutual correlation between both variables in Nigeria in the period under review. Palei (2015) examines the degree of the influence of infrastructure on national competitiveness. The study also attempts to identify and discuss the key infrastructure factors that determine national competitiveness, which in turn influence positively the total results of industrial policy. The findings from the study showed that national competitiveness is influenced basically by the level of institutional development and other seven factors, including infrastructure, that in turn is determined mainly by the quality of roads, railroad infrastructure, air transport, and electricity supply

Ogbaro & Omotoso (2017), examine the role of infrastructure development in promoting economic growth in Nigeria over the period 1980–2015. A Cobb-Douglas production function which model's infrastructure as a stock variable is specified and estimated using the ordinary least squares method. The study finds positive and significant effects of total air transport infrastructure, communication infrastructure, power infrastructure, and total rail lines on economic growth with estimated elasticities of 0.035, 0.016, 0.141, and 0.132, respectively. The study recommends that it will be worthwhile for the Nigerian government and policymakers to implement policies geared towards the development of infrastructure. Also, since the government cannot do it alone, an enabling environment should be created to encourage public-private partnerships in infrastructure development.

Ahuja & Pandit (2020), re-examine the relationship between public expenditure and economic growth using a more copious panel data set covering 59 countries in 1990–2019. The empirical results confirm the unidirectional causality between economic growth and government expenditure, where the causation runs between public spending and GDP growth. The results at large support the Keynesian framework that asserts the importance of government expenditure in stimulating economic growth. Further, the analysis reveals that after considering all the control variables such as trade accessibility, investment, and inflation, public spending positively affects economic growth. With regards to control variables, it was found that investment has a significant and positive bearing on economic growth. Evidence from the regression estimates further demonstrates that trade openness encourages evolution in developing countries. However, population growth and unemployment have a detrimental effect on economic growth.

Saheed & Obianuju (2021), examined the effect of the socio-economic infrastructure of the rural areas on the rural economy in Kaduna State. The study adopts a correlation analysis, a multicollinearity test, and Cronbach's Alpha Reliability tests as well as regression analysis on primary data. Findings from the study reveal that there is a positive relationship between socioeconomic infrastructure and the rural economy, while the multicollinearity test shows an absence of high correlation among the independent variables and the Cronbach Alpha confirms internal consistency of the variables. Furthermore, the regression analysis indicates that socio-economic infrastructure, particularly roads, electricity supply, market, and telecommunication infrastructure, all have positive and statistically significant effects on the rural economy. The paper, therefore, recommends that governments increase efforts towards developing infrastructure in the rural areas in order to facilitate the growth of the economy in these sectors.

Research Gap

The study of the effect of socio-economic infrastructure in Nigeria for the period of 1981 to 2021 is timely and desirable at a time when the nation seeks improvement in its standard of living. The study is anchored on theory, and many empirical papers were reviewed. In the reviewed literature, it was established that Owolabi-Merus (2015), Palei (2015), Ogbaro and Omotoso (2017), Ahuja and Pandit (2020), Saheed and Obianuju (2021), all have positive and statistically significant effects on the rural economy. In Nigeria, the macroeconomic environment is critical to the performance of all forms of infrastructure, and the majority of the study didn’t consider the place of macroeconomic variables like the exchange rate. The exchange rate of the dollar to the naira is key to the nation's success since its appreciation causes a decline in production and severe inflation in the long run. Hence, this study investigates the influence of socio-economic infrastructure on the standard of living in Nigeria with time series data sourced from the Central Bank of Nigeria statistical bulletin and the World Development Indicators publication of the World Bank.

## METHODOLOGY

### 3.1 Research Design

This study will adopt an expos-facto research design in investigation socioeconomic infrastructure and economic development relationship in Nigeria. This research design will make use of already established information to infer economic meaning in real-life situation. The significance of such type of research design is premised on its ability to give near accurate information on the subject matter.

### Model Specifications

The model for the study is adapted from the work of Palei (2015), who observed that the competitiveness of a nation is influenced majorly by the level of its institutional development and the state of its infrastructures. The level of the infrastructure itself is determined by the quality of roads, railroad infrastructure, air transport, and electricity supply. Based on his findings, the model is represented thus:

Y = f(Ifr) ……..….. (1)
Ifr = f(RN, Rr, AT, ES) …… (2)

Substituting equation (2) in equation (1):

Y = f(RN, Rr, AT, ES) ……...(3)

Where: Y = Global Competitiveness Ifr = Infrastructur

aRN = Road Network

Rr = Railroad

AT = Air transport

ES = Electricity Supply. In the context of this study, the competitiveness of a nation is substituted for rural economy and in line with the objective of the study, the model is therefore modified thus:

The functional form of the relationship in model one will be expressed as follows:

PCI= F(EPI, HEI,EDI,TCI,EXR)

The econometric form of the model will be represented as:

$$\mathbf{PCI_t = \beta_0 + \beta_1 log(EPI)_t + \beta_2 log(HEI)_t + \beta_3 log(EDI)_t + \beta_4 log(TCI)t + \beta_5 EXRt + \mu t}$$

Where:

PCI= Per Capita Income

HEI= Health Infrastructure

EDI= Education infrastructure

EPI= Electricity Power Infrastructure

TCI= Telecommunication Infrastructure

EXR= Exchange Rate

α and β are parameters of the unknown coefficients.

$B_1, \beta_2, \beta_3, \beta_4, > 0$ while $\beta 5 < 0$

The apriori expectation is that, increase in any of the independent variables except exchange rate will have a positive effect on the dependent variables.

Description of Variables

Dependent Variable

Per Capita Income:
Analysis of Result

Stationarity Test

| | LEVEL | | FIRST DIFFERENCE | | |
|---|---|---|---|---|---|
| | T.stat | Crt. Value | T.stat | Crt. Value | REMARKS |
| LOG(PCI) | -0.377814 | -2.938987 | -4.011370 | -2.941145 | I(1) |
| LOG(EPI) | -4.015601 | -3.529758 | - | - | I(0) |
| LOG(EDI) | -2.462593 | -3.529758 | -13.83764 | -3.533083 | I(1) |
| LOG(HEI) | -3.038621 | -3.529758 | -21.68058 | -3.533083 | I(1) |
| LOG(TCI) | -2.105277 | -3.529758 | -11.34239 | -3.533083 | I(1) |
| LOG(EXR) | -1.420492 | -3.529758 | -5.689892 | -3.533083 | I(1) |

Source: Authors Compilation

The table above presents the stationarity test for the study of the effect of infrastructural development on economic growth in Nigeria for the period spanning from 1981 to 2021. The test statistics show that all the variables became stationary after they were subjected to their first differencing, except electric power infrastructure (EPI). This implies that electric power infrastructure is reverting to its values, while orders are not. In line with Box and Jenkins's (1970) assertion, time-series data are stochastic in nature and may exhibit non-stationarity most of the time. To achieve stationarity, researchers will need to divide the time series data. As a result, the difference needed to gain stationarity after the first difference was one of the other variables in this study.

Bounds Cointegration Test

Null Hypothesis: No long-run relationships exist

| Test Statistic | Value | K |
|---|---|---|
| F-statistic | 5.348287 | 5 |

Critical Value Bounds

| Significance | I0 Bound | I1 Bound |
|---|---|---|
| 10% | 2.26 | 3.35 |
| 5% | 2.62 | 3.79 |
| 2.5% | 2.96 | 4.18 |
| 1% | 3.41 | 4.68 |

Inferences drawn from Table 3 show that the f-statistical value of 5.348287 is greater than the upper bound critical value of 3.79 at 5 percent. Therefore, we reject the null hypothesis of no long-run relationship and accept the alternative hypotheses of the existence of a long-run relationship. By implication, there is a long-run cointegration among the series in the hypotheses, and in the long run, there will be convergence. Since there is a long-run association, we then proceed to ascertain their long-run and error-correction regressions.

Error Correction Regression:

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| DLOG(EPI) | 0.190837 | 0.065856 | 2.897787 | 0.0079 |
| DLOG(EPI(-1)) | -0.122897 | 0.048835 | -2.516594 | 0.0189 |
| DLOG(EDI) | -0.032855 | 0.029742 | -1.104695 | 0.2802 |
| DLOG(EDI(-1)) | -0.019893 | 0.010916 | -1.822363 | 0.0809 |
| DLOG(HEI) | 0.020382 | 0.030885 | 0.659932 | 0.5156 |
| DLOG(TCI) | 0.012163 | 0.010979 | 1.107791 | 0.2789 |
| DLOG(EXR) | -0.021238 | 0.023867 | -0.889863 | 0.3824 |
| DLOG(EXR(-1)) | 0.061131 | 0.030349 | 2.014304 | 0.0553 |
| CointEq(-1) | -0.425018 | 0.119066 | -3.569601 | 0.0016 |

Cointeq = LOG(PCI) - (0.7545*LOG(EPI) + 0.0011*LOG(EDI) + 0.0480
*LOG(HEI) + 0.0747*LOG(TCI) -0.1249*LOG(EXR) + 4.2293
)

| | | | |
|---|---|---|---|
| R-squared | 0.887526 | Mean dependent var | 7.460889 |
| Adjusted R-squared | 0.880769 | S.D. dependent var | 0.247239 |
| S.E. of regression | 0.034286 | Akaike info criterion | -3.630868 |
| Sum squared resid | 0.028212 | Schwarz criterion | -3.027547 |
| Log likelihood | 82.98649 | Hannan-Quinn criter. | -3.416211 |
| F-statistic | 146.1559 | Durbin-Watson stat | 1.828419 |

| | |
|---|---|
| Prob(F-statistic) | 0.000000 |

*Note: p-values and any subsequent tests do not account for model selection.

The R-square value is 0.887526, while the adjusted R-square value is 0.880769. This implies that about 88 percent of the variation in economic growth in Nigeria is associated with the interplay of variables in the model, while the remaining 22 percent is captured in the error term. The Durbin-Watson statistic value of 1.828419 indicates the absence of first-order autocorrelation in the residual of the series. The error correction term -0.425018 appeared with the normal sign negative, and its statistical significance is 5 percent. By implication, the past disequilibrium will herald a long-run equilibrium at a rate of 42 percent annually.

In the short run, the coefficient of the contemporaneous values of electric power infrastructure (EPI) and its first-year lag value have a positive and negative influence on the dependent variable (per capita income), and they are insignificant at 5% since their probability values of 0.0079 and 0.0189 are less than the threshold of 0.05. Therefore, an increase in electric power infrastructure will, all things being equal, amount to a 0.190837 increase and a 0.122897 decline in the short run. The short-run instability in the influence of electric power infrastructure in Nigeria connotes that the forces of demand and supply are not allowed to determine the market. In the short run, the coefficient of education infrastructure and its lag values have a negative effect on the dependent variable, but they are not significant at 5%. Also, the coefficients of health infrastructure and telecommunication infrastructure have a positive influence on the dependent variable, but they are not significant at 5% in the short run. Similarly, the coefficient of the exchange rate and its lag value have an unstable effect on the dependent variable, but they are not significant at 5%.

Long Run Result:

Long Run Coefficients

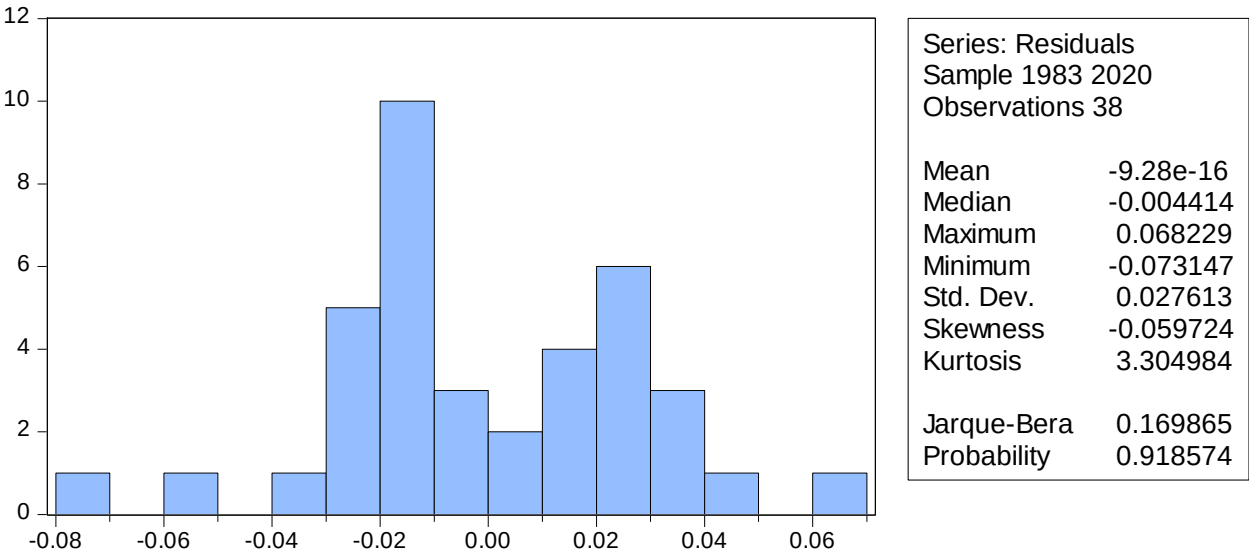
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| LOG(EPI) | 0.754489 | 0.101697 | 7.418992 | 0.0000 |
| LOG(EDI) | 0.001139 | 0.067938 | 0.016772 | 0.9868 |
| LOG(HEI) | 0.047956 | 0.064352 | 0.745204 | 0.4634 |
| LOG(TCI) | 0.074742 | 0.035394 | 2.111751 | 0.0453 |
| LOG(EXR) | -0.124850 | 0.040238 | -3.102812 | 0.0049 |
| C | 4.229320 | 0.450822 | 9.381344 | 0.0000 |

Source: Authors compilation

In the long run, the coefficient of electric power infrastructure has a positive influence on the dependent variable and is significant at 5%. Therefore, a percentage increase in electric power infrastructure will amount to a 0.754489 (75%) increase in economic growth in Nigeria. This

exposition is consistent with economic theory and is imperative for policymaking. The magnitude of the parameter shows that electric power supply is key to economic growth in Nigeria over the study period. While the coefficient of education and health infrastructure has no significant effect on the dependent variable, an increase in telecommunication infrastructure has a positive influence on the dependent variable at a tone of 0.074742 when the appreciation of the exchange rate of the dollar to the naira amounted to a 0.124850 reduction in economic growth in the long run.

Post Estimation Test:




In testing the validity of regression, researchers check the normality of the regression residual. This post-estimation test will allow the researcher to determine whether the estimated equation is consistent with the basic assumption of the ordinary least squares. Given the value of the Jarque-Bera statistic of 0.169865 and its probability value of 0.918574, we assert that the residuals are normally distributed.

Breusch-Godfrey Serial Correlation LM Test:

| | | | |
|---|---|---|---|
| F-statistic | 0.534818 | Prob. F(2,22) | 0.5932 |
| Obs*R-squared | 1.761890 | Prob. Chi-Square(2) | 0.4144 |

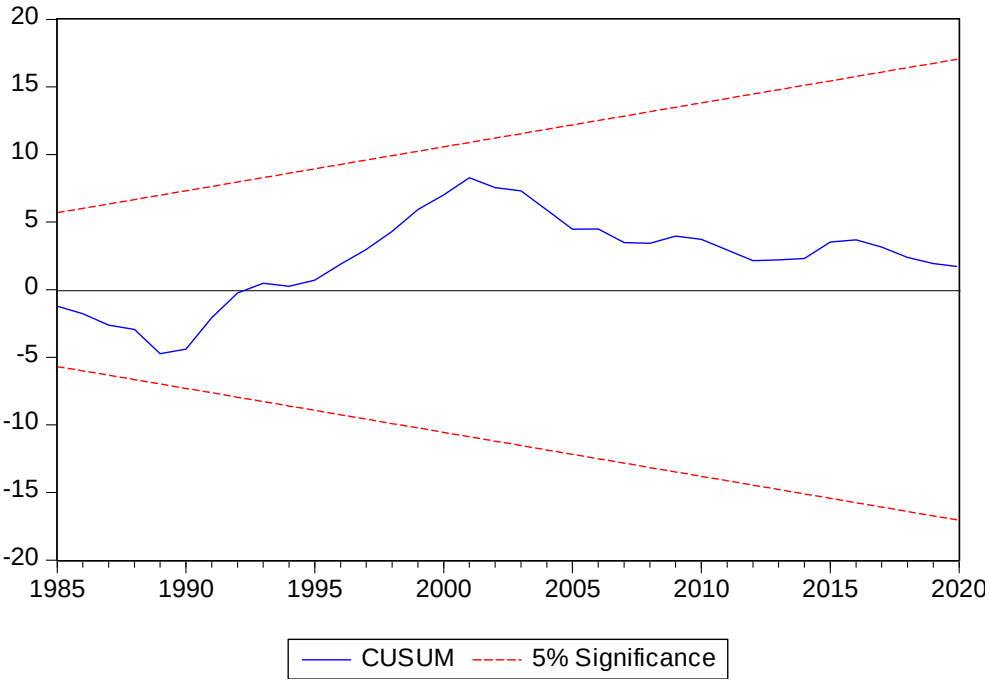
In testing the serial independence of the error term, we employed the Breusch-Godfrey Serial Correlation LM Test. Given the fact that the F-statistic value of 0.534818 and the observed R-square value of 1.761890 are statistically insignificant with probability values of 0.5932 and 0.4144, We assert that there is no evidence of serial correlation in the residual of the study, and we conclude that the estimated equation is blue.

**Heteroskedasticity Test: Breusch-Pagan-Godfrey**

| | | | |
|---|---|---|---|
| F-statistic | 0.374439 | Prob. F(13,24) | 0.9656 |
| Obs*R-squared | 6.407610 | Prob. Chi-Square(13) | 0.9301 |
| Scaled explained SS | 2.945706 | Prob. Chi-Square(13) | 0.9981 |

In testing the equality of the variance of the residual as required by the basic classical least squares assumption, we employed the Breusch-Pagan-Godfrey heteroskedasticity test. This test is the opposite of the homoskedasticity test, and it is valid to ascertain the validity of the classical least squares assumptions. Given the F statistic value of 0.374439, the Obs*R-squared value of 6.407610, and the scaled explained SS value of 2.945706, their respective probability values are 0.9656, 0.9301, and 0.9981. Hence, we conclude that there is evidence of homoskedasticity in the residual, and we conclude that the estimated equation is blue.

Model Stability Test:




The model stability test that was conducted with the cusum test shows that the estimations fall within the 95 confidence interval with approximately 5% error. This implies that the estimated model is stable and the OLS estimate is blue.

## Conclusion/Recommendations

In the estimation of the effect of infrastructural development on the standard of living of Nigerians using the ARDL framework that was proposed by Pesaran, Shin, and Smith in 2001, it was discovered that, among the variants of infrastructure used in the estimation, only electric power supply and telecommunication infrastructure were significant in influencing the standard of living. In the short run, the coefficient of electric power supply has a positive effect on standard of living and is significant, while in the long run, the coefficient of telecommunication infrastructure has a positive influence on standard of living and is significant. This implies that the place of power supply and communication cannot be undermined as Nigeria plans for sustainable economic growth and development. Also, such a causation is that, to improve the standard of living of Nigerians, you need to give them enough electric power and access to telecommunication, and this duo happened to be the beam of modern civilization. The outcome of this study support the findings of scholars like Palei (2015); Ogbaro and Omotoso (2017); Ahuja and Pandit (2020); Saheed and Obianuju (2021); who through an empirical elucidation alluded that, socio-economic infrastructure, particularly electricity supply, market, and telecommunication infrastructure have positive and statistically significant effects on the rural economy. From the estimation given, the following recommendations were made:

i. There should be a deliberate attempt to improve the quality of health care delivery in Nigeria so as to achieve the required quality per capita for economic growth.
ii. There should be an increase in budgetary allocations for education in Nigeria.
iii. The federal government of Nigeria should deregulate the electricity sub-sector and give states the power to generate and sell electricity.
iv. To sustain the long-term effect of telecommunication on the standard of living in Nigeria, efforts should be made to reduce the charges on air time and internet data usage.
v. The federal government should take actions that will reduce the exchange rate of the dollar to the naira.

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