



**International Journal of Economics,
Environmental Development and Society
(IJEEDS)**

PUBLIC SECTOR SPENDING AND STANDARD OF LIVING: EMPIRICAL EVIDENCE FROM NIGERIA

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ABSTRACT

It is generally believed that government spending will bring about improved standard of living of the citizens. However, over the years, the standard of living of Nigerians keeps deteriorating in spite of the significant increase in annual government spending. This study therefore investigated the impact of government expenditure on standard of living in Nigeria. Total government expenditure was disaggregated based on the standard functional classification of government spending on administration, social and community services, economic services, and transfers. Standard of living was measured in terms of the misery index. To conduct the study, the Philips-Perron unit root test, Johansen cointegration test, error correction model (ECM), and Granger causality test were applied on annual time-series for the period 1981 to 2020. The findings indicated that government expenditure on administration significantly worsens the standard of living. Also, government expenditure on social and community services as well as government spending on economic services strongly improve the standard of living while government expenditure on transfers contributes insignificantly to the improvement of the standard of living in Nigeria. The Granger causality test showed unidirectional causality from government expenditure on social and community services to standard of living. The main recommendation is that the government should increase its spending on social and community services, and economic services while there should be drastic reduction in the unproductive aspects of government spending on administration and transfers.

Keywords: Public Sector, Spending, Living Standard, Empirical Evidence.

Reference to this paper should be made as follows:

Amadi, S. O. N., & Korgbeelo, C. (2022). Public sector spending and standard of living: empirical evidence from Nigeria. *International Journal of Economics, Environmental Development and Society*, 3(4), 458-473.

INTRODUCTION

Government intervention in macroeconomic stabilization gained prominence during the Keynesian revolution following the great depression of the early 1930s. Before then, the dominant view was that of the classical economists, which believes that, the market mechanism or the invisible hand (rather than government intervention) would lead to optimal economic efficiency. Thus, following the successes recorded through the application of Keynesian economic doctrine in tackling the great depression, many developing countries began to focus on the role of government intervention in the economy (Johnson et al., 2001, Shaikh, 2009; Backhouse, 2015). Consequently, in most economies of the world today, government intervention occupies a prominent place. Two reasons account for this. The first reason is that government intervention accelerates the process of achieving a nation's broad macroeconomic objectives such as inequality and poverty alleviation, full employment equilibrium, price stability, and enhanced economic growth. The second reason is the market failure argument. Obviously, when the market fails to efficiently allocate resources, there is the need for government intervention to ensure maximum social welfare in the society (Mankiw, 1998; Agbonkhese & Asekome, 2014).

In Nigeria, during the colonial era and up to the first post-independence decade, the role of government was confined to the traditional functions of maintenance of law and order, national defence, administration, etc., However, in 1970, government involvement in the economy came to prominence when the government revealed its intention to occupy the commanding heights of the economy (Anyanwu et al., 1997). From then on, the Nigerian government has shown active involvement in the economy especially, in the area of spending. Public sector spending therefore remains a significant avenue through which the government can control the national economy (Frank & Kereotu, 2020).

For the economy to significantly and efficiently contribute to improving the well being and standard of living of the citizens, there is the need for an improvement in the productive capacity of the economy. Such improvement in the country's productive capacity requires improvement in the provision of basic economic and social infrastructure through improved government expenditure. Hence, the importance of government spending in the development process in general, and in enhanced standard of living for the people, in particular, can hardly be over emphasized.

In Nigeria, government spending has been on the upward trend over the years, especially, in the last two decades (Onifade et al., 2020). However, the economy has been experiencing dwindling growth rates, sluggish development, deteriorating standard of living, etc., particularly, beginning from the oil glut of the early 1980s (Ekpo & Umoh, 2013). This appears to negate the idealized positive relationship that is expected to exist between government expenditure and standard of living. Nevertheless, it is only an empirical study of this nature that can actually determine the impact of government expenditure on standard of living in Nigeria. It is against this backdrop that this study examined the impact of government expenditure on standard of living in Nigeria.

CONCEPTUAL CLARIFICATIONS

Public Sector Spending

Public sector spending or government expenditure refers to the total amount of money spent by the Federal Government of Nigeria in a year. It is made up of both recurrent and capital expenditure. For the purpose of this study, government expenditure is disaggregated based on the standard functional classification of government spending in Nigeria. This classification includes both recurrent and capital expenditure on administration, social and community services, economic services, and transfers (Central Bank of Nigeria, 2021).

Standard of Living

The standard of living is a concept used to describe the level of income, necessities, luxury, and other goods and services that are readily available to an average person in a society. The most common parameter used in measuring standard of living is the per capital income measured in terms of per capital gross domestic product or per capital real gross domestic product. However, for the purpose of this study, standard of living is measured in terms of the misery index.

The misery index is an economic indicator that determines how the average citizen is doing economically. The original misery index was developed by Professor Arthur Okun of Yale University in the 1970s. Okun's misery index was calculated by simply adding up the nation's inflation and unemployment rates. The original misery index developed by Okun has undergone some modifications over the years. The first modification took place in 1999 by Robert Barro. To create his misery index, Barro added interest rate to the sum of inflation and unemployment rates. John's Hopskins' University economist, Hanke later improved on Barro's misery index. Hanke's annual misery index is therefore the latest version of the misery index and it is the one used for this study. It is defined as the sum of unemployment, inflation and bank lending rates minus the growth rate of per capita real gross domestic product (Kenton, 2018).

Theoretical Literature Review

Some theoretical propositions related to government expenditure are briefly reviewed in this section. The classical school of thought is the earliest economic doctrine that explains the role of the government in the economy.

To the classical economists, government expenditure, especially when financed by debt, is largely offset by the crowding-out effect on private sector investment and by extension lowers the level of macroeconomic performance. This view of the classical economists is based on the assumption of full employment. Obviously, if the economy is already at full employment equilibrium (as determined by the economy's aggregate production function) any increase in government spending financed by debt or money creation, is expected to result in inflationary pressure (Dewett, 2009).

Keynesian economics believes in high level of government intervention in the economy through government expenditure, and other fiscal measures. The Keynesians see the economy as inherently unstable and needs to be stabilized through active government intervention (Anyanwu, 1993). According to Keynes, the classical assumption of full employment is unrealistic. If the economy is operating at less than full employment level, so that output gap exists in the

economy, increased public spending will lead to expansion in output and job creation (Jahan et al., 2014). Thus, as an instrument of economic recovery, public sector spending can be used to increase output, create additional jobs, and improve the standard of living of the people (Dewett, 2009).

Adolf Wagner, through his study of some industrialized economies, propounded his law of increasing state activity. According to Wagner, there is an inherent tendency for government activities to increase (both intensively and extensively) as a reflection of total economic activity in the country. Thus, Wagner proposes that government expenditure increases as a reflection of increasing government activity which is due to increasing economic activities in the country (Kiser & Karceski, 2017).

On their part, Peacock and Wiseman (1961) studied the behavior of the British government since 1890. Based on their study, Peacock and Wiseman provided an explanation of the time pattern of public expenditure. According to Peacock and Wiseman, government spending does not increase in a smooth and continuous manner, but in a step-like manner (Henry & Olekalns, 2010). The theory proposed three related effects: the displacement, inspection, and concentration effects (Henrekson, 1990).

Empirical Literature Review

Some of the studies conducted on the impact of government expenditure on economic performance are reviewed in this section.

Agbonkhese and Asekome (2014) found out that total government spending has significant positive impact on GDP in Nigeria. Also, Gukak (2015) and Shuaib et al (2015) in their separate studies showed that government expenditure has strong positive impact on GDP in Nigeria. Abada and Manessah (2020) and Nwosa and Tijani (2020) found that government expenditure has significant negative impact on real GDP and service sector growth respectively in Nigeria. Bappahyaya et al (2020) showed that government recurrent expenditure has significant positive impact on GDP while government capital expenditure has significant negative impact on GDP in Nigeria. Onifade et al (2020) found that government recurrent expenditure has significant negative impact on real GDP while capital expenditure has insignificant positive impact on real GDP in Nigeria. Jeff-Anyeneh et al (2020) established that government recurrent and capital expenditure has significant impact on standard of living (measured in terms of per capita income) in Nigeria. Bowale et al (2020) found that government expenditure on economic services, and social and community services have significant positive impact on per capita income. The study also showed that government expenditure on administration has significant negative impact on per capita income while government expenditure on transfers has insignificant positive impact on per capita GDP. Olonite (2021) established a significant positive impact of government spending on economic services on real GDP and an insignificant negative impact of government transfers on real GDP in Nigeria. Aluthge et al (2021) found strong positive impact of government capital expenditure on GDP, and significant negative impact of government recurrent expenditure on GDP in Nigeria.

From the empirical literature reviewed, it is observed that most of the studies conducted on the relationship between government expenditure and economic performance in Nigeria concentrated on the impact of government expenditure on economic growth measured in terms of either GDP or real GDP. It is only Jeff-Anyeneh et al (2020) and Bowale et al (2020) that studied the impact of government expenditure on standard of living in Nigeria. However, Jeff-

Anyeneh et al. (2020) and Bowale et al. (2020) measured standard of living in terms of per capita income. Therefore, the present study differs from the previous studies by measuring standard of living in terms of misery index. As a composite index that measures how the average citizen is doing economically, the misery index is a better measure of standard of living than per capita income. The misery index also incorporates per capita income in its computation.

METHODS

Description of the Variables of the Study

Dependent Variable: The dependent variable for this study is standard of living. It is however proxied by the misery index which is defined as the sum of unemployment, inflation and bank lending rates minus the growth rate of per capita real GDP.

Independent Variables: The explanatory variables for this study is total government expenditure in Nigeria. However, the total government expenditure is disaggregated into the four functional areas of government expenditure as shown below:

- Total government expenditure on administration comprising spending on general administration, defense, internal security and National Assembly;
- Total government expenditure on social and community services which includes government spending on education, health and other social and community services;
- Total government spending on economic services which comprises government expenditure on agriculture, road and construction, transport and communication, and other economic services; and
- Total government expenditure on transfers comprising government expenditure on public debt servicing, pensions and gratuities, Federal Capital Territory (FCT), contingencies/Subventions, etc.

All the components of government expenditure are measured in billions of Naira.

Model Specification

The model for this study is specified based on the Keynesian theory and the analytical model used by Bowale et al (2020) which is expressed as follows:

$$PCI = f(ADM, ECS, SCS, TRSF) \dots \dots \dots (1)$$

Where PCI = Per Capital Income (a proxy for standard of living)

ADM = Government Expenditure on Administration

ECS = Government Expenditure on Economic services

SCS = Government Expenditure on Social and Community Services

TRSF = Government Expenditure on Transfers

The above adopted model was however slightly modified to allow for the inclusion of the variables of this study. Hence, the mathematical form of our model is specified as follows:

$$MI = f(\text{GEAD}, \text{GESCS}, \text{GEES}, \text{GETR}) \dots \dots \dots (2)$$

Where MI = Misery Index (a proxy for standard of living)
 GEAD = Government Expenditure on Administration
 GESCS = Government Expenditure on Social and Community Service
 GEES = Government Expenditure on Economic Services
 GETR = Government Expenditure on Transfers
 f = Functionality Notation

MI is the dependent variable while GEAD, GESCS, GEES and GETR are the explanatory variables.

The ordinary least squares (OLS) multiple regression equation based on the functional model above is specified as follows:

$$MI = \beta_0 + \beta_1 \text{GEAD} + \beta_2 \text{GESCS} + \beta_3 \text{GEES} + \beta_4 \text{GETR} + U \quad (3)$$

Where β_0 is the regression constant, β_1 , β_2 , β_3 , and β_4 are the coefficients of the explanatory variables while U is the error term. All other variables are as earlier interpreted.

Expressing equation 3 in logarithmic form, we have;

$$MI = \beta_0 + \beta_1 \text{Log GEAD} + \beta_2 \text{Log GESCS} + \beta_3 \text{Log GEES} + \beta_4 \text{Log GETR} + U \dots \dots \dots (4)$$

Where Log is the natural logarithm of the variables where applicable

A priori Theoretical Expectations

Based on a priori reasoning, we expect the following signs of the coefficients of the explanatory variables:

$$\beta_1 < 0, \beta_2 < 0, \beta_3 < 0, \beta_4 < 0$$

The implication of the signs is that we expect a negative relationship between each of the explanatory variables and misery index in Nigeria.

Nature and Sources of Data

Annual time – series data covering the period 1981 to 2020 were used for the study. The data are secondary data and were sourced from the Central Bank of Nigeria annual statistical bulletin for 2020 and the Central Bank of Nigeria annual reports and statements of accounts (various years).

Techniques of Data Analysis

Due to the properties of time-series data, particularly the non-stationary property, the analytical procedure was stated with unit root test so as to determine the unit root properties of the time-series. The Philips-Perron unit root test was used in conducting the stationarity test.

Based on the result of the unit root test, the Johansen cointegration test was used to test if there is a long-run relationship between standard of living and government expenditure in Nigeria. The Johansen & Juselius (1990) cointegration approach starts with a Vector Autoregressive (VAR) model of order P which is given as:

$$\gamma_t = A_1 \gamma_{t-1} + A_2 \gamma_{t-2} \dots + A_p \gamma_{t-p} + \beta X_t + \varepsilon_t \dots \dots \dots (5)$$

where γ_t Is a k-vector of non-stationary I(1) variables, X_t is a d-vector of exogenous deterministic variables; $A_1 \dots A_p$ and β are matrices to be estimated, and ε_t is a vector of innovation. Given that most macroeconomic time-series data are non-stationary, the VAR model above is generally estimated in its first difference form. Thus, equation (5) can be re-written as;

$$\Delta \gamma_t = \pi \gamma_{t-1} + \sum r_i \Delta \gamma_{t-1} + \beta X_t + \varepsilon_t \dots \dots \dots (6)$$

$$\text{Where } \pi = \sum_{i=1}^{p-1} A_i - 1 \text{ and } r = \sum_{j=i-1}^{p-1} A_j$$

$$p-1$$

$$i-1$$

To determine the number of cointegrating vectors, Johanson and Juselius (1990) suggested two test statistics. These are the trace and maximum eigen value tests. The trace test tests the null hypothesis of r cointegrating vectors against the alternative hypothesis if n cointegrating vectors while the maximum eigenvalue test tests the null hypothesis of r cointegrating vector against the alternative hypothesis of r+1 cointegrating vectors. The test statistics are computed as follows:

$$\lambda \text{ trace } (r) = -T \sum \text{Log } (1-\lambda_i) \dots \dots \dots (7)$$

$$\lambda \text{max } (r/r+1) = -T \text{Log } (1-\lambda_{r+1}) \dots \dots \dots (8)$$

where T Is the sample size and λ, s are the estimated eigen value from the matrix.

The error correction model (ECM) was used to estimate the short-run regression result. The

ECM model can be formulated as follows:

$$\Delta MI_t = \alpha_0 + \sum_{i=1}^p \beta_i \Delta MI_{t-1} + \sum_{j=1}^p \theta_j \Delta \text{Log GEAD}_{t-1} + \sum_{k=1}^p \pi_k \Delta \text{Log GESCS}_{t-1} + \sum_{i=1}^p y_i \Delta \text{Log GEES}_{t-1} + \sum_{i=1}^p \delta_m \Delta \text{Log GETR}_{t-1} + \lambda \text{ECM}_{t-1} + \varepsilon_t \dots \dots \dots (9)$$

Where α_0 is the constant term; Δ is the first difference operator; Log is the natural logarithm; β_i , O_j , π_k , y_i and δ_m are short-run coefficients; λ is the error correction coefficient while ε_t is the white noise error term. All other variables are as earlier defined.

The Granger causality test was used to test for the presence and direction of causation between the variables. Generally, if the Granger causality is to be conducted between two variables X and Y, the test involves estimating the following pair of regression.

$$X_t = \sum \alpha_i Y_{t-i} + \sum \beta_j X_{t-j} + U_{1t} \dots\dots\dots(10)$$

$$Y_t = \sum_{i=1}^n \lambda_i Y_{t-i} + \sum_{j=1}^n \pi_j X_{t-j} + U_{2t} \dots\dots\dots(11)$$

Where it is assumed that the disturbance terms U_{1t} and U_{2t} are uncorrelated.

PRESENTATION OF RESULTS

The results of the data analysis are presented in this section.

Descriptive Statistics

The results of the descriptive statistics are presented in table 1.

Table 4.1 Descriptive statistics Results

Variable	MI	LOG (GEAD)	LOG(GESCS)	LOG(GEES)	LOG(GETR)
Mean	44.8554	4.721237	4.076196	4.412579	5.372235
Median	40.09000	5.362802	4.807693	5.390944	5.469893
Maximum	95.74000	7.899695	7.413518	7.295206	10.91547
Minimum	17.19000	0.307485	-0.527633	-0.139262	1.350667
Std. Dev.	18.33750	2.556903	2.575294	2.436095	2.256509
Skewness	1.207932	-0.455824	-0.336486	-0.578841	-0.063090
Kurtosis	3.731059	1.763295	1.668250	1.743513	2.460637
Jarque-Bera	9.821719	3.934235	3.710747	4.864982	0.511389
Probability	0.007366	0.139859	0.156395	0.087818	0.774379
Sum	1659.640	188.8495	163.0478	176.5032	214.8894
Sum Sq.Dev	12105.51	254.9724	258.6535	231.4474	198.5816
Observations	40	40	40	40	40

Source: Author's Computation from E-view

From the descriptive statistics results in table 1, the mean values of the variables are 44.85514, 4.721237, 4.076196, 4.412579, and 5.372235 for MI, LOG(GEAD), LOG(GESCS), LOG(GEES) and LOG(GETR) respectively. The standard deviation indicated that MI with a standard deviation value of 18.33750 is the most fluctuating variable while LOG (GETR) with a standard deviation value of 2.256509 is the least fluctuating variable. The Skewness statistic

shows that except MI which is positively skewed, all the other variables are negatively skewed. The Kurtosis statistic shows that except MI that is leptokurtic (its value is greater than 3), all the variables are platykurtic (their values are less than 3). This means that MI is peaked relative to normal distributed while the rest variables are flat relative to normal distribution.

Unit Root Test Result

The result of the Philips-Perron unit root test is presented in table 2

Table 2: Philips-Perron Unit Root Test Result

Variable	Phillips-Perron Test Statistic (At level)	1% critical value	5% critical value	Phillips-Perron Test Statistic (At 1 st Diff)	1% critical value	5% critical value	Order of integration
MI	-2.766995	-3.610453	-2.938987	-9.604774*	-3.615588	-2.941145	I(1)
LOG(GEAD)	-1.485717	-3.610453	-2.938987	-8.155417*	-3.615588	-2.941145	I(1)
LOG(GESCS)	-0.601694	-3.610453	-2.938987	-8.437009*	-3.615588	-2.941145	I(1)
LOG(GEES)	-0.778697	-3.610453	-2.938987	-6.427620*	-3.615588	-2.941145	I(1)
LOG(GETR)	-1.338876	-3.610453	-2.938987	-19.71039*	-3.615588	-2.941145	I(1)

Source: Author's Computation from E-view

Note: *denotes rejection of the null hypothesis of unit root at the 1 percent significance level.

The unit root test result in table 3, Shows that none of the variables are stationary at levels. They are all however stationary at first difference [i.e., I(1)] at the 1 per cent level of significance.

Cointegration Test Result

The cointegration test was conducted using the Johansen cointegration technique. The result of the Johansen cointegration is presented in table 3. The trace statistic and Max-eigen test are the standard test statistics used in interpreting the cointegration test result.

Table 3: Johansen cointegration Test Result

Hypothesized No. of CE(s)	Trace Statistic	0.05 critical value	Prob.**
None*	101.4615	69.81889	0.0000
At most 1*	61.49185	47.85613	0.0016
At most 2*	35.67503	29.79707	0.0094
At most 3	13.39902	15.49471	0.1010
At most 4	3.112832	3.841466	0.0777
Hypothesized No. of CE(s)	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None*	39.96965	33.87677	0.0083
At most 1	25.81682	27.58434	0.0827
At most 2*	22.27619	21.13162	0.0349
At most 3	10.28619	14.26460	0.1938
At most 4	3.112832	3.841466	0.0777

Source: Author's Computation from E-view

Trace test indicates 3 cointegrating equations at the 0.05 level.
 Max-eigen test indicates 1 cointegrating equation at the 0.05 level
 *denotes rejection of the hypothesis at the 0.05 level
 **Mackinnon-Haug-Michelis (1999) p-value

From the Johansen cointegration test result in table 3, the trace test indicates 3 cointegrating equations while the max-eigen statistic indicates 1 cointegrating equation. We can therefore conclude from the result that there exists long-run (equilibrium) relationship between public sector spending and standard of living in Nigeria.

Estimated Long-Run Result

The long-run regression result was obtained from the normalized cointegrating coefficients. The long-run coefficients with their standard errors and t-statistics are presented in table 4.

Table 4: Long-Run Coefficients

MI	LOG(GEAD)	LOG(GESCS)	LOG(GEES)	LOG(GETR)
1.000000	3.423644	-2.653196	-0.456389	-0.329614
S.E	(0.47384)	(0.38208)	(0.18981)	(0.19389)
t-statistic	(7.225317)	(-6.944085)	(-2.404452)	(-1.700005)

Source: Author's Computation from E-view

Note: The figures in the first and second parentheses are the standard errors (S.E) and t-statistics respectively.

The estimated long-run regression result in table 4 indicates that government expenditure on administration has significant positive impact on misery index, government expenditure on social and community services, and economic services have significant negative effects on misery index while government expenditure on transfers has insignificant negative impact on misery index.

Estimated Short-Run Regression Result

The parsimonious error correction model (ECM) or short-run regression result is presented in table 5.

Table 5: Error Correction Model (ECM) Result

Dependent Variables: MI

Variable	Coefficient	Std.Error	t-statistic	Prob.
C	0.206466	0.017990	11.47698	0.0000
LOG(GEAD)	0.013033	0.014804	0.880349	0.3864
LOG(GEAD(-1))	0.010665	0.012801	0.833103	0.4121
LOG(GESCS)	0.026114	0.010841	2.408947	0.0231
LOG(GESC(-2))	0.036406	0.009088	4.005751	0.0004

LOG(GEES)	0.021137	0.008879	2.380514	0.0246
LOG(GEES(-2))	-0.020526	0.008404	-2.442357	0.0214
LOG(GETR)	-0.000378	0.004012	-0.094305	0.9256
LOG(GETR(-1))	0.000135	0.004390	0.030757	0.9757
LOG(GETR(-2))	0.0001984	0.004429	0.447888	0.6578
ECM(-1)	-0.477145	0.109622	-4.352649	0.0002
R-squared	0.954519	Mean dependent var.		0.270029
Adjusted R-Squared	0.937674	S.D. dependent var		0.069245
S.E of regression	0.017287	Akaike info criterion		-5.040508
Sum squared resid	0.008069	Schwarz criterion		-4.566469
Log likelihood	106.7696	Hannan-Quinn criter		-4.871848
F-statistic	56.66553	Durbin-Watson stat		2.117307
Prob(F-statistic)	0.000000			

Source: Author's Computation from E-view

From the error correction model result in table 5, the error correction term is correctly signed with a negative sign and it is also statistically significant at the 0.05 level of significance. With a coefficient of -0.477145, the implication is that about 47 per cent of any disequilibrium in the short-run is adjusted back to long-run (equilibrium) relationship within one year in the current period.

Granger Causality Test Result

The result of the pairwise Granger causality test is presented in table 6

Table 6: Granger Causality Test Result

Pairwise Granger Causality Test

Sample: 1981 2020

Logs: 2

Null Hypothesis	Obs	F-statistic	Prob.
LOG (GEAD) does not Granger Cause MI	38	2.35179	0.1110
MI does not Granger cause LOG(GEAD)		1.41695	0.2568
LOG(GESC) does not Granger cause MI	38	3.25619	0.0512
MI does not Granger cause LOG(GESC)		0.98700	0.3834
LOG(GEES) does not Granger cause MI	38	1.45606	0.2477
MI does not Granger cause LOG(GEES)		0.34687	0.7094
LOG(GETR) does not Granger cause MI	38	1.64854	0.2078
MI does not Granger cause LOG(GETR)		0.51844	0.6002

Source: Author's Computation from E-view

From the Granger causality test result in table 6, it is observed that there is no causality between government expenditure on administration and misery index, between government expenditure on economic services and misery index, and between government on transfers and misery.

However, the result shows the presence of unidirectional causality from government expenditure on social and community services to misery index.

Post–Estimation Tests

The classical linear regression model (CLRM) is based on certain assumptions. It is therefore necessary that the assumptions underlying the CLRM are tested and verified. These assumptions include linearity, homoscedasticity, serial independence, normality and stability. The results of the post-estimation tests and their decisions are presented in table 7.

Table 7: Post Estimation Tests Results

Tests	Value	Prob.	Decision
Linearity (Ramsey Reset) Test			Accept (Model Correctly specified)
t-statistic	3.215652	0.0816	
F-statistic	10.34042	0.0816	
Breusch-Godfrey serial Correlation LM Test			Accept (No autocorrelation)
F-statistic	1.537407	0.2346	
Heteroscedasticity (Breusch-Pagan Godfrey) Test			Accept (Residuals have constant variance)
F-statistic	1.274426	0.2346	
Normality (Jarque-Bera) Test			Accept (Data normally distributed)
F-statistic	0.340974	0.843254	

Source: Author’s computation from E-view

DISCUSSION OF FINDINGS

Our findings from the data analysis are discussed in detail in this section

Long-Run Result

- (i) The estimated long-run coefficients indicated that government expenditure on administration turned up with a wrong positive sign. This means that government expenditure on administration increases or worsens the misery index. The implication is that if government expenditure on administration increases, it will worsen the misery index thereby deteriorating the standard of living. The poor performance of government expenditure on administration may be attributed to government spending on activities that are not productive, for instance, expensive allowances for members of the National Assembly and the luxurious lifestyle of government officials. It may also be attributed to corruption whereby money meant for critical infrastructure are diverted to personal use by government officials. Government spending on administration is significant.
- (ii) Government spending on social and community services turned up with correct negative sign. This means that government expenditure on social and community service reduces the misery index. The implication is that if government expenditure on social and community service increases, it will lead to an improvement in the people’s standard of living. It is also statistically significant at the 0.05 level of significance.

- (iii) Similarly, government expenditure on economic services has a correct negative sign which means that government expenditure on economic services reduces the misery index in Nigeria. This implies that an increase in government expenditure on economic services will lead to a reduction in the misery index and consequently improves the standard of living of the people. It is also significant.
- (iv) Government expenditure on transfers turned up with a correct negative sign indicating that government expenditure on transfer reduces the misery index in Nigeria. The implication of the negative sign of government expenditure on transfers is that an increase in government transfer spending will reduce the misery index and hence, contribute positively to the improvement of the people's standard of living. However, government expenditure on transfers is not statistically significant at the 0.05 level of significance. The insignificant performance of government expenditure on transfers may be as a result of the fact that, during the period under investigation, government transfer payments were largely on debt servicing which does not contribute significantly to the welfare of the people.

Short-Run Result

- (i) The result of the error correction model (ECM) indicated that government expenditure on administration in the current period and its lagged value in period one have insignificant positive impact on misery index. This implies that government expenditure on administration in the current period and its lagged value in period one worsen the misery index and deteriorate the standard of living in an insignificant manner.
- (ii) Government expenditure on social and community services in the current period and its value lagged by two periods have significant positive impact on misery index. This shows that government expenditure on social and community services in the current period and its lagged value in period 2 significantly worsen the standard of living in Nigeria.
- (iii) Government expenditure on economic services in the current period has significant positive impact on misery index. The implication is that government expenditure on economic services in the current period significantly worsens the misery index and hence adversely deteriorates the standard of living in the country. However, government expenditure on economic services lagged by two periods has significant negative impact on misery index. This shows that the lagged value of government expenditure on economic services in period 2 significantly reduces the misery index and strongly improves the standard of living in Nigeria.
- (iv) Government spending on transfers in the current period has insignificant negative impact on misery index. This implies that government expenditure on transfers in the current period insignificantly reduces the misery index and consequently, improves the standard of living in an insignificant manner. On the other hand, lagged values of government expenditure on transfers in periods one and two insignificantly worsen the misery index and standard of living in Nigeria.
- (v) The short-run regression result also showed that the error correction term (i.e. the ECM(-1)) turned up with the right negative sign indicating the adjustment of any short-run disequilibrium to long-run or equilibrium trend. The coefficient of the ECM (-1) variable is -0.477145. This implies that about 47 percent of any disequilibrium in the short-run is reversed back to long-run equilibrium trend within a year in the current period.

- (vi) The coefficient of multiple determination (R-squared) is 0.954519. This implied that about 95 percent of the total variations in the dependent variable can be attributed to the joint influence of the explanatory variables.
- (vii) The adjusted R-squared is 0.937674. An estimated adjusted R-squared of 0.937674 implied that with the introduction of additional explanatory variables in the model, the R-square will decrease from 95 percent to about 93 percent.
- (viii) The F-statistic is 59.66553 with probability (F-statistic) of 0.000000. This implies that the overall short-run regression model is statistically significant at the 0.05 level of significance. Finally, the Durbin-Watson statistic 2.117307. Since the value of the Durbin-Watson is greater than 2, we conclude that the model is not affected by the problem of autocorrelation.
- (ix) The Granger causality test result showed unidirectional causality from government expenditure on social and community services to standard of living while no causality was observed between the other components of government expenditure and standard of living in Nigeria.

CONCLUSION AND RECOMMENDATIONS

Based on the findings from the study, the following conclusions are drawn.

- Government expenditure on administration significantly worsens standard of living in Nigeria;
- Government spending on social and community service significantly contributes to the improvement of standard of living in Nigeria;
- Government expenditure on economic services strongly improves the standard of living in Nigeria;
- Government expenditure on transfers contributes to improved standard of living in Nigeria in an insignificant manner.

Based on the conclusions drawn from the study, the following policy measures are recommended.

- To reduce the negative impact of government expenditure on administration on the standard of living, the government should reduce certain aspects of its expenditure on administration which do not produce any significant beneficial effects on the welfare of the masses. Particularly, the government should reduce its spending on unproductive and luxurious allowances to members of the National Assembly and government officials. The size of the government should be drastically reduced. To achieve this, the number of aides attached to government officials should be reduced and there should be no duplication in government ministries, departments and agencies;
- The government should increase its spending on social and community services, and economic services. Specifically, government should increase budgetary allocation to education, health and other social and economic infrastructure in the country;
- To boost government spending on critical sectors of the economy, there is the need to broaden the fiscal space of the government to be able to generate more revenue. To this end, there is need to diversify government revenue from its present dependence on oil;

- The government should reduce its transfer payments on debt serving while there should be increased government transfer payments to pensions and gratuities, and subsidies on petroleum products and agriculture. This will help to improve the impact of government expenditure on transfers on the people's standard of living;
- There should be fiscal discipline, probity, transparency, and accountability on the part of government officials charged with the responsibility of carrying out government fiscal policies. This will ensure that monies budgeted for the execution of projects and programmes intended to improve the standard of living of the masses are judiciously spent.

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