IMPACT OF GOVERNMENT EXPENDITURE ON INFLATION RATE IN NIGERIA: A DISAGGREGATED ANALYSIS

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Abstract

This study examined the impact government expenditure on inflation rate in Nigeria from 1986 to 2021. The Autoregressive distributed lag (ARDL) model was used to analysze time series data from the statistical bulletin. The results showed that government expenditures on education, health, transports and communications, and pensions and gratuities had significant positive influence on inflation rate in both the short-run and the long-run. In contrast, the results indicated that government spending on agriculture, and roads and constructions exerted positive and significant impact on inflation rate in the short-run but inconsequential in the long-run. On the basis of the findings, the following recommendations were made among others: that government should embrace fiscal discipline in its expenditures by performing quality health service delivery evaluation in the health sector via constitution of committee of inquiry. In so doing, wastage expenditures on medical items can be checkmated and all items acquired utilized for quality health service delivery in the sector; and hence, lower inflation. More so, government should monitor fiscal spending on education through regular visitation to schools and evaluation of performance to ensure that education spending is properly utilized by management authorities in the education sector.

Keywords: Analysis, Disaggregated, Expenditure, Government, Inflation, Impact.

1. Introduction

One of the measures of fiscal policy in any economy is government expenditure. It is a tool used by the government to provide public goods such as education, roads, defence, health as well as power supply, among others (Chioma & Bosco, 2020). In the event of imbalances due to economic problems involving inflation, recession and stagflation, government expenditure is employed to stimulate and stabilize the economy. Theoretically, while consensus is reached among scholars that high inflation negatively affects economic growth, the causes of inflation have remained a subject of debate. According to Tai (2014), the causes and dynamics of inflation can be explained under three approaches including fiscal, finance and monetary approaches. From monetary side, Friedman (1963) saw inflation as a monetary phenomenon.

From the fiscal policy angle, the recognition of fiscal deficit and inflation nexus were not left behind in the discussion of inflation both in the theoretical and empirical domains. In the opinion of Sargent and Wallace (1981) on the fiscal and monetary dominance regimes, fiscal deficit was assumed to have indirect effect on inflation via money creation. Similarly, in the public finance explanation of inflation, Click (1998) and Koreshkova (2006) indicated that revenues determined by money creation are a significant source of total revenue of governments in most part of the developing countries. With increase in revenue from seigniorage by governments in the developing countries, money supply rises leading to high inflation.

Thus, this study probes to explain inflation phenomenon in Nigeria by adopting two of the aforementioned three approaches such public finance and fiscal policy. It, specifically, recognizes

government spending, and investigates the degree at which government variable explains inflation in the economy.

In neoclassical viewpoint, increase in government spending leads to high inflation. In considering full employment assumptions, the neoclassicists believed that a rise in government expenditure brings about economic contraction as resources are shifted from productive private sector to public sector which is viewed as unproductive (Chioma & Bosco, 2020). It further, upheld that politicians and government officials in an attempt to score cheap popularity and ensure continuity in power; sometimes increase government expenditure and investment in unproductive projects or in goods which the private sector can efficiently produce. As a result, output is slowed down given rise to resource misallocation that in turn, occasions high inflation (Ezirim, Mudghalu, and Elike (2010).

In Nigeria, government expenditure has over time been on increase without translating significantly to improved productivity, growth and development as the nation ranked one of the poorest countries in the world. This is justified by the collapse of many industries due to dilapidation of infrastructures such as roads and power supply alongside high unemployment rate. More so, instabilities and poor performance of macroeconomic indicators such as inflation, national savings, balance of payments, and exchange rate are all points to the fact that Nigeria has over time suffered from economic setbacks (CBN 2011).

Inflation in particular, began in Nigeria in the 1960s when government propelled cheap money policy to stimulate economic activities. As a result, interest rates saw a lower rate with the critical sectors of the economy on target. This resulted in monetary expansion with broad money increasing at annual rate basis leading to high inflation (Ezirim, Mudghalu & Elike, 2010).

In the 1970s, oil boom sets in and marked the beginning of fiscal dominance and macroeconomic imbalances in Nigeria as foreign earnings rose rapidly. Given the unanticipated income, government expanded its expenditures in the economy. For instance, the growth rates of government expenditures on education, health, agriculture, roads and constructions, transports and communications, and pensions and gratuities in 1986 stood at 0%, respectively while inflation rate was 5.7% in Nigeria. Furthermore, in 1996, when the government spending growth rates on education, agriculture, transports and communications, and pensions and gratuities jumped to 19.7%, 20.5%, 0.1% and 133.5%, respectively, expenditures on health, and roads and constructions recorded negative growth rates of -4.2%, and -0.64%, respectively while inflation rate rose to 29.3% in the same period. By 2006, when government spending on education further rose to 43.7%, health spending rose to 11.8%, agriculture declined to 9.94%, roads and constructions, and transports and communications spending increased to 12.1% and 22.1%, respectively, and pensions and gratuities decreased to 20.3%; inflation rate fell to 8.2% (CBN, 2021). Similarly, in 2016, when the government expenditures on education growth rate decreased to 4.3%, and health, agriculture, roads and constructions, transports and communications, and pensions and gratuities recorded negative growth rates of -22.1%, -12%, -14.6%, -15.7%, and -11.2%, inflation rate jumped to 15.7%. Lastly, by 2021, when the government expenditures on education, health, agriculture, roads and constructions, transports and communications, and pensions and gratuities indicated negative growth rates of -0.04%, -8.8%, -0.1%, -6.4%, -6.1%, and -0.97%, respectively, inflation rate increased to 16.95% (CBN, 2021).

From the facts above, the trend analyses unveiled that government spending appears to contradict theories of inflation, which postulated a positive relationship between high government spending and inflation rate. In this view, it can be observed that when the government spending variables rises, inflation rate

declines and vice-versa as shown in 2006, 2016 and 2021. Consequently, a rising inflation no doubt erodes real income, reduces purchasing power of household consumers, and recipients and payers of fixed rates of interest resulting to a fall in aggregate demand and living standard of the people. As aggregate demand declines, unintended inventory occurs on the part of firms which slow down production and output, thereby leading to a rise in the prices of goods and services. It is against the above problem that this study examines the impact of government expenditures on inflation rate in Nigeria.

3. Literature Review

3.1 Theoretical Framework

The theoretical framework of this study is anchored on the Adolph Wagner's Law of Increasing State Activities and the Keynesian theory of public spending. These theories provide adequate explanation on the relationship between government expenditure and inflation rate in an economy. The above theories are reviewed below.

2.1.1 Adolph Wagner's Law of Increasing State Activities

Wagner's law published in 1893 was developed by a German political economist, Adolph Wagner. The law came into limelight in consideration of the increasing rate of state activities after empirical analysis on Western Europe at the end of the 19th Century. It was argued that government growth was determined by the quest for increased economic development and industrialization. The Wagner's theory postulated that during process of industrialization, public expenditures, and real per capita income of a nation increases. It cited that the advent of modern industrial society result in rising political pressure for social progress and increased consideration of allowance for social by industry (Chioma & Bosco, 2020). Wagner (1893) identified three major areas of government intervention which include the area of industrialization process in which public activities overwhelms private activities such as increase in administrative and protective duties of the state; social welfare services provision involving hospital, education and power; and lastly, improved industrialization brings about technological change and large firms tends to monopolize. Hence, government tries to offset these effects by providing social and merit goods via increased budgetary ways. This theory is very relevant to this study as it deeply x-rayed the channels through which government expenditures are expanded in an economy.

2.1.2 Keynesian Theory of Public Spending

Keynesian theory of public spending was propounded by John Maynard Keynes in the 1936 as a stabilization tool. The theory had during the Great Depression of the 1930's postulated that output and employment were below their potential level due to insufficient aggregate demand. Keynes (1936) argued that if demand is raised, output and employment would as well be expanded and invariably the economy returns to its potential full employment. Thus, Keynesians believed that full employment is achieved through expansionary fiscal policy.

The theory further postulated that during a period of recession, instead of balance budget, government should decrease tax, increase its spending and adopt deficit budgeting. Therefore, Keynesians contended that this would directly increase aggregate demand in the economy. Contrarily, if during economic boom, if the economy is experiencing a problem of high inflation, a restrictive fiscal policy should be utilized to tackle excessive demand. With this, aggregate demand will fall thereby reducing inflation rate in the economy.

2.2 Empirical Review

Lubo and Bigbo (2021) investigated the effect of public expenditure on inflation in Nigeria from 1981 to 2018 using Co-integration test and Error Correction Mechanism. The variables used in the research include consumer price index, government expenditures on transport and communication, defense, agriculture, education, and health. The study found that government expenditures on transport and communication, defense, agriculture, education and health had negative but insignificant effects on inflation in Nigeria. However, this study did not include government expenditure on roads and construction in Nigeria, hence, the need for this study.

Mohamed, Yanzhi and Chuanzhong (2022) investigated the effect of education spending on inflation in Egypt from 1960 to 2019, using unit root test and the GMM model. The variables used in the study were Education expenditure, per capita income, inflation rate, GDP per Capita, education enrollment, gross fixed capital formation and government consumption expenditure. The study found that inflation had a significant role in explaining education expenditure per student in Egypt. This implies that rising inflation had a deleterious effect on education expenditure. However, taking a critical look at this study, it is observed that inflation was used as explanatory variable while education expenditure employed as independent variable. But in this research, the reverse would be the case.

Etian and Chiedza (2022) investigated the effects of government expenditure on agriculture, consumer price index, annual average rainfall, food import value, and population on agricultural production with a specific focus on government expenditure on agriculture from 1983 to 2019. The study used co-integration test, vector autoregressive model and Granger causality test. The variables modeled in the research were agricultural production, government expenditure on agriculture, consumer price index, average annual rainfall, food import, and population. The results indicated that an increase in government expenditure on agriculture, average annual rainfall, and population increase agricultural production. Contrarily an increase in the consumer price index is detrimental to agricultural production.

Sima (2018) studied the nexus between healthcare spending, economic growth and inflation in G7 countries using panel co-integration analysis from 1995 to 2013. The study employed panel co-integration test and panel Granger causality test. The variables utilized in the research were healthcare expenditure, gross domestic product, consumer price index inflation, and personal consumption expenditure inflation. The results indicated that the CPI inflation had the most effect on healthcare expenditure rather than the personal consumption expenditure.

Nworji and Oluwalaiye (2012) examined the impact of government spending on road infrastructure on economic growth in Nigeria from 1980 to 2009, using the Ordinary Least Square (OLS) method. The variables modeled in the study include gross domestic product, expenditures on defence, Transport and Communication, and inflation rate. The results revealed that transport and communication, and defence spending had a significant impact on economic growth in the economy, while inflation positively but insignificantly influenced economic growth in Nigeria. From the review, it was observed that the study ignored the use of unit roots test which is very essential in econometric research of this type.

2.2.1 Gap in literature

Gap in literature established in this research is basically on location, time scope and methodological gaps. In the location gap, the studies reviewed such as Mohamed, Yanzhi and Chuanzhong (2022), and Sima (2018) were carried out in foreign countries such as Egypt and G7 countries but this study improves on those studies by investigating the impact of government expenditure on inflation rate in Nigeria. For the

time scope, the study found from other studies reviewed on the related topic ended in 2019. These studies includes Lubo and Bigbo (2021)-1981-2018, Mohamed, Yanzhi and Chuanzhong (2022)-1960-2019, Etian and Chiedza (2022)-1983-2019, etc. Hence, this study improves on these studies by extending the time scope to 2021 mainly to capture current realities with respect to the topic.

Furthermore, in the methodological gap, it was discovered from other studies reviewed that scholars such as Lubo and Bigbo (2021) did similar study on this topic by specifying inflation as a function of government spending on transport and communication, defense, agriculture, education, and health. However, this study improved on these studies by adding government expenditures on roads and constructions, and pensions and gratuities due to their importance in the determination of prices of goods and services and aggregate demand in Nigeria, though defence variable is eliminated because of insufficient data.

3 Methods

3.1 Model Specification

The theoretical framework of this study is anchored on the Keynesian theory of public spending. Keynesian theoretical model debates the mechanism which government expenditure affects inflation rate. It believed in expansionary fiscal policy in which taxes is decreased and government expenditure is increased to raise aggregate demand during recession. It also advocated for contractionary fiscal policy when there is economic boom and the economy is experiencing inflation problem (Lubo & Bigbo, 2021).

Considering the above background, Keynesian theoretical model is adopted in specifying the equation expressing the nexus between government spending and inflation in this study. Within this framework, Sargent and Wallace (1981) identified inter-temporal government budget constraint as the cause for fiscal response to keep inflation under control. Hence, the model was given as:

$$sf + sm = b \quad (1)$$

Where, sf is the taxes minus government expenditure; sm is the seigniorage from government supplied fiat currency, and b is principal and interest on debt. This implies that government finances its spending either by tax revenue or through issuing bonds. To model the relationship between inflation and government expenditure in Nigeria, Ojarikre, Ezie and Torka, (2015) used inflation rate as dependent variable, and capital and recurrent expenditures as explanatory variables. Money supply was introduced in the model as a modification. The model was given as:

$$INFL = f(CGS, RGS, MS) \quad (2)$$

Where, INFL = Inflation, CGS = Capital government spending, RGS = Recurrent government spending, and MS = Money Supply.

To capture the interest of this study, the equation 2 is further modified with the government expenditure further disaggregated in addition to elimination of money supply variable given the nature of this study. The model in functional form is shown in Table 3 below:

$$INF = f(GEE, GEH, GEA, GERC, GETC, GEPG) \quad (3)$$

In linear function, the equation is specified thus:

$$INF = \alpha_0 + \alpha_1 GEE + \alpha_2 GEH + \alpha_3 GEA + \alpha_4 GERC + \alpha_5 GETC + \alpha_6 GEPG) + \mu t \quad (4)$$

In logarithm function, the model is expressed as:

$$INF = \alpha_0 + \alpha_1 LGEE + \alpha_2 LGEH + \alpha_3 LGEA + \alpha_4 LGERC + \alpha_5 LGETC + \alpha_6 LGEPG) + \mu t \quad (5)$$

Where, INF = Inflation Rate, GEE = Government expenditure on education, GEH = Government expenditure on health, GEA = Government expenditure on agriculture, GERC = Government expenditure on roads and construction, GETC = Government expenditure on transports and communications, and GEPG = Government expenditure on pensions and gratuities, α_0 = constant term, u_t = error term and α_{is} = parameters of the regression equations.

3.2.1 A Priori Expectation

Theoretically, the study expects all the variables to have positive nexus with inflation rate (INF). The a priori expectation behavior is expressed as: φ1>0, φ2>0, φ3>0> φ4>0, φ5>0, φ6>0.

3.2.1 Estimation Procedure

Unit Root test

Stationarity test is employed to determine the order of integration among the time series by applying the Augmented Dickey-Fuller (ADF) unit root test. The ADF test focuses on rejecting a null hypothesis of non-stationary, if the ADF statistic is greater than the 0.05 critical value. The test would be conducted with or without a deterministic trend (t). The generalized model of the ADF unit root test is specified below.

$$\Delta yt = \alpha_0 + \alpha_1 y_{t-1} + \sum_{n=1}^{n} \alpha \Delta y; + et \quad (6)$$

$$\Delta yt = \alpha_0 + \alpha_1 y_{t-1} + \sum_{n=1}^{n} \alpha \Delta y; + \delta t + et \quad (7)$$

Where; Y is a time series, t = linear time trend, Δ = first difference operator in a manner that Δyt-1 =yt - yt-1, α_0 = constant term, n = is the optimum number of lags, and et is the stochastic variable.

Auto regressive distributed lag (ARDL) model

The autoregressive distributed lag (ARDL) technique is used to estimate the short-run and the long-run coefficients of the variables employed in the research. It becomes necessary as the stationarity test showed mixed order of integration among the variables. That is, order one and order two, as recommended by Pesaran, Shin and Smith (2001), among others. The ARDL model is specified thus:

$$\Delta INF_t = \beta_0 + \Sigma\, \beta_i \Delta INF_{t-i} + \Sigma \gamma_j \Delta GEE_{1t-j} + \Sigma \delta_k \Delta GEH_{2t-k} + \theta_0 INF_{t-1} + \ldots + \theta_{nCP2t-n} + e_t \quad (8)$$

In the equation 8, the generic ARDL model indicated that the equation is characterized by lags of the dependent variable and well as lags perhaps the current value of the regressors.

Results and Discussions

This subsection entails the presentation of results estimated from the econometric techniques engaged in the investigation, and the subsequent discussions of the results following the objectives of the study. The results are shown in the tables beneath.

4.1 Unit Root Test

To determine the order of integration among the variables used in the investigation, the unit root test is conducted via the application of the Augmented Dickey-Fuller (ADF) unit root test. The results are presented in Table 1 below.

Table 1: ADF Unit Root Test Results

Trend and Intercept

Level			First Difference			
Variables	**ADF Statistic**	**5% CV**	**ADF Statistic**	**5% CV**	**Remarks**	**Rank**
INF	-4.581048	-3.548490	…….	…….	Stationary	I(0)
LGEE	-3.359273	-3.544284	-7.722017	-3.548490	Stationary	I(1)
LGEH	-2.585928	-3.548490	-11.18795	-3.548490	Stationary	I(1)
LGEA	-3.066568	-3.544284	-6.818630	-3.552973	Stationary	I(1)
LGERC	-3.483584	-3.544284	-7.469743	-3.548490	Stationary	I(1)
LGETC	-2.865732	-3.544284	-8.045036	-3.548490	Stationary	I(1)
LGEPG	-3.127722	-3.544284	-8.083496	-3.548490	Stationary	I(1)

Sources: Researcher's computation from E-view 10

Table 1 above, reveals the results of stationarity test among the variables using the ADF unit root test. From the Table, all the variables except inflation rate (INF) were non-stationary at levels; but at first differencing, the non-stationarity variables became stationary at 5% significance level. The mixture of I(0) and I(1) among the series motivated the use of ARDL model to investigate the existence of linear combination among the variables.

4.2 Autoregressive Distributed Lag (ARDL) Estimate

The autoregressive distributed lag bounds co-integration test is a test of coefficients and long-run equilibrium relationships among the variables under investigation. The test is motivated given the mixed order of integration outcome of the stationarity test, conducted using the Augmented Dickey-Fuller (ADF) unit root test. The ARDL model estimation results are presented in the tables below.

Table 2: ARDL Bounds Test

F-Bounds Test			Null Hypothesis: No levels relationship	
Test Statistic	Value	Signif.	I(0)	I(1)
			Asymptotic: n=1000	
F-statistic	14.72903	10%	1.99	2.94
K	6	5%	2.27	3.28
		2.5%	2.55	3.61
		1%	2.88	3.99

Sources: Researcher's computation from E-view 10

The results in table 2 depict the test of long-run equilibrium relationship among the series used in the study. From the Table, evidence of long-run relationship was established among the variables.

Table 3: ARDL Long-run Coefficient Test: INF

Levels Equation
Case 2: Unrestricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LGEE	136.4005	42.21429	-3.231144	0.0120
LGEH	129.7765	43.81229	2.962103	0.0181
LGEA	15.27395	8.409368	1.816301	0.1069
LGERC	2.085252	4.080833	-0.510987	0.6232
LGETC	32.10362	8.730873	-3.677022	0.0062
LGEPG	4.481561	7.500974	-0.597464	0.5667
C	196.1667	50.83579	3.858829	0.0048

Sources: Researcher's computation from E-view 10

The results in table 3 indicate the estimation of ARDL long-run coefficient of the variables used in the study. From the results, the coefficients of GEE, LGEH, LGEA, LGERC, LGETC and LGEPG are 136.4005, 129.7765, 15.27395, 2.085252, 32.10362, and 4.481561, respectively; while their respective p-values include 0.0120, 0.0181, 0.1069, 0.6232, 0.0062, and 0.5667. This implies that government expenditure on education exerts significant positive influence on inflation rate in Nigeria. Hence, it estimated on the average that a 1% rise in government expenditure on education brings about 136.4% increases in inflation rate in the long-run, and 20.12% in the short-run in the economy. This result is in tandem with the Keynesian theory of public spending. The theory upheld that increase in public expenditure during economic contraction increases aggregate demand and hence, high inflation rate. Contrarily, the result contradicts the discovery of Mohamed, Yanzhi and Chuanzhong (2022) that examined the effect of government spending on education on inflation and found negative nexus between the two variables.

The results as well indicated that government expenditure on agriculture has a positive and significant impact on inflation rate though insignificant in the long-run in Nigeria. Thus, it is estimated that a 1% increase in government expenditure on agriculture results in 15.3% increase in inflation rate in the long-run, and 6.2% rise in the short-run. The above findings confirmed Keynesian theory of public spending, in which it postulated that a rise in public expenditure during economic contraction raises aggregate demand and inflation rate in the economy. It, however, negate the finding of Etian and Chiedza (2022) that studied the effect of government spending on agricultural production and found that increase in government spending is detrimental to agricultural production in the economy.

More so, the results above imply that government expenditure on health exerts a positive significant influence on inflation both in the short-run and the long-run in Nigeria. This finding, accordingly, is in line with Keynesian theory of public spending in public spending was assumed to have positive relationship with inflation rate in an economy. The result is also in tandem with the finding of Sima (2018) that studied the nexus between healthcare spending, economic growth and inflation and discovered that CPI inflation had the most effect on healthcare expenditure in the country considered.

Finally, the above results imply that government expenditure on roads and constructions exerts significant positive effect on inflation rate though inconsequential in the long-run in Nigeria. Hence, a 1% rise in roads and constructions expenditure brings about 2.1% increases in inflation rate in the long-run, and

15.8% rise in the short-run. This result is in accordance with the Keynesian theory of public spending which postulated positive relationship between public expenditure and inflation rate in an economy.

Table 4: ARDL Short-Run Coefficient Test: INF

ECM Regression
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LGEE)	20.12167	3.408634	-5.903148	0.0004
D(LGEH)	19.23364	3.477795	5.530413	0.0006
D(LGEA)	6.206013	1.553143	-3.995778	0.0040
D(LGERC(-1))	15.77186	2.216134	7.116834	0.0001
D(LGETC(-1))	8.993422	1.397157	6.436946	0.0002
D(LGEPG(-1))	5.510108	1.520193	3.624611	0.0067
CointEq(-1)*	-0.780083	0.052482	-14.86390	0.0000

R-squared	0.971731	Mean dependent var	-1.137879
Adjusted R-squared	0.939693	S.D. dependent var	13.74854
Durbin-Watson stat	1.748685	Akaike info criterion	5.573892

Sources: Researcher's computation from E-view 10

Table 4 showed ARDL short-run coefficient estimation. The results revealed that government expenditures on education, health, agriculture, roads and constructions, transports and communications, and pensions and gratuities have positive significant impact on inflation rate in Nigeria. These claims are evidenced by the p-values and coefficients of the variables. Thus, the coefficients of the variables including LGEE, LGEH, LGEA, LGERC, LGETC, and LGEPG are 20.12167, 19.23364, 6.206013, 15.77186, 8.993422, and 5.510108, respectively while their associated p-values include 0.0004, 0.0006, 0.0040, 0.0001, 0.0002, and 0.0067, respectively. Similarly, the error correction term [ECT(-1)] value is -0.780083 and its associated p-value of 0.0000. The coefficient of the ECTterm referred to as the speed of adjustment is fractional, negative and statistically significant. As expected, the coefficient borders between -1 and 0 for convergence. Hence, it implies that INF adjusts to LGEE, LGEH, LGEA, LGERC, LGETC, and LGEPGin the long run. In other words, the system corrects its disequilibrium in the short-run at a speed of 78%, thereby restoring it to equilibrium in the current period.

4.3 Diagnostic Tests

To test for stability of the model employed in the investigation, LM serial correlation test, and heteroscedasticity test as proposed by Pesaran and Pesaran (1997) were undertaken. The results are shown in Table 5 below.

Table 5: Diagnostic Tests

S/N	Diagnostic test	Obs*R-squared	Prob. Chi-Square(2)	Remarks
1.	Serial Correlation LM Test	0.035167	0.8512	No evidence of autocorrelation in the model
2.	Heteroskedasticity Test: ARCH	0.000104	0.9919	No evidence of heteroscedasticity in the model

Sources: Computation from E-view 10

4.4 Policy Implication of the results

Given the estimation results depicted in Tables 3 and 4 of section four, government spending on education, health, agriculture, roads and constructions, transports and communications, and pensions and gratuities have a positive relationship with inflation rate in Nigeria. By implication, it is estimated on the average that 1% rise in education, health, agriculture, roads and constructions, transports and communications, and pensions and gratuities will increase inflation rate in the long-run by 136.5%, 129.8%, 15.3%, 2.1%, 32.1%, and 4.5%, respectively, while in the short-run, inflation rate will rise by 20.1%, 19.2%, 6.2%, 15.8%, 9% and 5.5%, respectively in the economy.

4.5 Contribution to Knowledge in Literature

This study contributed to pool of knowledge in literature by adding government expenditures on roads and constructions, and pensions and gratuities on the existing model used by other scholars such as Lubo and Bigbo (2021). From the results, it was discovered that government expenditure on roads and constructions exerts positive significant influence on inflation rate in the short-run, and insignificant in the long-run. Similarly, the results indicated that expenditure on pensions and gratuities significantly and positively affected inflation rate in both the short-run and the long-run in Nigeria.

5. Recommendations and Conclusion

Based on the results and the objectives of this study, the following recommendation are made: that since the government spending on education significantly and positively impacted on inflation rate both in the short-run and the long-run in Nigeria, government should as a matter fact, monitor fiscal spending on education through regular visitation to schools and evaluation of performance to ensure that education spending is properly utilized by management authorities in the education sector. If this is done, expenditure on education will not trigger-off inflation in the economy. Having shown that government expenditure on agriculture has a positive significant influence on inflation rate in the short-run but insignificant in the long-run, government should ensure non-diversion of this fund to other things and also promote integrated agriculture to enable the investment to support itself. Given that government spending on health affected inflation rate significantly and positively in both the short-run and the long-run, government is advised to perform quality health service delivery evaluation in the health sector system. It is essential to improve the health sector to avoid foreign trip for medication which takes a large chunk of spending on health. This can be achieved through constitution of committee of inquiry, monitory and evaluation. More so, having found that expenditure on roads and constructions exert significant and positive impact on inflation rate in Nigeria, the study advised for effective award of roads and constructions contracts in the country. In so doing, inflated contract award can be monitored leading to reduction in contract bill. If that is done, expenditure on roads and construction will not trigger-off inflationary pressure in the economy.

In conclusion, the study was undertaken with the objective of finding the impact of government expenditure on inflation rate in Nigeria from 1986 to 2021. To find empirical results, ARDL model was utilized in the estimation of the variables of the study; with the results indicating evidence of long-run equilibrium relationship among the variables. It was further disclosed that government expenditure on education exerts a significant positive influence on inflation rate in Nigeria, agriculture, health, and roads and constructions have a positive influence on inflation rate in Nigeria. Having taken this research with adequate identification method as well as the establishment of policy recommendations, it is the belief of the study that if these recommendations are effectively implemented by government; it will go a long way in solving inflation problem in the Nigeria's economy.

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