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DETERMINANTS OF GOVERNMENT EXPENDITURE IN NIGERIA

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Abstract

This study examines the determinants of government expenditure in Nigeria for the periods spanning from 1981 to 2020. The data used were collected from the Statistical Bulletin of the Central Bank of Nigeria and the World Development Indicators of the World Bank. The least-square, correlation, and Granger causality estimation techniques were employed in the analysis of the data. The findings from the study reveal that there is a strong positive correlation between government expenditure and government revenue, economic growth, public debt servicing, and the population aged between 15 to 64, whereas a negative and strong correlation was observed in the case of the relationship between government expenditure and urbanisation, population structures aged between 65 and above, and 0 to 14 years. The results of the Granger causality test show the absence of causality between government expenditure and government revenue, and economic growth. On the other hand, unidirectional causality between government expenditure and public debt servicing, urbanisation, democracy, and the adult population aged between 65 and above was observed. Furthermore, the least square results indicate that government revenue and economic growth positively and significantly affect government expenditure, whereas, the population aged between 0-14 negatively affects government expenditure. On the other hand, public debt servicing, democracy, urbanisation, and the population aged between 14-64 and 65 and above do not have a statistically significant effect on government expenditure. The study, therefore, recommends that policymakers should take into consideration the level of economic growth, the total revenue and population structures in designing their expenditure profile.

Key Words: Government Expenditure, Government Revenue, Public Debt Servicing, Urbanisation, Economic Growth.

Introduction

Identifying the factors responsible for the growth of government expenditure remains the main concern of scholars and policymakers in both developing and developed countries. This is because government expenditure constitutes the major item in the national budget and aids in determining the developmental policy directions of the country. To meet up with the ever-increasing demand for basic and social amenities, policymakers are expected to pay attention to economic, social and demographic factors. It is generally believed that not only economic factors (economic growth, government revenue, public debt service, trade openness, etc.) affects government expenditure, urbanisation, age composition and politics also, play a significant role in government expenditure growth. Jess and Jerry (2009) identified economic growth, urbanisation, and age composition as one

of the factors that facilitate and cause the expansion of the public sector. In a similar vein, Adamu and Chandana (2019) pointed out the non-inclusion of political factors as one of the major weaknesses of the previous studies that attempted to examine the determinants of government expenditure. Over the periods, it was observed that economic growth increases national income and as a result, produces higher tax income for the government which raises its expenditure. The relationship between urbanisation and government expenditure growth is that as the economy grows the relative importance of agriculture declines and consequently leading to rural-urban migration for securing better jobs in the manufacturing and service sectors. This movement put pressure on the existing facilities in the urban centres thereby necessitating the need for increased government expenditure.

Despite several efforts made by various scholars to evaluate the determinants of public expenditure, Glenda (2017) having reviewed the various studies conducted between 1995 and 2015 discovered inconsistencies and conflicting results emanating from the choice of variables, scope and methodology. Similarly, a further assessment of the recent studies revealed that economic factors remained the major concern of scholars in the field. This study will be useful in filling the missing gaps in several ways: firstly, it will provide policy makers with empirical evidence of the effects of economic, demographic and political factors for better planning and implementation. Secondly, it will provide a guide for future studies on the effects of political and demographic factors ignored by the previous studies.

The main aim of the study is to examine the effects of economic growth, government revenue, public debt servicing, democracy, urbanisation and age composition on government expenditure in Nigeria. To achieve this, the paper is structured into five sections. Following this section is the literature review which contains both the theoretical and empirical. Section three presents the methods used in conducting the research. Section 4 contains results and discussions and the section concludes and provides policy recommendations.

Literature Review

This section presents the theoretical and empirical studies that examined the relationships between government expenditure and its determinants over periods.

Theoretical Review

Wagner and Keynesian theories are the most frequently used theories in explaining the factors responsible for public expenditure growth. Wagner states that an increase in government spending is caused by the economic expansion of a nation (Callister and Victor, 2020). Therefore, the growth of public expenditure is determined by the growth of real national income (Kirindap, 2018). Keynesian economists argued that the economic growth of the country is dependent on the increase in the size of public expenditure and other significant roles played by the government (Callister and Victor, 2020). Also, Richardson et al (2018) state that in Keynesian theory, the growth of public expenditure may lead to a higher level of aggregate demand which promotes economic growth.

Empirical Review

Numerous studies attempted to examine the determinants of public expenditure for both developing and developed economies some of which are presented thus:

Kirandeep (2018) examined the composition of public expenditure and economic growth in India using VECM. The results show that there is bi-directional causality between government expenditure and economic growth. Aluthge, Jibir and Musa (2021) assessed the impact of government expenditure in Nigeria for the periods between 1970 and 2019 using the ARDL model. The findings reveal that capital expenditure has a positive and significant impact on economic growth both in the short-run and in the long run. In a similar study, Deepti and Deepak (2020) investigated the nexus between expenditure and economic growth in developing countries for periods spanning from 1990 to 2019. the findings revealed a unidirectional causality running from public expenditure to economic growth. Similarly, it was also established the positive effect of public expenditure on economic growth whereas, population growth negatively affects economic growth. Also, Callister and Victor (2020) evaluated the efficacy of Wagner's public expenditure growth model in Nigeria using ARDL Model. The results show that economic growth has a positive effect on expenditure growth.

Jibir and Chandana (2019) analysed the determinants of government expenditure in Nigeria for the periods spanning from 1970 to 2017. Employing the ARDL technique, the study found that population; oil revenue and economic growth positively affect government expenditure.

Ezebuilo (2015) studied the determinants of the size of public expenditure in Nigeria using OLS. The study found that the size of revenue and growth rate of national income positively and significantly affect public expenditure. Edame (2014) investigated the determinants of government expenditure in

Nigeria. By employing the error correction model, the study found that urbanisation, government revenue, external reserve and population density are the major determinants of public expenditure.

Okafor and Eiya (2011) examined the determinants of government expenditure growth in Nigeria using OLS. The results indicate that government revenue, population, and public debt are the major determinants of public expenditure. Connoly and Li (2016) studied the effects of government spending on economic growth for OECD countries for the periods 1995 to 2011 using the generalised method of the moment.

The study established the negative effect of public expenditure on economic growth. Faislo et al (2018) tested the impact of public expenditure and efficiency on economic growth for the periods between 2011 and 2016 using a fixed effect panel regression model. The results indicate that a 1 per cent increase in public expenditure leads to about a 3.8 per cent rise in economic growth.

Taking a different approach, Glenda (2017) reviewed the studies on the determinants of public expenditure for the periods between 1995 and 2015. The study discovered inconsistencies and conflicting results emanating from the choice of variables, scope and methodology. Consequently, the study recommends the application of advanced econometrics techniques for re-examining the problem.

Evidence from the panel studies on the concentration on the use of economic determinants of government expenditure could be found in the work of Ubong and Nora (2020) who investigated the effect of government expenditure on the economic growth of 15 West African countries using the OLS technique. The result reveals that government expenditure has a positive and significant effect on economic growth in most countries.

Azolibe (2020) studied the socioeconomic determinants of public expenditure in West African countries using a panel fully modified OLS technique. The results revealed the population structures aged between 0-14 and 15-64 have a significant effect on public expenditure growth. The first category has a higher impact than the latter. On the contrary, the population aged 65 and above has a negative but insignificant impact on public expenditure growth.

Literature Gaps

The major weakness associated with the previous studies is that they focus mainly on economic factors such as economic growth, government revenue, and public debt, among others. None has

taken into consideration the effects of political factors (such as elections) and urbanisation. In addition, most of the studies considered the total population without dis-aggregating it to different age structures which could have different policy implications.

Methods

This section contains the description of the methods used in conducting the study which includes nature and sources of data, variables definition and measurement, model specification and methods of data analysis.

Nature and Sources of Data

The time series data covering the periods between 1981 and 2020 on the variables used in the study were obtained from the Central Bank of Nigeria (CBN) statistical bulletin and the World Development Indicator of World Bank Publication. Total government expenditure (TGEX) is the dependent variable, whereas, total government revenue (TGR), economic growth (RGDP), public debt servicing (PDS), democracy (DMC), urban population growth (URPG), population ages between 0-14 (PPY), population ages between 15-64 (PPA), and population ages between 65 and above (PPOL) are the independent variables.

Variables Definition and Measurement

Table 3.1 presents the status, definition, measurement and sources of data used in the study.

Table 3.1: Definition and Measurement of Variables

Variable	Definition	Measurement	Sources
TGEX	Is the total government expenditure comprising both the capital and recurrent	Measured in ₦ billion	CBN Statistical Bulletin
TGR	Is the total government revenue from oil and non-oil sectors	Measured in ₦ billion	CBN Statistical Bulletin
RGDP	Is the real Gross Domestic Product at Constant Market Price	Measured in ₦ billion	CBN Statistical Bulletin
PDS	Is the Public Debt Servicing	Measured in ₦ billion	CBN Statistical Bulletin
DMC	Dummy for the election period	1 for the election year, 0 otherwise.	INEC
URPG	It refers to Urban Population Growth	Annual percentage	World Development Indicator

PPA	Population aged between 15 to 64.	Percentage of the total population	World Development Indicator
PPOL	Population aged 65 and above.	Percentage of the total population	World Development Indicator
PPY	Population aged between 0-14.	Percentage of the total population	World Development Indicator)

Model Specification

The empirical model for evaluating the effects of democracy, urbanisation, age composition, economic growth, government revenue and public debt servicing on government expenditure is expressed mathematically as:

$TGEX = f(TGR, RGDP, PDS, DMC, URPG,, PPA, PPOL, PPY)$…………………3.1

Equation 3.1 is expressed in econometrics form as:

$TGEX_t = \beta_0 + \beta_1 TGR_t + \beta_2 RGDP_t + \beta_3 PDS_t + \beta_4 DMC_t + \beta_5 URPG_t + \beta_6 PPA_t + \beta_7 PPOL_t + \beta_8 PPY_t + \varepsilon_t$…..………………………………………….……..…3.2

All variables in equation 3.2 are expressed in logarithm form except a dummy (DMC) and are given as:

$logTGEX_t = \beta_0 + \beta_1 logTGR_t + \beta_2 LOGRGDP_t + \beta_3 LOGPDS_t + \beta_4 DMC_t + \beta_5 LOGURPG_t + \beta_6 logPPA_t + \beta_7 logPPOL_t + \beta_8 logPPY_t + \varepsilon_t$……………3.3

Where:

$\beta_0 representstheconstant,$

$\beta_1 \beta_8$ are the coefficients of the independent variables that measure a unit change in the dependent variable.

Method of Data analysis

The study employed correlation analysis, Granger causality, ADF and PP unit root tests and least square techniques to analyse the determinants of the public expenditure in Nigeria for the periods under study.

Results and Discussions

This section presents the correlation matrix, causality results, unit root tests, least square results and post-estimation test for the study.

Correlation Analysis

Table 4.1 presents the correlation matrix of the determinants of government expenditure. The table shows that there is a strong positive correlation between the dependent variable (LOGTGEX) and the independent variables LOGTGR(0.99), LOGRGDP(0.92), LOGPDS(0.97), and LOGPPA(0.83). Furthermore, a weak positive correlation was observed in the case of the correlation between LOGTEXP and DMC(0.20). On the other hand, a strong negative correlation was established between LOGTEX and LOGURPG(-0.61), LOGPPOL(-0.81), and LOGPPY(-0.80).

Table 4.1: Correlation Matrix

	LOGTGEX	LOGTGR	LOGRGDP	LOGPDS	DMC	LOGURPG	LOGPPA	LOGPPOL	LOGPPY
LOGTGEX	1	0.99	0.93	0.97	0.20	-0.61	0.83	-0.81	-0.84
LOGTGR	0.99	1	0.91	0.96	0.18	-0.59	0.84	-0.80	-0.81
LOGRGDP	0.93	0.91	1	0.91	0.19	-0.42	0.67	-0.90	-0.63
LOGPDS	0.97	0.96	0.91	1	0.13	-0.63	0.76	-0.75	-0.74
DMC	0.20	0.18	0.19	0.13	1	-0.05	0.22	-0.24	-0.21
LOGURPG	-0.61	-0.59	-0.41	-0.63	-0.05	1	-0.53	0.14	0.55
LOGPPAP	0.83	0.84	0.67	0.76	0.22	-0.53	1	-0.74	-0.99
LOGPPOLP	-0.81	-0.80	-0.90	-0.75	-0.24	0.14	-0.74	1	0.69
LOGPPYP	-0.80	-0.81	-0.63	-0.74	-0.21	0.55	-0.99	0.69	1

Source: Author's computation 2022 using E-views 10.

Granger Causality

The granger causality results presented in table 4.2 show that there is no causal relationship between the dependent variable (LOGTGEX) and the two independent variables (LOGTGR and LOGRGDP). This implies that the result does not support both the Wagner and Keynesian views of unidirectional causality. The implication is that there is no causal relationship between the variables. Also, the table reveals that there is a unidirectional causality running from LOGTGEX to PDS and LOGPPY. In addition, unidirectional causality running from DMC, LOGURPG, and LOGPPA to LOGTGEX was

observed. Finally, a unidirectional causality running from LOGRGDP to LOGTGR was established suggesting that economic growth influences changes in total government revenue.

Table 4.2*: Pairwise Granger Causality Tests*

Null Hypothesis:	Lags	F-Statistic	Prob.	Decision
LOGTGR does not Granger Cause LOGTGEX	2	0.5377	0.5891	Do not Reject
LOGTGEX does not Granger Cause LOGTGR		1.6235	0.2126	Do not Reject
LOGRGDPM does not Granger Cause LOGTGEX	2	2.4209	0.1045	Do not Reject
LOGTGEX does not Granger Cause LOGRGDP		2.1059	0.1378	Do not Reject
LOGPDS does not Granger Cause LOGTGEX	2	3.2324	0.0522	Reject
LOGTGEX does not Granger Cause LOGPDS		1.2557	0.2981	Reject
DMC does not Granger Cause LOGTGEX	2	1.1535	0.3279	Do not Reject
LOGTEXP does not Granger Cause DMC		3.9764	0.0284	Reject
LOGURPPG does not Granger Cause LOGTEXP	2	2.1069	0.1377	Do not reject
LOGTEXP does not Granger Cause LOGURPPG		3.9245	0.0296	Reject
LOGPPAP does not Granger Cause LOGTEXP	2	4.9479	0.0132	Reject
LOGTEXP does not Granger Cause LOGPPAP		1.8244	0.1772	Do not reject
LOGPPOLP does not Granger Cause LOGTEXP	2	4.6419	0.0167	Reject
LOGTEXP does not Granger Cause LOGPPOLP		5.2425	0.0105	Reject
LOGPPYP does not Granger Cause LOGTEXP	2	4.8295	0.0145	Reject
LOGTEXP does not Granger Cause LOGPPYP		1.7144	0.1957	reject
LOGRGDPM does not Granger Cause LOGTGR	2	0.62185	0.5431	Do not reject
LOGTGR does not Granger Cause LOGRGDPM		2.9905	0.0640	Reject

Source: Author's computation 2022 using E-views 10.

Unit Root Tests

The PP and ADF results presented in tables 4.3 and 4.4 reveal that all variables except DMC (which is stationary at level) are non-stationary at level but became stationary after taking their first difference. This means that they integrated order 1.

Table 4.3: PP Unit Root Test

UNIT ROOT TEST TABLE (PP)

At Level										
		LOGTGEX	LOGTGR	LOGRGDP	LOGPDS	DMC	LOGURPG	LOGPPA	LOGPPOL	LOGPPY
With Constant	t-Statistic	-1.2247	-1.5061	0.4510	-1.0828	-7.6023	-1.8192	-0.7802	-0.2708	-0.8532
	Prob.	*0.6540*	*0.5201*	*0.9827*	*0.7130*	*0.0000*	*0.3660*	*0.8136*	*0.9202*	*0.7923*
With Constant & Trend	t-Statistic	-0.7695	-0.4294	-3.0347	-2.4914	-13.4047	-1.8771	-2.1814	-3.0431	-2.1550
	Prob.	*0.9599*	*0.9828*	*0.1362*	*0.3304*	*0.0000****	*0.6472*	*0.4862*	*0.1341*	*0.5003*
Without Constant & Trend	t-Statistic	3.1720	2.1538	3.0273	1.9994	-6.1644	-1.2213	0.6775	-0.7808	-0.6673
	Prob.	*0.9994*	*0.9914*	*0.9991*	*0.9877*	*0.0000****	*0.1998*	*0.8580*	*0.3714*	*0.4216*
At First Difference										
		d(LOGTGEX)	d(LOGTGR)	d(LOGRGDP)	d(LOGPDS)	d(DMC)	d(LOGURPG)	d(LOGPPA)	d(LOGPPOL)	d(LOGPPY)
With Constant	t-Statistic	-7.4059	-6.1883	-3.7831	-8.0948	-23.7939	-5.7434	-2.4803	-4.1692	-2.2936
	Prob.	*0.0000****	*0.0000****	*0.0065****	*0.0000****	*0.0001****	*0.0000****	*0.1281*	*0.0023****	*0.1791*
With Constant & Trend	t-Statistic	-7.7285	-6.9464	-3.3619	-8.2097	-23.2905	-5.6840	-2.3835	-4.2466	-2.2146
	Prob.	*0.0000****	*0.0000****	*0.0719**	*0.0000****	*0.0000****	*0.0002****	*0.3818*	*0.0093****	*0.4683*
Without	t-Sta	-4.9094	-5.0361	-2.6193	-6.5670	-23.88	-5.6656	-2.2945	-4.1486	-2.0313

Constant & Trend	tistic					16				
	Prob.	*0.0000***	*0.0000****	*0.0102***	*0.0000****	*0.0000****	*0.0000***	*0.0228***	*0.0001****	*0.0418***

Notes: (*)Significant at 10%; (**)Significant at the 5%; (***) Significant at the 1%.

Source: Author's computation 2022 using E-views 10.

Table 4.4: ADF Unit Root Test

UNIT ROOT TEST TABLE (ADF)										
At Level										
		LOGTGEX	LOGTGR	LOGRGDP	LOGPDS	DMC	LOGURPG	LOGPPA	LOGPPOL	LOGPPY
With Constant	t-Statistic	-1.5469	-1.4298	-1.0412	-1.1842	-1.4880	-8.7074	1.3581	-1.4234	1.4632
	Prob.	*0.4994*	*0.5579*	*0.7282*	*0.6713*	*0.5282*	*0.0000****	*0.9984*	*0.5589*	*0.9988*
With Constant & Trend	t-Statistic	-0.3483	-0.5841	-1.7682	-2.5376	-2.726	-9.3036	-1.8651	-1.8610	-1.7576
	Prob.	*0.9861*	*0.9744*	*0.6978*	*0.3095*	*0.2329*	*0.0000****	*0.6496*	*0.6510*	*0.7021*
Without Constant & Trend	t-Statistic	0.5033	2.3740	3.0591	2.2025	-0.853	-1.2430	2.2401	-0.7048	-1.9595
	Prob.	*0.8192*	*0.9949*	*0.9991*	*0.9923*	*0.3396*	*0.1928*	*0.9927*	*0.4038*	*0.0491***
At First Difference										
		d(LOGTGEX)	d(LOGTGR)	d(LOGRGDP)	d(LOGPDS)	d(DMC)	d(LOGURPG)	d(LOGPPA)	d(LOGPPOL)	d(LOGPPY)
With Constant	t-Statistic	-2.0146	-6.1883	-3.7831	-8.0683	-16.971	-5.5862	-6.2848	-2.0950	-5.7575
	Prob.	*0.2795*	*0.0000****	*0.0065****	*0.0000****	*0.0000****	*0.0001****	*0.0000****	*0.2478*	*0.0000****
With	t-	-7.8397	-	-3.5655	-	-	-4.4710	-	-1.8207	-

Constant & Trend	Statistic		5.3341		8.0451	16.8889		5.9624		5.4285
	Prob.	*0.0000****	*0.0005****	*0.0466****	*0.0000****	*0.0000****	*0.0069****	*0.0001****	*0.6718*	*0.0005****
Without Constant & Trend	t-Statistic	-0.5845	-4.9487	-2.2692	-6.4861	-17.2337	-5.8499	-5.4831	-2.0348	-5.1480
	Prob.	*0.4569*	*0.0000****	*0.0243****	*0.0000****	*0.0000****	*0.0000****	*0.0000****	*0.0417****	*0.0000****

Notes: (*)Significant at 10%; (**)Significant at the 5%; (***) Significant at the 1%.
*MacKinnon (1996) one-sided p-values.

Source: Author's computation 2022 using E-views 10.

Least Square Results

Table 4.5 presents the result of least square equation 3.3 specified earlier. The result indicates that the coefficient of LOGTGR (0.55) is positive and statistically significant at a 5 per cent level of significance. This means that a 1 per cent increase in total government revenue could lead to an average of about 0.55 per cent increase in total government expenditure. This finding is in line with the findings of Jibir and Chandana (2019), Ezebuilo (2015), Edame (2014) among others. The result also shows that the coefficient of LOGRGDP (2.23) is positive and statistically significant at a 1 per cent level of significance suggesting that a 1 per cent rise in economic growth could lead to about a 2.23 per cent rise in total government expenditure. This result conforms with Wagner and Keynes's view of the relationship between total government expenditure and the economy and is also, consistent with the empirical findings of Deepti and Deepak, (2020), Ubong and Nora (2020), Faistol e.tal (2018) e.t.c.

The negative coefficient of LOGPDS (-0.056) is statistical insignificant implying that a 1 per cent increase in public debt servicing could lead to about a 0.056 per cent decrease in LOGTGEX. The result is consistent with the findings of Jibir and Chandana (2019).

The result indicates that the coefficient of DMC is negative (-0.017) but statistically insignificant. This means that during the election period total government expenditure decreases by about 0.017

compared to the non-election periods. The simple explanation for this is that the money spent in corrupt practices such as vote buying, and bribes during election periods are not accounted for and in most cases are the funds meant for developmental purposes.

It is expected that as the urban population grows the government expenditure should be increased to meet up with the increasing demand for social and basic amenities. The result presented in Table 4.5 shows that the coefficient of LOGURPG (-0.63) is negative but statistically insignificant. This means that a 1 per cent increase in urban population growth could lead to on average about a 0.63 per cent decrease in total government expenditure. This indicates that the government does not usually respond quickly to urbanisation challenges which make the problems remain for a long period.

The result in table 4.5 reveals that the coefficient of LOGPPA(-867.60) is negative but statistically insignificant. This implies that a 1 per cent increase in the population aged between 15 to 64 could lead to about an 867.60 per cent decrease in government expenditure. Also, the result shows that the coefficient of LOGPPOL(-25.10) is negative but statistically significant at a 5 per cent level of significance. This means that a 1 per cent increase in the population aged 65 years and above could lead to about a 25.10 per cent decrease in total government expenditure. This is because at this age most of them have either died or stopped receiving salaries and the pension and gratuities are not usually paid immediately. We can also observe from the table that the coefficient of LOGPPY (-762.81) is negative and statistically significant at 10 per cent. This indicates that a 1 per cent increase in the population aged between 0 to 14 could result in a decrease in government expenditure by about 762.81 per cent. This is because an increase in the young population increases the dependency ratio which lowers the economy and government's ability to raise sufficient revenue to finance its expenditure.

The table revealed that the value of R^2 is 0.99 implying that the variables included in the model explained about 99 per cent of variations in the dependent variable, whereas, only 1 per cent was explained by the factors outside the model. Therefore, the model has a good fit. The f-statistic (577.33) is statistically significant meaning that the variables are jointly significant at a 1 per cent level of significance.

Table 4.5: Least Square Results

Method: Least Squares		Dependent Variable: LOGTGEX		
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGTGR	0.551701	0.074037	7.451725	0.0000

LOGRGDP	2.226696	0.535708	4.156546	0.0002
LOGPDS	-0.055768	0.091981	-0.606303	0.5489
DMC	-0.017236	0.091763	-0.187828	0.8523
LOGURPG	-0.630514	0.757498	-0.832364	0.4118
LOGPPA	-867.5997	523.5543	-1.657134	0.1079
LOGPPO	-25.10063	29.36048	-0.854912	0.3994
LOGPPY	-762.8094	441.2733	-1.728655	0.0942
C	6341.037	3777.746	1.678524	0.1036
R-squared	0.993546			
Adjusted R-squared	0.991826			
F-statistic	577.3271			
Prob(F-statistic)	0.000000			
Durbin-Watson stat	1.457607			

Source: Author's computation 2022 using E-views 10.

4.6 Diagnostic Tests

The diagnostic results presented in table 4.6 show that the estimated least square equation has satisfied the no serial correlation, homoscedasticity and normality assumptions as the probabilities values are higher than 0.05 critical values.

Table 4.6: Diagnostic Tests

Breusch-Godfrey Serial Correlation LM Test			
F-statistic	0.866708	Prob. F(2,28)	0.4313
Obs*R-squared	2.273644	Prob. Chi-Square(2)	0.3208
Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	1.854526	Prob. F(7,31)	0.1118
Obs*R-squared	11.51128	Prob. Chi-Square(7)	0.1178
Scaled explained SS	8.363380	Prob. Chi-Square(7)	0.3016
Normality Test			
Jarque-Bera Statistics	0.639190	Probability	0.726443

Source: Author's computation 2022 using E-views 10.

Conclusion and Policy Recommendations

In conclusion, the findings presented in Table 4.5 offer valuable insights into the determinants of total government expenditure. The positive and statistically significant coefficient of LOGTGR suggests that increases in total government revenue tend to correspond with higher levels of government expenditure, aligning with previous research by Jibir and Chandana (2019), Ezebuilo (2015), and Edame (2014). Similarly, the positive and statistically significant coefficient of LOGRGDP indicates that economic growth is positively associated with government expenditure,

consistent with the views of Wagner and Keynes and supported by empirical studies such as Deepti and Deepak (2020) and Ubong and Nora (2020).

On the other hand, the insignificant negative coefficient of LOGPDS implies that increases in public debt servicing may not have a significant impact on total government expenditure, echoing the findings of Jibir and Chandana (2019). However, it is important to note that during election periods, there is a slight decrease in government expenditure, although this result is not statistically significant. This could be attributed to the diversion of funds towards corrupt practices during election periods.

Furthermore, the negative but statistically insignificant coefficients of LOGURPG, LOGPPA, LOGPPOL, and LOGPPY suggest that urban population growth, the working-age population, the elderly population, and the young population do not significantly influence government expenditure. However, the negative coefficient of LOGPPOL is statistically significant, indicating that an increase in the elderly population could lead to a decrease in government expenditure due to decreased spending on pensions and gratuities.

Overall, the high value of R-squared (0.99) indicates that the variables included in the model explain a significant portion of the variation in total government expenditure, with the model showing a good fit. Additionally, the statistically significant F-statistic (577.33) confirms that the variables are jointly significant at a high level of confidence.

The study, therefore, recommends that policymakers should take into consideration the level of economic growth, their total revenue and population structures in designing their expenditure profile. Also, future studies should test the effects of these factors on recurrent and capital expenditure to see whether they have a similar effect.

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