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Public Expenditure in Nigerian Economy: A Sectoral Analysis

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Abstract

This study examined the relationship public expenditure and the sectoral performance of Nigerian economy from 1986 to 2023. Specifically, the study examined how government recurrent and capital expenditure influence service sector contribution to gross domestic product. Data utilized in the study were sourced from the Central Bank of Nigeria and World Bank statistical bulletins of various issues. The study utilized the descriptive, unit root, Johansen co-integration and the parsimonious ECM techniques at the 5% significant level. The study discovered that all the variables were stationary at first differences, requiring the Johansen co-integration technique that validated the presence of long-run form. The study revealed that both government recurrent and capital expenditure are positively related to service sector contribution to GDP; whereas, only the later is statistically significant. The study concluded that government capital expenditure is the significant aspect of public expenditure that promotes the Nigerian economy. The study recommended that the Federal Government of Nigeria should substantially augment capital investment in sectors directly associated with services, including ICT infrastructure, transport systems, power supply, and public health facilities.

Keywords: Government, Expenditure, Segments, Performance, Facilities

1.0 Introduction

Public spending plays a central role in the economic development of any nation, serving as one of the key means of executing government policies for promoting growth, alleviating the inequities and delivering required public goods and services. In the case of Nigeria, public expenditure has become a key issue in the general discourse on economic management given the country's chronic fiscal imbalances, oil-based income and the necessity of equitable and sustainable growth. Nigeria's public expenditure has significantly increased over the years with successive governments spending on various sectors such as education, health, infrastructure, agriculture and defence. The efficacy and efficiency of these expenditures in promoting economic development remain a subject of debate among academicians and policy makers (Onifade et al., 2020).

A sectoral study of public spending is especially pertinent in Nigeria because of the diversity of the economy and the sectoral disparity in development in Nigeria. Despite the large financial allocations to some sectors, the results are often not matching the levels of investment leading to questions about efficiency of allocations and corruption, inconsistency of policies and poor execution of policies. Notwithstanding huge investments in education and health, Nigeria is still struggling with low literacy rate, poor health outcomes and high number of out-of-school children (Aregbeyen & Kolawole, 2015). Furthermore, the infrastructure and electricity sectors that are so important for the development of industries, continue to suffer underinvestment and mismanagement, hence hindering the economy's productivity and competitiveness.

The fiscal operations of the Nigerian government have been significantly weighted against capital investment in favour of recurrent spending. This trend has made one to seek enquiry about the developmental focus of public expenditure of Nigeria especially with the growth in population and the need to create sustainable productive capacity. The Central Bank of Nigeria (CBN, 2023) explains that recurrent spending has been more than 70% of the national budget in the past few years, hence limiting the availability of resources for infrastructure, industrial development and human capital investments. This difference is a setback for economic diversity and sustainable development, particularly in a country that is trying to shift from dependence on oil.

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Despite the numerous body of literature on the relationship between public expenditure and economic growth in Nigeria, there are still several critical gaps in the literature that are yet to be examined. Most of the studies that exist have mainly concentrated on the aggregate impact of public expenditure on economic growth, and most times, without appropriately disaggregating the spending into sector specific components (Aregbeyen & Kolawole 2015; Iheanacho, 2016; Ibe & Olulu-Briggs, 2015; Olulu-Briggs & Timise, 2023). This aggregate approach, helpful in generalisations, ignores the differential effects different sectors could have on macroeconomic outcomes (for example, education, health, infrastructure, agriculture and defence). As a result, nuanced understanding of the policy needed for effective policy formulation and prioritisation of sectors is missing. This research work bridges the gap in literature by investigating the effect of public expenditure on service sector in Nigeria.

2.0 Literature Review

2.1 Conceptual Framework

2.1.1 Public Expenditure

Public expenditure refers to the financial spending by government bodies at all levels - including federal, state, and local levels - on products and services intended to meet the common needs of the community and to bring national advancement. It is an important fiscal tool in the hands of governments to influence economic activity, redistribute income, stabilise the economy, and provide public goods; i.e. education, healthcare, infrastructure, and security. Public spending is divided into recurrent expenditure which covers government spending on running government such as wages and maintenance, and capital expenditure which is spent on acquiring assets and investing in development initiatives. The kind and size of public spending reflect a nation's economic objectives and the developmental strategy. In developing nations like Nigeria, public investment plays an important role in addressing the problem of infrastructure deficiency, poverty alleviation and economic development (Ogunmuyiwa & Ekone, 2022). The efficiency of public spending depends on the efficiency of resource allocation, the quality of institutions, and the level of openness and accountability in budgeting and budget implementation procedures (Onifade et al., 2020). In Nigeria, although government expenditure on the country has grown over the years, the outcomes in terms of economic development, poverty and human development have been suboptimal and require more strategic allocation and supervision of public expenditure (Aregbeyen, 2015; Kolawole, 2015).

2.1.2 Sectoral Analysis

Sectoral analysis is an economic analysis tool, which involves segmentation of the economy into sectors for example the agricultural sector, manufacturing sector, health sector, education sector, transport sector etc. and assessing the individual performance, contribution to overall economic growth, response to policy changes in each of them. This methodology allows academics and policymakers to identify sector-specific barriers, growth enablers, and areas that require targeted responses. Sectoral analysis is very important in understanding the distribution of resources among different sectors and the extent of allocation of such resources to meet the national development targets (Iheanacho, 2016). Sectoral analysis in terms of public expenditure identifies which sectors benefit the most from government spending, and how these spending affects socio-economic outcomes. It facilitates the comparative study of industries to make a study of efficiency, productivity, and the fiscal effect. In a country like Nigeria which is characterised by uneven economic growth and limited public budgets, sectoral analysis is an essential foundation for optimising public resource allocation which guarantees that key sectors have adequate financing and assistance (CBN, 2023). Ultimately, sectoral analysis is helpful in devising evidence-based policies and enhancing the accountability of public financial management.

2.2 Theoretical Framework

The analysis of public spending in Nigerian economy particularly from the sectoral perspective is predicated on two main economic theories which are Wagner's Law of Increasing State Activities and the Keynesian Theory of Public spending. These

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theories allow a conceptual framework for analysing the role, magnitude and effects of government expenditure on sectoral development and the performance of the economy, as a whole.

Wagner's Law is a law formulated by the 19th century German economist Adolph Wagner which states that economic development will inevitably result in an increase in government spending. This hypothesis assumes a long-term correlation between economic development and public expenditure; it argues that public spending grows both absolutely and as a percentage of national revenue as a society advances into greater complexity and industrialisation (Wagner, 1883). Wagner mentioned three major reasons for this upswing: The expansion of the administrative and protective tasks of the state, the growth of the cultural and welfare functions, and the growing demand for social and merit goods, such as education, healthcare and infrastructure. Wagner's Law is particularly relevant in Nigeria, as the country has been continuously striving for a diversified economy and addressing a wide range of socio-economic problems. With increase in population and urbanisation comes the concomitant increase in demand for public goods and services, which demand for increased government spending. Over the decades, the Nigerian government has been bolstering its involvement in areas such as education, health, agriculture and infrastructure, working toward promoting certain elements of inclusive development and reducing inequality (Ogunmuyiwa & Ekone, 2022).

Nonetheless, a thorough evaluation of Wagner's Law in the context of Nigeria triggers enquiries on the efficacy of this augmented investment. Despite massive growth in public spending, the results of sectors often fail to match the level of investment, and this is due, among other factors, to inefficiencies, corruption, and weak institutions (Aregbeyen & Kolawole, 2015). Wagner's Law provides a useful analytical framework for explaining the systematic growth of government expenditure with the development of Nigeria's economy and needs of its institutions. Furthermore, the empirical research in Nigeria has been validated to some extent on Wagner's Law, especially over the long run. Okoro (2013) illustrated that government spending in Nigeria increase with the economic development, however causation may also be in the other way. This interaction requires sectoral analysis in order to identify areas of expenditure that match economic goals and offer the best returns in terms of development.

The second theoretical underpinning of this research is the Keynesian theory on public expenditure which originated in the work of the British economist John Maynard Keynes. The Keynesian framework places a strong emphasis on the important role of government expenditure as a tool of macroeconomic stabilisation, particularly in the case of an economic recession. Keynes believes that a lack of aggregate demand could lead to unemployment and economic stagnation, while public investment will stimulate demand, boost output and restore full employment (Keynes 1936). The Keynesian theory relates the government expenditure that is a powerful tool of fiscal policy that can influence aggregate demand, investment and consumption. Within this approach, the spending of public money in different areas, especially in infrastructure, health, and education, is considered both a social need and an economic stimulus that boosts the economic activity overall. Investment in infrastructure could reduce the cost of production, attract private investment and boost productivity, whilst spending on education and health develop human capital needed for sustainable development (Iheanacho, 2016).

In Nigeria, with its structural unemployment, poverty and the lack of investment in key industries, Keynesian theory suggests an increased public expenditure in some areas to help boost economic recovery and growth. The government interventionist strategy, particularly in response to economic disruptions such as the epidemic of Covid-19, represents the Keynesian ideals through the introduction of fiscal stimulus packages to stabilise the economy.

The concept holds that in periods of low private sector activity or external shocks (such as crashing oil prices or world recessions) public sector spending should increase to fill the spending gap and keep aggregate demand going. This justifies the constant financial priority the government of Nigeria has given to infrastructure and social

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services, despite financial constraints. However, the efficacy of these expenditures is dependent on their allocation efficiency and the institutional framework in the implementation of such expenditures (Onifade et al., 2020). Empirical Research Support for the Keynesian view in the Nigerian context – Olayungbo and Akinbobola (2011) found that public expenditure has a very significant impact on output growth, particularly when capital investment is directed to growth-promoting industries. This theory emphasises the need of examining the magnitude and structure and trajectory of the expenditure of the government in different sectors of the economy.

Wagner's Law and Keynesian theory provide important information on the dynamics of public expenditure in a growing country such as Nigeria. Wagner's Law explains the orderly increase in public expenditure due to social and institutional progress, while Keynesian economics explains the importance of it in stimulating economic activity and achieving macroeconomic stability. This research is based on these two theories, it therefore provides for a comprehensive understanding of the trends of public spending, the sectoral implications and ability to foster sustainable economic growth in Nigeria.

2.3 Empirical Review

Chandana et al. (2024) investigated the effect of the Nigerian government expenditure, which is classified as capital expenditure and recurrent expenditure on economic development between 1970 and 2019. The research is based on the ARDL model. The main results of the research are that both in the long and short term the capital investment has a beneficial and significant impact on the development of the economy. Conversely, high spending that is repeated over and over again has minimal effect on economic growth, both in the short term and the long run.

Ozoemene et al. (2024) looked at the government spending and its effect on the development of the Nigerian economy between 1999 and 2022. The results of the study suggest that government capital investment is an important factor in boosting the actual gross domestic product of Nigeria. In the context of government recurrent spending in Nigeria, its impact on real gross domestic product is statistically significant and has a positive impact.

Olufemi and Omorogiuwa (2024) looked at the effect of public spending on the economic development of Nigeria across a 23-year period of 2000-2022. At the 5% significance level, the results show a statistically significant and positive correlation between the variables of national defence spending, infrastructure development spending and real GDP.

Analysing the impact of government spending on economic development of Nigeria from 2005 to 2022 Elaigwu and Khikando (2024) Analysis of the impact of government spending on economic development of Nigeria from 2005 to 2022 The results show that Nigerian GDP per capita was significantly improved by capital spending.

Manullang et al. investigate the effect of government expenditure on the Human Development Index (HDI) for a period from 2018 to 2023. The results of this research show that human growth index variable is positively and statistically significant affected by government spending variable.

Javed and Husain (2024) analysed the economic development of Oman vis-a-vis government spending. Significant factors that have a negative impact on the long-term economic growth of Oman are government expenditure, consumer spending, and state debt. In the short run, consumption expenditures by the government and private expenditure have a significantly negative impact.

Sethi et al. (2024) analyse the effect of healthcare spending, quality of institutions, local and international investments on the economic growth of South Asian nations between 1996-2018. The results show that in the countries analysed, health expenditure and economic development have a reciprocal relationship in the short run.

Mawejje (2024) analyses the interactions between government expenditure, the informal sector and economic development in 15 countries of Eastern and Southern Africa. Real per capita GDP is greatly influenced by the Government's expenditure, consumption, and investment. Furthermore, informality is a direct negative factor for the growth of real per capita GDP.

Khan et al. (2024) investigated the role of institutional quality of a country on the relation between government spending and economic development. The major results are that only countries with poor institutional quality, government size significantly has a negative effect on economic growth.

In the period 2000 to the present Tran et al. (2024) investigated the correlation between fiscal deficit and government expenditure on the shadow economy in thirty-two Asian countries. The empirical results of the research showed an expansion of the shadow economy is correlated directly to increasing government spending and fiscal imbalance. Paradoxically, as the budget deficit increases, the governmental spending on the underground economy will have a greater effect.

Ndanshau and Mdadila (2023) studied the effect of government spending on economic development in Tanzania between the years 1967 and 2020. The research showed that long-term economic development is negatively and significantly statistically affected by inflation. On the other hand, the impact of private investment on economic growth was positive but not statistically significant.

Okoli et al (2023) discussed the government expenditure effects on the Nigerian economic development from 1970 to 2020 with ARDL modelling. The research suggested that investment in the utility and the communication sector had a positive impact on the growth rate of the economy, however it was statistically insignificant. Although this is not statistically significant in the immediate future, the effect of the spending on sectors such as health, transport and education to the economic growth of Nigeria was negative.

Rahman (2023) described the reciprocal impact and causal relationship between government spending and economic growth in the SAARC countries. Government spending has a different positive effect on the GDP of the SAARC States. Furthermore, in SAARC countries, there is an important association between government spending and economic progress.

3.0 Methodology

The study was conducted through positivism philosophy which emphasise the learning through action and the construction of learning through experience and reflection. The idea is that the researcher and the topic of the study are independent of each other and are not influenced by each other. Positivism can perhaps offer financial management a persuasive framework. This research was ex post facto research. Ex post facto research design is carried out after some event has occurred, with pre-existing data (Okene & Sunday, 2021; Sunday & Olulu-Briggs, 2026; Sunday et al., 2019). The judgemental sampling approach was employed in this research by setting certain criteria for the inclusion of data in the sample; the data used in the research was obtained from the Central Bank of Nigeria, the National Bureau of Statistics, and the World Bank statistics bulletins. The data used in this research go from 1986 to 2023. The research employed descriptive statistics, unit root tests and ECM technique on a level of 5% significant. The model of the research illustrates:

GDPSS = f (GOCAP, GOREX) 3.1

$$GDPSS_t = \delta_0 + \delta_1 GOCAP_t + \delta_G GOREX_t + \epsilon_t \quad 3.2$$

On apriori δ_1, and $\delta_2 > 0$

Where, GOREX = government recurrent expenditure, GOCAP = government capital expenditure, and GDPSS = Service sector contribution to gross domestic product, t = Annual time series, δ_1, and δ_2 = Constant parameters, δ_0 = Intercept

4.0 Results and Discussion

4.1 Descriptive Statistics

	GDPSS	GOCAP	GOREX
Mean	3303.106	795.1424	2599.250
Median	3032.275	508.7638	1216.050
Maximum	7060.460	4486.206	14287.56
Minimum	268.3800	6.372500	7.696900
Std. Dev.	1820.029	962.2532	3412.882
Skewness	0.105588	2.075457	1.737679
Kurtosis	1.966089	7.590092	5.641819
Jarque-Bera	1.763148	60.64012	30.17410
Probability	0.414130	0.000000	0.000000

Source: E-views 10 Output

The descriptive statistics of the variables, namely Service Sector Contribution to GDP (GDPSS), Government Capital Expenditure (GOCAP) and

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Government Recurrent Expenditure (GOREX) provide great insight into the trends and dynamics of government expenditure as well as sectoral production in Nigeria. Throughout a 38 years period, the mean contribution of the service sector to the GDP was about N3,303.11 billion, whilst the median value was at N3,032.28 billion. The small difference between the mean and median shows a somewhat symmetric distribution, accompanied with moderate growth of the sector over time. On the other hand, the government capital spending averaged N795.14 billion with its median value of N508.76 billion, signifying a favourably skewed distribution. This means that a lot of years of high capital investment raised the average up. Recurrent spending was on average N2,599.25 billion with a median of N1,216.05 billion showing a wide gap. The large gap suggests that recurring expenditures have increased dramatically over the years, possibly due to increasing administrative costs and expense of personnel.

The largest and smallest numbers indicate the large variability in government spending. The GDPSS has varied from N268.38 billion to N7,060.46 billion over time, which shows that the service industry has grown significantly. GOCAP with a peak of N4,486.21 billion and a low of N6.37 billion indicates a lack of commitment in government to capital initiatives. The variation in capital expenditure can be argued to be due to variables such as change in political administrations, changes in global oil prices and volatility in fiscal policies. GOREX experienced a great fluctuation with a range of N7.70 billion to N14,287.56 billion. This significant increase in recurrent spending over the years could reflect rising commitments in wages, subsidies and pensions and operational expenditures.

The standard deviations help highlight the volatility of each of the variable even more. The standard deviation of the GDPSS was N1,820.03 billion, which shows that there was a lot of variation. GOCAP had more standard deviation of N962.25 billion, which is a feature of erratic behaviour of capital expenditure. The most volatile was GOREX with a standard deviation of N3,412.88 billion, telling us that it is erratic and extensive. The volatile recurrent spending may have long-term implications on sustainable development especially if it continues to exceed capital spending on the development of economic infrastructure and productivity.

Skewness and kurtosis measures give information about the distributional properties of the data. The GDPSS had a skewness of 0.11 and a kurtosis of 1.97, indicating that this has a distribution that is nearly normal. GOCAP and GOREX had significant positive skewness (2.08 and 1.74, respectively) and high kurtosis (7.59 and 5.64, respectively). This means that both types of government expenditure have very long right tails where there are some extreme values, indicating years of very high spending. These trends show that the government expenditure is unstable and fluctuates with sudden variation and that is especially true for the capital and recurring head.

The Jarque-Bera (JB) test for normalcy supports these conclusions. The JB statistic for GDPSS is 1.76 along with a p-value of 0.4141, which shows that the data is normally distributed and suitable for parametric analysis. The JB statistics for GOCAP (60.64) and GOREX (30.17), both with p-values of 0.0000, suggest that the data sets do not have a normal distribution. This non-normality is caused by the presence of outliers and heavy tails in the distributions, particularly in years when there was a large deviation from the mean in government spending.

The research shows that Nigeria's service sector contribution to GDP has been constant and distributed on a regular basis and thus implies sustained growth in this area. Nonetheless, government expenditure - and in particular recurrent spending - has been extremely volatile and extremely high in relation to capital outlay. This disparity implies the emphasis of a government towards immediate consumption versus sustainable productive investment. The large disparities and skewness in capital spending are an indication of a lack of consistency in the development planning and execution. To improve sectoral performance especially in service sector government demand more deliberate and sustained capital investment. Redirecting a portion of recurring expenses to capital projects could lead to improvements in infrastructures, human capital and technology,

which in turn leads to sustainable economic development.

Table 4.2: Result of Unit Root Test

Variables	T-Stat @ Level	T-Critical @ level	P-value @ level	T-Stat @ 1st Diff.	T-Critical @ 1st Diff.	P-value @ 1st Diff.	Order of Integration
GDPSS	-0.566129	-2.943427	0.8661	-5.774431	-2.945842	0.0000	I(1)
GOCAP	0.488561	-2.976263	0.9831	-3.892122	-2.976263	0.0063	I(1)
GOREX	1.017415	-2.945842	0.9959	-6.229922	-2.948404	0.0000	I(1)

Source: E-views 10 Output

The result of table 4.2 shows that all the variables were integrated at first difference. This is because at their respective level of integrations, their ADF t-stat values were above their t-critical values at the 5% significance level. Also, their respective p-values were below the 5% significance level. Thus, this study employs the Johansen co-integration test to verify the presence of long-run form among the variables.

Table 4.3: Johansen Co-integration Result

Trend assumption: Linear deterministic trend

Series: GDPSS GOCAP GOREX

Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.623124	44.04950	29.79707	0.0006
At most 1	0.169312	9.895173	15.49471	0.2889
At most 2	0.092642	3.402656	3.841466	0.0651

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.623124	34.15433	21.13162	0.0004
At most 1	0.169312	6.492516	14.26460	0.5508
At most 2	0.092642	3.402656	3.841466	0.0651

Source: E-views 10 Output

The result of the trace and max-eigen statistics showed the presence of one cointegrating equations. This entails that there is the presence of long-run form among the variables. As a result, we go further to examine the parsimonious error correction model to determine the nature of the long-run relationship among the variables.

Table 4.4: Parsimonious Error Correction Model Result

Dependent Variable: GDPSS

Method: Least Squares

Sample (adjusted): 1987 2023

Included observations: 37 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GOREX	0.047778	0.431307	0.110775	0.9125
GOCAP	0.417216	0.121947	3.421299	0.0017
ECM(-1)	-0.784560	0.103624	-7.571191	0.0000
C	2284.029	131.8714	17.32013	0.0000

R-squared	0.893555	Mean dependent var	3385.126
Adjusted R-squared	0.883878	S.D. dependent var	1772.508
S.E. of regression	604.0112	Akaike info criterion	15.74687
Sum squared resid	12039374	Schwarz criterion	15.92102
Log likelihood	-287.3171	Hannan-Quinn criter.	15.80827
F-statistic	92.33981	Durbin-Watson stat	1.968877
Prob(F-statistic)	0.000000		

Source: E-views 10 Output

The model has an important explanatory power indicated by an R-squared value of 0.8936. This means that approximately 89.36% of the variation in the contribution of the service sector to GDP is

explained by the independent variables in the model. The corrected R-squared taking into account the degrees of freedom is high at 0.8839, which confirms the robustness of the model. The F-statistics is 92.34 with the probability value of 0.0000; therefore, the entire model is statistically significant at 1% of the significance level. The amalgamation of GOCAP, GOREX and ECM goes a long way in elucidating the variations in GDPSS. The Durbin-Watson statistic is 1.97 which is close to the optimal value of 2. This indicates that there is no significant autocorrelation in model residual.

The result of the individual coefficient shows that the government capital expenditure (GOCAP) has positive and statistically significant coefficient 0.4172 with p-value of 0.0017. This means that if the capital expenditure is increased by a unit, there is a corresponding increase of 0.4172 in the contribution of the service sector to the GDP, provided that other factors do not change. This discovery is in line with economic theory, as investment in capital expenditure (particularly on infrastructure, education, and technology) will enhance productivity and growth in the service sector. However, the coefficient of government recurrent expenditure (GOREX) is 0.0478 and is statistically insignificant (p = 0.9125). This shows that the recurrent spending does not have a large effect on the output of the service sector in the near term. Recurrent spending typically comprises of salaries, pensions and administrative expenses, which though important, may not necessarily boost economic productivity and sectoral growth immediately.

The ECM variable is negative and statistically significant at 1% level, the coefficient value is -78,46. This represents a strong pace of adjustment, with some 78.5% of any short-term imbalance between government spending and the GDP contribution of the service sector being corrected in one year. The significance of the ECM term provides further validation for the existence of a long-term equilibrium connexion among the variables. This indicates that despite short-term budgetary disturbances, which can cause the service sector to deviate from its long-term path, it is usually back on track rather quickly. A quick and large adjustment speed is desirable from the standpoint of policymakers because it means that fiscal measures may provide immediate corrective effects.

The constant term (C) is statistically significant and it is 2284.03. In the absence of changes in government spending, the contribution of the service sector to GDP would be around 2284.03 by the baseline. Additional model diagnostics such as a standard error of the regression, 604.01 and log-likelihood value, -287.32 further support the reliability of the estimated model. The Durbin-Watson statistic of around 2 means that the model contains no first order serial correlation.

The results of the regression have very important policy implications. Capital spending plays a substantial role in promoting growth in the service sector, thus it shows that the focus on profitable investments in infrastructure and development is essential. On the other hand, the insignificance of recurrent expenditure implies that excessive expenditure on overheads and non-productive products generate insignificant returns on the sectoral output. Consequently, for the purpose of stimulating sustainable development in the service sector in Nigeria, the government had no choice but to consider reallocating resources from recurrent to capital spending. Responsiveness of the service sector as indicated by the period of error correction implies that these modifications in fiscal would have immediate and significant effects on economic performance.

4.2 Discussion of Findings

The results of the regression analysis give a lot of insights regarding the correlation between the government spending and the performance of the service sector in Nigeria. The research shows that GOCAP has a positive and significant effect on the contribution of the service sector to gross domestic product (GDPSS) but GOREX is statistically insignificant. This finding highlights the different impacts of expenditure items in sectoral growth, which is consistent with other literature that state that capital spending, such as investment on infrastructure, health and education, boost economic productivity and growth (Barro, 1990; Nurudeen and Usman, 2010).

The coefficient of government capital expenditure (0.4172) is statistically significant at 1% level of

significance (p = 0.0017) which implies that for a unit of increase in capital expenditure, the contribution of service sector to GDP increases by approximately 0.4172 units, ceteris paribus. This supports the claim that effective government expenditure enhances sectoral output especially in a developing economy like Nigeria where infrastructural problems have been a major hindrance to corporate operations. Prior empirical studies, such as Iwuagwu and Okezie (2016) and Aregbeyen and Akpan (2013) have equally demonstrated that capital investment has a significant impact on economic growth and sectoral productivity. The important role capital spending plays in the service sector may be attributed to the fact that many service-oriented industries, which are transportation, telecommunications, and financial services for example, are subject to the availability of government provided infrastructure and facilities.

In contrast, the research shows the government recurrent spending has an insignificant coefficient (0.0478) with a high p-value (0.9125) which indicates that it does not have a major influence on the service sector in the near term. This means that the recurring costs such as wages, pensions, subsidies and general administrative expenses don't instantly relate to increased productivity of the service industry. This is similar to the conclusions of Oteng-Abayie, Amanor and Frimpong (2011) who argued that although recurrent expenditure could lead to social stability, its immediate productive impact is limited if it is not directed towards human capital enhancement. In Nigeria, a high percentage of the state resources is usually swallowed by the regular budget arrangement, and the consequence of this is the low capital investment funds (Ogunlana & Ogunleye, 2020). Consequently, the lack of significant impact may be indicative of inefficiencies, as well as consumption-driven nature of recurrent spending.

The error correction term (ECM) is negative and statistically significant (with a coefficient equal to -0.7846 and the p-value equal to 0.0000). This implies that about 78.5% of short-term deviations from the long-term equilibrium path are corrected every year i.e. the rate of adjustment is fast. The significance of the ECM confirms the existence of a long-term relationship between the two variables i.e. government spending and the output of the service industry, which are in line with the concept of cointegration (Engle & Granger, 1987). This result shows that although recurrent and capital expenditures may have different short-term effects, in the long run, they have consistent and predictable consequences on the service sector. The speed of adjustment rate is also indicative of the dynamics of the service sector in Nigeria, which may be sensitive to changes in macroeconomic and fiscal policies.

The data also shows the economic framework of Nigeria where government budgets have been criticised many times for prioritising recurrent expenditure over capital investment. Empirical data from Aregbeyen and Akpan (2013) and Ezirim, Muoghalu and Elike (2006) shows that although capital investment promotes growth, the Nigerian government has continuously preferred recurrent spending over capital investment. The present results highlight the importance of fiscal reorganisation and the reallocation of the priorities in government expenditure. By investing more in capital projects that have a direct impact on service infrastructure (involving electricity supply, information and communication technology (ICT) networks and transportation systems), government may significantly improve the productivity of the service sector and its contribution to economic development.

5.0 Conclusion and Recommendations

The study examined at the relationship public expenditure and the sectoral performance of Nigerian economy. Specifically, the research focused on the effect of government recurrent and capital expenditure on the contribution of service sector to the gross domestic product. Utilising the descriptive, unit root, Johansen co-integration and the parsimonious ECM techniques at 5% significant level, the study concluded that the government capital expenditure is the significant aspect of public expenditure which promotes the Nigerian economy. The study recommended that:

i. The Nigerian Federal Government should greatly increase capital investment in sectors that directly relate with services such as ICT infrastructure, transport system, power supply and public health facilities. The regression analysis showed that capital investment had a statistically significant and positive impact on

the service sector contribution to GDP, and this shows potential for capital investment to boost productivity. Consequently, policy frameworks will need to incorporate sector specific capital initiatives, including the development of digital infrastructure to strengthen financial services, e-commence and telecommunications, which predominate in the service economy of Nigeria. Budgetary strategies should allocate a large portion of capital allotments particularly for these growth-promoting sectors.

ii. In view of the minimal effect expenditure recurrence has on service sector as demonstrated by the research, the Federal Government of Nigeria should consider carrying out an audit and reforming recurrent spending practises to minimise wastage and reallocate savings into productive use. Compensation, retirement benefits and administrative expenses need to be evaluated to eliminate the phantom employees, redundant expenditures and financial leakages. Moreover, recurrent expenditures that will increase long-term productivity (e.g. investments in training, education, and health of public sector employees) should be a priority. This reorganisation would ensure that recurrent expenditures have an indirect impact on improving the performance of sectors by enhancing human capital and institutional efficiency.

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