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REVIEW ARTICLE

IMPACT OF FISCAL POLICY ON MANUFACTURING SECTOR: EMPIRICAL EVIDENCE FROM NIGERIA

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ABSTRACT

The study investigated the effect of fiscal policy on manufacturing output in Nigeria between 1985 and 2020. Specifically, it pursued three objectives: to examine how government capital expenditure influences manufacturing output, to assess the impact of government recurrent expenditure on the sector, and to evaluate the effect of taxation on manufacturing performance. Annual time series data were employed, with real manufacturing output serving as the dependent variable, while recurrent expenditure, capital expenditure, value-added tax, and domestic debt were the independent variables. The analysis was carried out using the Ordinary Least Squares (OLS) method, with data obtained from the CBN Statistical Bulletin. Findings showed that recurrent expenditure exerted a negative effect on manufacturing output, capital expenditure also had a negative influence, and value-added tax similarly reduced manufacturing performance. Conversely, domestic debt demonstrated a positive effect on output in the sector. Based on these results, the study recommended that fiscal policy should place greater emphasis on the manufacturing sector by ensuring improved budget implementation. Strengthened and consistent government commitment is expected to boost aggregate spending and enhance the overall performance of the manufacturing industry.

KEYWORDS

Fiscal Policy, Manufacturing Sector, OLS, Time Series, Recurrent Expenditure

1. INTRODUCTION

Over the years, the Nigerian government has implemented various macroeconomic policies aimed at stimulating economic growth, with fiscal policy being the major tool employed (Peter and Simeon, 2011). Fiscal policy remains a critical instrument for steering the economy toward growth and development, particularly in addressing the costs associated with the manufacturing sector and enhancing the market for its products through the deliberate use of government revenue and expenditure. Under an expansionary fiscal stance, government reduces taxation and increases expenditure, thereby raising the purchasing power of economic agents and expanding the market for manufactured goods. This expansion signals manufacturers to increase their productive capacity in response to growing demand. Conversely, under a contractionary policy, the reverse effect is observed. In addition, fiscal policy provides the necessary legal, social, and economic framework for profitable industrial operations.

According to the manufacturing sector constitutes a significant share of industrial output in advanced economies, producing both finished goods for consumers and intermediate inputs for further production (Dickson, 2010). Charles emphasizes that manufacturing industries foster employment, support agriculture, and promote economic diversification, while also enhancing foreign exchange earnings (Charles, 2012). The rise of manufacturing industries is historically linked to the technological and socioeconomic changes of the Industrial Revolution in the 18th and 19th centuries, which began in Britain and transformed labor-intensive textile production into mechanized, fuel-driven processes. In contemporary Nigeria, however, the manufacturing sector faces persistent challenges, including low productivity driven by inadequate electricity supply, trade liberalization, globalization, smuggling of foreign goods, high exchange rates, and insufficient government expenditure. Consequently, the sector's weak performance is largely attributed to heavy dependence on imported finished products, limited financial support, and other external shocks, leading to reduced capacity utilization and output (Tomola et al., 2012). For instance, the sector's contribution to GDP fluctuated between 1990 and 2010, declining from 5.5% in 1990 to 2.22% in 2010, despite capacity utilization increasing from 40.3% to 58.92% within the same period (CBN, 2011).

Furthermore, high lending interest rates have escalated production costs in the Nigerian manufacturing sector, thereby limiting growth (Adebiyi, 2001; Adebiyi and Babatope, 2004; Rasheed, 2010). Okafor also noted that weak budget implementation and difficulties in accessing raw materials continue to constrain industrial performance (Okafor, 2012). These fluctuations in manufacturing's share of GDP and capacity utilization underscore the sector's potential role in job creation, technological advancement, equitable wealth distribution, and overall macroeconomic stability when efficiently managed.

Given the importance of fiscal policy in shaping manufacturing outcomes, this study is particularly relevant to Nigeria, where the sector's output and capacity utilization have experienced significant instability in recent years. Since fiscal policy can stimulate aggregate demand through increased spending or tax reductions, its effective application is crucial in promoting stability and growth within the manufacturing sector. The rest of the paper is structure as; literature review in section 2, that comprised - Theoretical, methodological and empirical literature review, the section 3 is methodology and the last section which is section 4 is the conclusion.

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2. Literature Review

The Central Bank of Nigeria defines fiscal policy as the use of government expenditure and tax revenue to influence overall economic performance (The Central Bank of Nigeria, 2011). Similarly, some researcher describe it as the process through which government manages the economy by adjusting its income and spending to achieve desired macroeconomic objectives (Peter and Simeon, 2011). The two primary instruments of fiscal policy are taxation and public expenditure, both of which influence aggregate demand, resource allocation, income distribution, and the general level of economic activity (David, 2005; Mark and Asmaa, 2009; Chirag, 2010). In essence, fiscal policy refers to the use of the government budget to regulate and stimulate economic activities.

According to fiscal policy encompasses government spending, taxation, and borrowing, which directly affect aggregate demand, output, and job creation (Geoff, 2012). It is essentially the government's mechanism for shaping macroeconomic conditions by altering tax rates, interest rates, and expenditure levels to stabilize or stimulate the economy. More broadly, fiscal policy represents the deliberate adjustment of public finances to monitor and influence national economic outcomes.

Various scholars identify the goals of fiscal policy to include the promotion of employment opportunities, attainment of full employment, stabilization of domestic prices, economic growth through industrialization, equitable income distribution, exchange rate stability, and an increase in investment levels (Anyanwu, 2004; Omitogun and Ayinla, 2007; Abeng, 2009; CBN, 2010; Ogbole, Sonny and Isaac, 2011). Akpapan views fiscal policy as a key tool of macroeconomic management, involving the purposeful use of revenue (largely from taxation) and government spending to regulate the level of economic activities (Akpapan, 1994). It entails both raising revenue and determining expenditure patterns to achieve macroeconomic targets such as higher per-capita income, lower unemployment, balance of payments stability, and price stability—objectives that ultimately contribute to economic growth.

Broadly, fiscal policy refers to government spending and revenue decisions aimed at shaping economic outcomes. In the short run, fiscal adjustments can influence the level of GDP by altering taxation and expenditure. Expansionary fiscal policy, which involves increasing government spending, reducing taxes, or both, is typically adopted to stimulate economic activity. Conversely, contractionary fiscal policy, which involves reducing government spending, increasing taxes, or both, is designed to slow economic activity. A fiscal deficit (spending exceeding revenue) reflects an expansionary stance, while a surplus (revenue exceeding spending) indicates contraction.

From the perspective of policymakers, expansionary fiscal policy is employed to boost GDP growth and related indicators such as employment and household income. However, sustained fiscal expansion can generate side effects, including higher interest rates, inflationary pressures, exchange rate distortions, and trade imbalances, which may undermine long-term economic stability. On the other hand, contractionary fiscal measures can help prevent economic overheating but may also risk slowing growth or inducing recession. The effectiveness of fiscal policy in influencing GDP largely depends on the phase of the business cycle—whether the economy is in expansion or recession (Stein, 1968). Afam also emphasizes that fiscal policy involves raising government revenue through taxation and determining expenditure levels in order to influence economic outcomes (Afam, 2012).

From these perspectives, fiscal policy can be broadly understood as the government's deliberate use of taxation and expenditure to achieve macroeconomic goals such as full employment, price stability, sustainable growth, and external balance. In Nigeria, successive governments have consistently implemented wide-ranging fiscal policy measures to stimulate economic growth and activity. The critical question, however, remains: to what extent have fiscal policy instruments contributed to stabilizing growth in the manufacturing sector through their impact on GDP?

2.1 Theoretical Literature

2.1.1 Savers-Spenders theory of fiscal policy

The Savers-Spenders theory, originally developed by Mankiw and later applied by Matsen, Sveen, and Torvik, emerged as an alternative framework due to inconsistencies observed in the Barro-Ramsey model of infinitely-lived families and the Diamond-Samuelson overlapping generations theory (Mankiw, 2000 Matsen et al., 2008; Barro-Ramsey, 1974; Diamond-Samuelson, 1965). This theory seeks to explain the dynamics of fiscal policy within the economy and is built on a set of key propositions (Mankiw, 2000).

The first proposition emphasizes that temporary tax changes significantly influence the demand for goods and services. It explains that although spenders benefit from higher disposable income through tax reductions, this gain is offset by either future higher tax liabilities or reduced tax refunds. Consequently, consumers should recognize that their lifetime resources remain unchanged, implying that additional disposable income ought to be saved in anticipation of future tax obligations.

The second proposition focuses on government debt and its crowding-out effect on capital accumulation in the long run. It argues that increased consumption reduces investment, thereby lowering economic growth by diminishing capital formation while raising the marginal product of capital. At the same time, higher interest rate margins may encourage savers to increase savings. The implication of this for Nigeria is that excessive consumption and elevated interest rates hinder manufacturing sector growth, which in turn slows down overall economic expansion.

The third proposition highlights the impact of government debt on steady-state inequality. A higher level of debt necessitates increased taxation to service interest payments. While the tax burden affects both savers and spenders, the interest income accrues only to savers. This dynamic benefits savers by raising their income and consumption levels, while reducing the disposable income and consumption capacity of spenders.

2.1.2 Managerial theory of the firm

The theory, originally proposed in their work Business Behaviour, Value and Growth, posits that for an economy to achieve rapid growth through industrialization, public expenditure must be increased to support the developmental process (Bumole, 1967; Eze and Ogiji, 2013). It stresses that a firm's decision to expand or remain stagnant is largely influenced by fiscal policy, as industrial growth is driven by government spending on industrialization. In essence, government expenditure serves as a catalyst for industrial productivity. Additionally, the theory asserts that managers are employed primarily to maximize revenue rather than profit. This theoretical perspective forms the foundation of the present study.

2.1.3 Methodological Literature Review

Scholars investigating fiscal policy and sectoral performance in Nigeria have adopted diverse econometric approaches depending on the objectives of their studies. For instance, Abula and Ben employed the Ordinary Least Squares (OLS) regression technique to examine the impact of public agricultural expenditure on agricultural output between 1981 and 2014, emphasizing time-series analysis of disaggregated data (Abula and Ben, 2016). Similarly, Aina and Omojola used time-series econometric methods to assess the effect of government expenditure on agricultural output in Nigeria from 1980 to 2013 (Aina and Omojola, 2017). Both studies highlight the relevance of classical regression frameworks for evaluating government spending, though they also acknowledge limitations such as potential endogeneity issues.

Other scholars have employed more advanced models to capture the dynamic relationships between fiscal policy variables and economic growth. For example, Nurudeen and Usman adopted a disaggregated time-series analysis to evaluate government expenditure and economic growth in Nigeria, while other researchers also used time-series regression techniques to examine the effects of public expenditure across different sectors (Nurudeen and Usman, 2010; Nworji et al., 2012). However, some researcher applied the Fully Modified Ordinary Least Squares (FMOLS) technique, which corrects for serial correlation and endogeneity, thereby producing more robust estimates in analyzing the relationship between fiscal policy and agricultural sector output (Zirra and Ezie, 2017). Their methodological choices underline the shift toward advanced estimation procedures for addressing econometric challenges.

In addition, some researchers have incorporated causality and error correction frameworks in their methodology. Eze and Ogiji, for instance, employed an Error Correction Model (ECM) to analyze the impact of fiscal policy on manufacturing sector output, which allowed them to capture both the short-run dynamics and the long-run equilibrium relationship (Eze and Ogiji, 2013). Similarly, Peter and Simeon relied on econometric modeling of fiscal policy variables spanning 1970–2009, applying both regression and diagnostic tests to ensure reliability (Peter and Simeon, 2011). Collectively, these methodological approaches demonstrate a progression in fiscal policy research in Nigeria, moving from basic regression analysis toward more sophisticated techniques such as ECM and FMOLS, which better account for long-run dynamics, causality, and statistical robustness.

2.1.4 Empirical Literature Review

Several studies have examined the impact of fiscal policy on sectoral and aggregate performance in Nigeria. For instance, most of researcher

investigated government agricultural expenditure and found that while such spending could enhance output, inefficiency in allocation often undermines the intended impact (Abula and Ben, 2016; Aina and Omojola, 2017). Similarly, some of researchers affirmed that fiscal policy instruments such as government expenditure have a significant but mixed effect on agricultural performance, depending largely on the nature of allocation and implementation (Lawal et al., 2018; Zirra and Ezie, 2017). These studies collectively emphasize that public expenditure, when effectively managed, has the potential to stimulate productivity in key sectors.

In the context of manufacturing, empirical studies have consistently shown a weak link between fiscal measures and industrial performance. Adebiyi and Babtope noted that institutional and interest rate frameworks constrained the financing of the Nigerian manufacturing subsector (Adebiyi and Babtope, 2004). Similarly, in some study they highlighted persistent productivity challenges in the manufacturing industry, attributing them to structural bottlenecks and ineffective fiscal interventions (Anyanwu, 2004; Rasheed, 2010). A group researcher further argued that while bank lending and monetary conditions influence manufacturing output, fiscal measures have often been inconsistent, limiting the sector's capacity to drive growth (Charles, 2012; Tomola et al., 2012).

Comparative studies also reinforce these findings. Amanja and Morrissey examined fiscal policy in Kenya and established a positive relationship between government spending and economic growth, a result that contrasts with the Nigerian case where Eze and Ogiji (2013) found limited evidence of fiscal policy improving manufacturing output (Amanja and Morrissey (2005). Similarly, in other study researchers provided mixed evidence on whether public expenditure stimulates growth, stressing that recurrent expenditure tends to be less impactful than capital expenditure (Nurudeen and Usman, 2010; Ogbole et al., 2011; Nworji et al., 2012). Some researcher supported these conclusions, showing that the composition and management of fiscal spending are crucial in determining effectiveness (Nathan, 2012; Onyemachi, 2014).

Furthermore, empirical work has also linked poor fiscal policy outcomes in Nigeria to issues of governance and mismanagement. A study emphasized that the collapse of Nigeria's manufacturing sector was partly a result of poor policy implementation and lack of infrastructure (Ajayi, 2011; Dickson, 2010). In other study, authors reinforced this by pointing to the adverse effects of global downturns and domestic cost structures on fiscal policy effectiveness (Loto, 2012; Mbelede, 2012). Similarly, stressed that without reforms in policy design and institutional accountability, fiscal interventions would continue to have limited influence on manufacturing sector performance (Afam, 2012; Enebong, 2003).

3. METHODOLOGY

3.1 Types and Sources of Data Collection

The data used in this research is purely time series. And the data used in this research work were collected from central bank of Nigeria yearly statistical bulletin and journals.

3.2 Model Specification

This study adopts and modifies the framework of David in his work titled Infant Mortality and Public Health Expenditure in Nigeria, which covered the period 1980–2016 and employed the Autoregressive Distributed Lag (ARDL) bounds testing approach alongside the Granger Causality test (David, 2018). The functional specification of the model is presented in equation (1) below:

$$IMR=f(PHEXP,IMMUN,EHRES,PrEXP \quad (1)$$

Where:

IMR = Infant Mortality Rate

PHEXP = Government Health Expenditure

IMMUN = Percentage of Child under the Age of 1 Immunized against certain diseases and infection

EHRES = External Health Resources

PrEXP = Private Health Expenditure

In this study, the model developed by David is adapted and extended through the inclusion of key variables such as gross domestic product growth rate, life expectancy, population growth rate, and the effective governance index (David, 2018). The functional specification of the model is presented in Equation (2) below:

$$IMR = f(GHE, PRHE, GDPGR, POPGR, LEXP, EGI) \quad (2)$$

In building the model for this study, multiple regression was used.

This is given as:

$Y = \beta_o + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + ... + \beta_nX_n$

Where: Y = Dependent variable.

β_o = Constant Intercept of regression equation.

$\beta_1, \beta_2, \beta_3$, = Slopes of the regression equation.

$X_1 - X_n$ = Independent variables.

Multiple regression models are adopted in this research project to determine the impact and as well the nature of relationship between fiscal policies on manufacturing sectors in Nigeria. The model is specified in linear functional form as shown below:

RMSO = F (CEXP, REXP, VAT, DOD) (1)

$RMSO = \beta_o + \beta_1CEXP + \beta_2REXP + \beta_3VAT + \beta_4DOD$ (2)

The Econometric Model used for estimation in a Linear Form is:

$RMSO = \beta_o + \beta_1CEXP + \beta_2REXP + \beta_3VAT + \beta_4DOD + \mu t$ (3)

Where β_o = the parameter which represents the intercept $\beta_1 - \beta_4$ = Coefficient or the regression parameters used in determining the significance of the effect of each of the independent variables on the dependent variable real manufacturing sector output.

RMSO = Real manufacturing sector output

CEXP = Capital expenditure

REXP = Recurrent expenditure

VAT = Value added tax

DOD = Domestic debt

μt = Error or random disturbance term

3.3 Method of Estimation

This specifies the estimation framework employed to evaluate the impact of fiscal policy on Nigeria's manufacturing sector for the period 1985–2020. In this study, the Ordinary Least Squares (OLS) technique is applied for data analysis.

3.4 Economic Criteria

The economic a priori test examines the magnitude of the parameters estimate. This evaluation is guided by economic theory to ascertain if the parameter estimate conforms to economic theories on the basis of a priori criterion, the result is expected to be:

$\beta_o > 0, \beta_1 > 0, \beta_2 > 0, \beta_3 < 0, \beta_4 < 0.$

On a priori expectations, an increase in government expenditure (both capital and recurrent) is anticipated to stimulate growth in manufacturing sector output, whereas higher taxation and rising government domestic debt are expected to reduce output in the sector. Thus, manufacturing output is expected to have a positive relationship with capital and recurrent expenditure, but a negative relationship with taxation and domestic debt.

3.5 Statistical Criteria: First Order Test

This aims at the evaluation of the statistical reliability of the estimated parameters of the model. The F-statistic, T-statistic, Coefficient of determination (R2), adjusted coefficient of determination (R2), and standard error test are used in evaluating the statistical reliability of the model.

3.6 The t-statistics

This test is employed to assess the reliability and statistical significance of each variable's coefficient. Specifically, the absolute t-value of each coefficient is compared with the critical value from the t-distribution table. If the computed t-value exceeds the table value, the coefficient is considered statistically significant and therefore suitable for inference and potential forecasting.

3.7 The F-test

The F-test is employed to examine whether a significant relationship exists between the dependent variable and the set of independent variables. In a

regression model, if the computed F-statistic exceeds the critical value from the F-table, it indicates that the independent variables collectively have a significant effect on the dependent variable. Conversely, if the calculated F-statistic is lower than the tabulated value, the independent variables are deemed to have no significant impact. Alternatively, the p-value of the F-statistic may also be used; a statistically significant p-value suggests that the model is valid and that the joint influence of the explanatory variables is meaningful.

3.8 The Coefficient of Determination (R2)

The square of the coefficient of determination (R2) or the measure of goodness of fit is used to judge explanatory power of the explanatory variables on the dependent variable. R2 denotes the percentage of variations in the dependent variable accounted for by variations in the independent variables. Thus, the higher the R2 the more the model is able to explain the changes in dependent variable. Hence, the better the regression based on ordinary least square (OLS) technique and this is why the R2 is called the coefficient of determination. However, if R2 = 1 it implies that there is 100% explanation of the variation in the dependent variable by the independent variables and this indicates a perfect fit of regression line, if R2 = 0 then the independent variables does not explain the variation in the dependent variable in anyway hence the closer R2 is to 1 the better the model fits the data.

3.9 Adjusted Coefficient of Determination (R2)

Adjusted coefficient of determination is used to determine how well a regression equation fits the sample data. The adjusted coefficient of determination is closely related with to the coefficient of determination. Adjusted coefficient of determination is a statistical measure that shows the proportion of variations explained by the estimated regression line after accounting for number of explanatory variables in the regression model i.e. after taking care of the degree of freedom. Adjusted R2 always

take values between 0 and 1. The closer adjusted R2 is to 1, the better the estimated regression equation fits or explain the relationship between variables.

3.10 Standard Error Test

The standard error of an estimate measures the extent of dispersion of the estimated coefficient around the true parameter value. A larger standard error indicates lower reliability, whereas a smaller standard error—less than half the numerical value of the parameter estimate—suggests that the estimate is statistically valid. In such a case, the null hypothesis is rejected in favor of the alternative. Otherwise, the null hypothesis is accepted.

3.11 Econometric Criteria: Second Order Test

This aims at investigating whether the assumption of the econometric method employed are satisfied or not satisfied in any particular case. To determine the reliability of the statistic criteria and also establish whether the estimates have desirable properties of un-biasedness and consistency, it also tests the validity of non-auto correlation disturbances. Here, the Durbin-Watson (D-W) statistic is used for the test. The Durbin-Watson statistics ranges between zero and four.

If D-W statistics is equal to zero, there is a perfect positive correlation

If D-W statistic is equal to four, there is a perfect negative correlation

If D-W statistic is equal to two, we accept the null hypothesis of no correlation of the error terms.

If 0<D-W< 2 there is some degree of positive serial correlation, which is stronger the closer D-W is to zero.

If 0<D-W<4 there is some degree of negative serial correlation, which is stronger when D-W is closer to four.

4. Discussion Of The Results

In this section, the study focuses on the descriptive statistics of the series and stationarity result.

4.1 Descriptive Statistic

	RMSO	REX	CEX	VAT	DOD
Mean	3.456505	3.100502	2.745420	2.021711	3.396958
Median	3.464379	3.201198	2.815318	2.159485	3.336387
Maximum	4.290915	3.909644	3.359645	2.844707	4.204768
Minimum	2.568385	1.954121	1.850758	0.701222	2.610216
Std. Dev.	0.478711	0.586241	0.358542	0.647757	0.531365
Skewness	0.033720	-0.583090	-0.555676	-0.587910	0.045111
Kurtosis	1.921046	2.141893	2.904671	2.100718	1.624119
Jarque-Bera	1.314775	2.358365	1.399717	2.465168	2.138837
Probability	0.518203	0.307530	0.496656	0.291538	0.343208
Sum	93.32563	83.71356	74.12633	54.58621	91.71786
Sum Sq. Dev.	5.958261	8.935642	3.342361	10.90932	7.341076
Observations	27	27	27	27	27

Source: Author`s compilation using Eviews 9 (2025).

4.2 Mean

The mean value for real manufacturing sector output is 3.456505, while the mean value for recurrent expenditure is 3.100502. The mean value for capital expenditure is 2.745420, while the mean value for value added tax is 2.021711. The mean value for domestic debt is 3.396958.

4.3 The Median

The median for real manufacturing sector output, recurrent expenditure, capital expenditure, value added tax and domestic debt are 3.464379, 3.201198, 2.815318, 2.159485, 3.336387 respectively.

4.4 Standard Deviation

The values of standard deviation for real manufacturing sector output, recurrent expenditure, capital expenditure, value added tax and domestic debt are 0.478711, 0.586241, 0.358542, 0.647757, 0.531365 respectively.

4.5 Skewness

The skewness from the distribution for real manufacturing sector output, recurrent expenditure, capital expenditure, value added tax and domestic debt are 0.033720, -0.583090, -0.555676, -0.587910, 0.045111 it is worthy of note that the measurement of skewness indicates not only the amount of skewness of the data set as shown in table 1 revealed that real manufacturing sector output and domestic debt are positively skewed while recurrent expenditure, capital expenditure and value added tax are negatively skewed.

4.6 Kurtosis

The measure of convexity of the curve (kurtosis) shows real manufacturing sector output 1.921046, recurrent expenditure 2.141893, capital expenditure 2.904671, value added tax 2.100718, domestic debt 1.624119, in the distribution are platykurtic since their values are lesser than three(<3) meaning that the distribution produces fewer and lesser extreme outlier than the normal distribution.

4.7 Jarque-Bera

The Jarque-Bera (JB) test measure the difference of the skewness and

kurtosis of the series with those from the normal distribution. The JB probability values for real manufacturing sector output 0.518203, recurrent expenditure 0.307530, capital expenditure 0.496656, value added tax 0.291538, domestic debt 0.343208 were greater than 0.05

showed that the data set are normally distributed.

4.8 Presentation of Result

Real manufacturing sector	0.544637	-0.128175REX	0.191817CEX	0.155559VAT	0.726580DOD
Std. Error	0.397305	0.238090	0.115481	0.225195	0.112947
t-Statistic	1.370829	-0.538347	1.661023	0.690774	6.432930
Prob.	0.1843	0.5957	0.1109	0.4969	0.0000
R-squared	0.975518				
Adjusted R-squared	0.971067	-	-	-	-
Prob (F-statistic)	0.000000	-	-	-	-
Durbin-Watson stat	0.665889	-	-	-	-

Source: Author`s compilation using Eviews 9 (2025).

4.9 Analysis of Result

The coefficient of REX is -0.128175. This implies a negative relationship between RMSO and REX. A unit increase in recurrent expenditure will bring about decrease in real manufacturing sector output by 0.128175, which does not conforms to apiori expectation. The coefficient of CEX is 0.191817 which implies a positive relationship between RMSO and CEX. A unit increase in capital expenditure will increase real manufacturing sector output by 0.191817, which conform to apriori expectation; the coefficient of VAT is 0.155559 which implies a positive relationship between VAT and RMSO. A unit increase in value added tax will increase real manufacturing sector output by 0.155559, which does not conforms to apiori expectation; the coefficient of DOD is 0.726580. This implies a positive relationship between RMSO and DOD. A unit increase in domestic debt will bring about increase in real manufacturing sector output by 0.726580, which does not conforms to apiori expectation. The constant term has a value of 0.544637 which implies that when all the explanatory variables are zero, RMSO will be 0.544637

4.10 Apiori or Economic Criteria

The parameter estimates are expected to conform to economic theory in term of their signs and magnitudes if they are to be accepted otherwise they will be rejected. This can be shown in the table below.

Table 1: Summary of economic apriori criteria

z	Variable	Expected sign	Actual sign	Decision
β_1	*REX*	Positive	Negative	Do not Conform
β_2	*CEX*	Positive	Positive	Conform
β_3	*VAT*	Negative	Positive	Do not Conform
β_4	*DOD*	Negative	Positive	Do not Conform

Source: Author`s compilation using Eviews 9 (2025).

The apriori criteria shows that capital expenditure conform to economic theory while recurrent expenditure, value added tax and domestic debt does not conform to economic theory.

4.11 Statistical Criteria

4.11.1 Standard Error Test

Decision Rule:

Reject H_0, if S.E > $\frac{1}{2}(\beta i)$

Accept H_1, if S.E < $\frac{1}{2}(\beta i)$

For β_1, the value for S.E > $\frac{1}{2}(\beta_1)$ i.e0.238090>-0.0640875, hence we reject H_0 and conclude that the parameter estimate of β_1 is not statistically significant. It means that Recurrent Expenditure has no significant impact on Real Manufacturing Sector Output; For β_2, the value of S.E> $\frac{1}{2}(\beta_2)$ i.e. 0.115481>0.0959085, hence we reject H_0 and conclude that the estimated parameter β_2 is not statistically significant. It means that Capital Expenditure has no significant impact on Real Manufacturing Sector Output; For β3, the value of S.E> $\frac{1}{2}(\beta_3)$ i.e. 0.225195 >0.0777795, hence we reject H_0 and conclude that the estimated parameter β_3 is not statistically significant i.e. Value Added Tax has no significant impact on Real Manufacturing Sector Output. S.E < $\frac{1}{2}(\beta_4)$ i.e. 0.112947 <0.36329, hence we accept the H_1 and conclude that the estimated parameter β_4 is statistically significant i.e. Domestic Debt has a significant impact on Real Manufacturing Sector Output.

4.11.2 T-test (Test of Hypothesis)

The student t-test is used to determine the significance of the individual parameter estimate and to achieve this; we have to compare the t-calculated with the t-tabulated, at n – k degree of freedom at 5% level of significance.

If β is the coefficient of the parameter,

$H_0: \beta_i = 0$ (Null Hypothesis)

$H_1: \beta_i \neq 0$ (Alternative Hypothesis)

4.12 Decision Rule

Reject H_0 if t-cal > t-tab and accept it, if otherwise.

From our data, n = 35 and k = 4

Df = n – k = 35 – 4 =31

From the statistical table, table value of t at 5% level of significance is equal to 2.040

Table 2: Summary of student t-test

Coefficient	Variable	t-calculated	t-tabulated	Decision
β_1	REX	-0.54	±2.040	Accept H_0
β_2	*CEX*	1.66	±2.040	Accept Ho
β_3	VAT	0.69	±2.040	Accept H_0
β_4	DOD	6.43	±2.040	Reject Ho

Source: Author`s compilation (2025).

From the above analysis:

β_1 is not statistically significant because we accept the null hypothesis. This means recurrent expenditure has no significant impact on real manufacturing sector in Nigeria.

β_2 is not statistically significant because we accept the null hypothesis and reject the alternate hypothesis. This means capital expenditure has no significant impact on real manufacturing sector in Nigeria.

β_3 is not statistically significant because we accept the null hypothesis. This means that value added tax has no significant impact on real manufacturing sector in Nigeria.

B_4 is statistically significant because we reject the null hypothesis. This means that domestic debt has significant impact on real manufacturing sector in Nigeria.

4.13 Coefficient of Determination (R2)

The R^2 is 0.97 which means that about 97% of the total variation in

manufacturing sector is caused by the explanatory variables (REX, CEX, VAT and DOD) while the remaining 3% is as a result of factors not capture within the model but are captured in the error term.

4.14 Test of autocorrelation

Since our Durbin Watson statistic is 0.665889, which is approximately equal to 1, we can conclude that there is a positive serial correlation in the model. However, this problem of positive serial correlation in the model was verified using serial correlation LM test. The prob chi-square value was 0.0006, revealing the absence of serial correlation.

5. Conclusion

This study examines the impact of fiscal policy on manufacturing sector output in Nigeria. The findings reveal, with concern, that government expenditure—both capital and recurrent—does not exert a statistically significant or positive effect on manufacturing output, despite the persistent rise in public spending and various government initiatives aimed at enhancing the sector's performance. This outcome may be attributed to the mismanagement of funds allocated for critical infrastructure such as electricity, roads, water, and communication. Instances of misappropriation and embezzlement by political office holders, contractors, and other stakeholders undermine the effective utilization of such resources, and those found guilty should be held accountable and penalized accordingly.

Additionally, value-added tax (VAT) was found to be statistically insignificant, indicating its ineffectiveness in generating sufficient revenue to support manufacturing growth, partly due to the exclusion of key GDP components from taxation. On the other hand, the analysis provides some evidence of a positive relationship between domestic debt and manufacturing sector output in Nigeria. Overall, the results suggest that the model demonstrates a good fit and is reliable for predictive purposes.

References

Abeng, A.N., 2009. The Nigerian economy and current economic reforms. Ibadan: Olorunnishola Publishers. Pp. 345.

Abula, M., and Ben, D.M., 2016. Impact of public agricultural expenditure on agricultural output in Nigeria (1981-2014). Asian Journal of Agricultural Extension, Economics and Sociology, 11 (2), Pp. 1-10.

Adebayo, R.I., 2011. Zakat and Poverty Alleviation: A lesson for the fiscal policy makers in Nigeria. Journal of Islamic Economics, Banking and Finance, 7 (4), Pp. 26-41.

Adebiyi, M.A., 2011. Inflation Targeting: Can we establish a stable and predictable relationship between inflation and monetary policy instrument in Nigeria and Ghana? CBN Working Paper Series.

Adebiyi, M.A., And Babtope, O.B., 2004. Institutional framework, interest rate policy and the financing of the Nigerian manufacturing sub-sector. SAGA Publication Paper Forum, South Africa.

Afam, A.M., 2012. Banking sector reforms and the manufacturing sector: The manufacturing association of Nigeria perspective. Central Bank of Nigeria Publication

Ahuja, H.L., 2013. Modern Economics, S. Chand Higher Academic, 17thRevised Edition.

Aina, G.O., and Omojola, J.T., 2017. Assessment of the effect of government expenditure on agricultural output in Nigeria (1980-2013). International Journal of Innovative Agriculture and Biology Research, 5 (4), PP. 1-7.

Ajayi, O.D., 2011. The collapse of Nigeria's manufacturing sector. The voice news magazine. Retrieved online at www.the voicenewsmagazine.com on 15/06/2012

Ajudua, E.I., and Ojima, D., 2015. Government expenditure, foreign direct investment and economic growth in Nigeria. Journal of Economics and Sustainable Development, 6 (8).

Akpapan, E.B., 1994. How to save the naira in Nigeria, macroeconomics action. Belpot Nig. Co. Abak.

Amanja, D., and Morrissey O., 2005. Fiscal policy and economic growth in Kenya. Centre for Research in Economic Development and International Trade, University of Nortingham. www.nortingham.ac.uk/economics/research/credit accessed 29/6/'10

Anyanwu, C.M., 2004. Productivity in the Nigerian Manufacturing Industry. Central Bank of Nigeria Research Department Publication. Pp. 450.

Anyanwu, J.C., 2007. Nigerian public finance. Onitsha: Joanee Education Publishers Ltd.

Baunsgaard, T., 2003. Fiscal policy in Nigeria: Any role for rules? International monetary fund working paper number WP/ 03/

Central Bank of Nigeria Economic and Financial Review, 2010.

Central Bank of Nigeria, 2011. Statement of Accounts and Annual Reports Abuja: Central Bank of Nigeria.

Charles, A.N.B., 2012. Investigating the performance of monetary policy on manufacturing sector in Nigeria. Arabian Journal of Business and Management Review, 2 (1), Pp. 12-25.

Dickson, D.A., 2010. The recent trends and patterns in Nigeria's industrial development. council for the development of social science research in Africa.

Enebong, A., 2003. Manufacturing association of Nigeria (MAN), Nigeria's imperative in the new world trade order, workshop report by African economic research consortium (AERC). Nairobi Kenya and trade policy research and training (TPRTP).

Eze, O.R., and ogiji, F.O., 2013. Impact of fiscal policy on the manufacturing sector output in Nigeria: an error correction analysis. International Journal of Business and Management Review (IJBMR),1 (3), Pp. 35-55.

Gbosi, A.N., 2007. The dynamics of productivity and unemployment Nexus: Implications for employment generation in Nigeria. Employment generation in Nigeria. Ibadan: The Nigerian economic society.

Geoff, I., 2012. Business operators question monetary policy thrust of 2013budget.The Guardian Newspaper. Sunday 21st October, 2012.

Imoisi, A., 2013. An Appraisal of fiscal policy measures and its implication for growth of the Nigerian Economy 1970-2009). Advances in Management and Applied Economics, 3 (4), Pp. 193- 204.

Lawal, A.I., Fidelis, E.O., Babajide, A.A., Obasaju, B.O., Oyetade, O., Lawal-Adedoyin, B., Ojeka, J. D., and Olaniru, O.S., 2018. The Impact of fiscal policy on agricultural output in Nigeria. Journal of Environmental Management and Tourism, 9 (7), Pp. 1428-1442.

Libanio, G., 2006. Manufacturing industry and economic growth in Latin America: A Kaldorian Approach. CEDEPLAR, Federal University of Minas, Gerais (Brazil).

Loto, M.A., 2012. Global economic downturn and the manufacturing sector performance in the Nigerian economy. Journal of Emerging Trends in Economics and Management Sciences (JETEMS), 3 (1), Pp. 38-45.

Mankiw, N.G., 2000. The Savers-Spenders theory of fiscal policy. Paper prepared for the meeting of the American Economic Association. Mark, H. and Asmaa, E. (2009). What is fiscal policy? Back to basic. Online publication, www. Google. com

Matsen, E., Sveen, T., and Torvik, R., 2008. Savers, spenders and fiscal policy in a small open economy. IMF Working Paper, Pp. 500.

Mbelede, C., 2012. Cost engineering in the manufacturing sector of the economy of Nigeria. Paper presented at the 3rd Annual Technical Conference of Institute of Appraisers and Cost Engineering, Abuja, Nigeria.

Mwafaq, M.D., 2011. Government expenditures and economic growth in Jordan: 2011 International Conference on Economics and Finance Research IPEDR4.

Nathan P.A., 2012. The Impact of fiscal policy on the Nigerian economy". International Review of Social Sciences and Humanities, 4 (1), Pp. 142-150.

Nurudeen, A., and Usman, A., 2010. Government expenditure and economic growth In Nigeria, 1970- 2008: A Disaggregated Analysis.

Business and Economics Journal, Volume 2010: BEJ-4, Published online: June 18.

Nworji I.D., Okwu A.T., Obiwuru T.C., and Nworji L.O., 2012. Effects of Public Expenditure on Economic Growth in Nigeria: A Disaggregated Time Series Analysis".International Journal of Management Sciences and Business Research, 1 (7).

Ogbole, F.O., 2010. Fiscal policy and macroeconomic performance in Nigeria. Unpublished PhD Thesis, Department of Banking and Finance, Rivers State University of Science and Technology, Port Harcourt.

Ogbole, F.O., Sonmy, N.A., and Isaac, D.E., 2011. Fiscal policy: its impact on economic growth in Nigeria. Journal of Economics and International Finance, 3 (6), Pp. 407-417.

Okafor, U.O., 2012. Analysis of the impact of fiscal policy measures on capital formation in Nigeria. Nigerian. Journal of Management and Administration, 5 (7), Pp. 34-56.

Okemini, E.B., and Uranta, D.T., 2008. Poverty and criminality in the Niger-Delta Region: A Critical Analysis. Integrated Social Management Journal, 1 (2), Pp. 1-8.

Okoye, V., and Eze, O.R., 2013. Effect of bank lending rate on the performance of Nigerian deposit money banks, International Journal of Business and Management Review, 1 (1), Pp. 34-43.

Omitogun, O., and Ayinla, T.A., 2007. Fiscal policy and nigerian economic growth. Journal of Research in National Development. 5 (2) December

Onoh, O., 2007. Dimensions of Nigeria's monetary and fiscal policies-domestic and external. Aba: Astra Meridian Publishers.

Onuorah, A.C., and Akujuobi, L.E., 2012. Empirical Analysis of Public Expenditure and Economic Growth in Nigeria. Arabian Journal of Business and Management Review (OMAN Chapter), 1 (11).

Onuorah, A.C., and Akujuobi, L.E., 2012. Empirical analysis of public expenditure and economic growth in Nigeria. Arabian Journal of Business and Management Review (OMAN Chapter), 1 (11).

Onyemachi, J., 2014. Impact of fiscal policy components on economic growth In Nigeria: An empirical trend analysis. Journal of Business and Management Review, 4 (1), Pp. 1-19.

Peter, N.M., and Simeon, G.N., 2011. Econometric analysis of the impact of fiscal policy variable on Nigeria's economic growth 1970-2009. International Journal of Economic Development Research an Investment, 2 (1), Pp. 171-183.

Punita, R., and Somaiya, K.J., 2013. Monetary policy: Its impact on the profitability of banks in India. Intermediate Business and Economics Research Journal, 5 (3), Pp. 15-19.

Rasheed, O.A., 2010. Productivity in the Nigerian manufacturing sub-sector. European Journal of Economics, Finance and Administrative Sciences, 6 (8), Pp. 1450-2275.

Sikiru, J.B., and Umaru, A., 2011. Fiscal policy and economic growth relationship in Nigeria. International Journal of Business Social sciences, 2 (17), Pp. 244-249.

Tomola, M. O., Adedisi, T. E., and Olawale, F.K., 2012. Bank lending, economic growth and the performance of the manufacturing sector in Nigeria. European Scientific Journal, 8 (3), Pp. 19-34.

Zirra, C.T.O., and Ezie, O., 2017. Government fiscal policy and agricultural sector output in Nigeria: evidence from fully modified ordinary least square (FMOLS). Journal of Research in Business, Economics and Management, 8 (3), Pp. 1434-1443.