

# The Effect of Fiscal Policy on Manufacturing Sector Output in Nigeria.

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## ABSTRACT

The objective of the paper is to investigate the effect of fiscal policy on manufacturing sector output in Nigeria between 1986 and 2021. The type of data utilized was secondary and was extracted from the Central Bank of Nigeria's 2021 statistical records. The Fully modified ordinary Least Square method of analysis was adapted in carrying out the analysis. Unit root tests were carried out on each of the variables used in the study to avoid spurious regression results, and the results confirmed variables are all stationary at first difference. The Co-integration ARDL bound test showed that long-run relationship exists between the variables, and the conditions necessary to apply the Fully Modified ordinary Least Square method (FMOLS) met. The study's insights demonstrated that fiscal policy strategies significantly bolster the outputs of the manufacturing Sector output. The article advises that the budget and national planning should earmark increased resources for foundational advancements in their fiscal plans, such as electricity and transportation, as this will augment manufacturing industry results. Additionally, tax breaks and incentives should be granted to the manufacturing sector of Nigeria economy.

**Keywords:** Fiscal Policy, Manufacturing Sector Outputs, Capital Expenditure, Recurrent Expenditure Tax Revenue.

**JEL Classification code:** C33, P32, H27

## INTRODUCTION

Fiscal policy is the means by which a government adjusts its level of spending, taxes and borrowed fund domestic and external (public debt) in order to review and influence a nation's economy. It is used along with the monetary policy which the Central Bank uses to influence money supply in a nation. In other words, fiscal policy is a major economic stabilization tool that involves measure taken to regulate and control the volume, cost and availability as well as direction of money in an economy to achieve some specified macroeconomic policy objective and to take away undesirable trends in the economy. Adams (2022), opined that before the great Britain's unemployment crises of 1920's and the great depression of the 1930's, it was generally held that the appropriate fiscal policy for the government was to maintain a balance budget. Fiscal policy of Nigeria aims to stimulate economic growth, reduce poverty, enhance the growth rate of Gross Domestic product (GDP), decrease inflation, improve the balance of payment accumulate saving and reserves, improve the exchange rate of Nigeria naira Okorie (2017).

Fiscal policy is used by a government to control the economy toward a desired objective. For instance, when government manipulates taxes and expenditure, there are many likelihoods of what could be the outcome. Example, a decrease in personal income tax will lead to an increase in consumption, which will in turn have a stimulating effect on the economy because it will increase aggregate demand. Likewise, a reduction in the tax burden on the corporate sector will stimulate investment. When government decides to increase spending, it will have expansionary effects on the economy. On the contrary, a reduction in government expenditure or an increase in tax revenues without compensatory action has the effect of contracting the economy.

The fiscal policy tools are used by governments to influence the economy. These primarily include changes in the level of taxation and government spending. To stimulate growth, taxes are lowered and spending is increased, often involving borrowing through issuing government debt. According to Olufemi (2021), the manufacturing sector provides medium to produce goods and services, facilitate good jobs and also earn the economic agents' handsome rewards. Manufacturing involves both handicrafts of human activities and at high tech by transforming of unfinished goods to finished products. In modern-day economy, industrialization is totally based on technological development of productive strategies that is transformation of an economy from traditional low production system via sustained and deliberate combination and application management techniques. It has been argued that the fastest channel by which quick and sustainable growth and development happened and achieve in any given society or economy is through industrial capacity technological innovation development, rather than human resources and level of endowed material resource.

In their work on oil price shock, fiscal policy and manufacturing sector in Nigeria, Yinka and Omosola 2020, opined that Nigeria manufacturing sector was affected by series of problems ranging from excessive dependence on imports for consumption and input materials, socio-economic infrastructure delay, capacity underutilization in the industrial sector, poor management strategies and institutional framework, and agricultural sector neglect that used to be the economic base of Nigeria economy, and also serves as a major sources of raw material to the manufacturing sector. The manufacturing sectors performance is below average, due to lack of credit facilities and infrastructural facilities as well as inadequate raw materials these had led to many jobs lost (unemployment) and folding up of many companies in Nigeria such as the textile industries and the output contribution of manufacturing sector to Nigeria GDP is on the decline (MAN, 2011).

Nigeria Government in time past has implemented some policies to address these problems such as; Small and Medium Enterprise development Agency of Nigeria (SMEDAN). The Nigeria indigenization policy (1972-1977) National economic empowerment strategy (NEEDS, 2004) Trade and liberation policy (1989). Despite all these policies, the problems in this sector persist. These problems in Manufacturing sector if not attended to in good time potent a danger to the growth and development of the economy. Therefore, the fact that the manufacturing sector of the economy is a well-known catalyst for the real growth and development of any economy and channel of job creation, under performance of this sector in the economy clearly portends a great danger for the economy.

The objective of this paper therefore, is to find out the effect of fiscal policy on manufacturing sector output in Nigeria between 1986 and 2021. This paper is very significant because it employed a better methodology approach in evaluating the paper which no previous research had not employ which is fully modified ordinary least square method, also it provided solutions to some of the problems facing manufacturing sector of the economy which is key toward achieving economic growth and development in Nigeria among these problems are: lack of access to credit facilities and shortage of raw materials.

The research motivation for this paper is that, if prompt attention is not given to these challenges in the manufacturing sector, our industries stand the chance of total collapse and the real growth domestic product might decline and the unemployment rate will increase. This paper is divided into four sections; Introduction, Materials and method, Methodology and Results and discussions.

## **MATERIALS AND METHODS**

### **Conceptual Review**

Fiscal policy represents the strategies through which a government modulates its spending and taxation levels to analyze and shape a country's economic trajectory. This is done in tandem with the monetary

policy, a tool wielded by the Central Bank to guide the flow of money in the country. Utilizing both these policies effectively can steer a country toward its macroeconomic aspirations. Put simply, fiscal policy serves as a primary economic adjustment mechanism, employing methods to supervise and adjust the quantity, value, access, and the orientation of capital within an economy. This is done to achieve certain overarching economic goals and to sidestep undesirable economic shifts, especially within the Nigerian context.

Revenue from taxes and government outlays form the most important part of fiscal policy. Other significant tools encompass government loans to fund infrastructural projects, and within some domains, grants and aid play pivotal roles. Fiscal policy essentially employs revenue generation – from both oil and non-oil sources like direct and indirect taxes – and public spending, like regular and capital outlays, as its instruments (CBN, 2021). Government spending encompasses the procurement of essential goods and services which might not be readily provided by the private sector but are crucial for societal welfare. This expenditure is funneled into areas like defense, education, infrastructure, health, agriculture, manufacturing, and social benefits. Here, capital expenses denote funds invested by organizations or governments to upgrade and oversee tangible assets like real estate, factories, and technology (CFI, 2022). Taxes, enforced payments to the government, primarily serve to finance these governmental outlays but can also dissuade the consumption of particular items. Present-day economic theories highlight taxes as a principal source of government income (Ebimobowei & Ebiringa, 2012).

The manufacturing realm acts as a linchpin in an economy, facilitating the transformation of raw resources into consumable products. As highlighted by Charles (2012), manufacturing sectors not only create job opportunities but also augment agriculture and diversify an economy, thereby bolstering foreign income streams. The emergence of manufacturing industries traces back to socio-economic shifts in Western nations during the 18th and 19th centuries, marking the Industrial Revolution, which originated in Britain and was propelled by mechanization and innovative fuel usage (Charles, 2012). Manufacturing sectors are diversified into areas like engineering, construction, electronics, energy, food, and more (CBN, 2012).

Nigeria's manufacturing landscape is majorly driven by the production of materials like cement, food, beverages, and textiles. Notably, three primary sub-sectors, namely food, beverages, and cement, contribute to approximately 77% of the nation's manufacturing yield. Recognizing the pivotal role of the manufacturing industry in fostering Nigeria's economic evolution, the government has initiated various strategies to bolster its performance. For instance, they introduced the import substitution industrialization strategy during the inaugural National Development Planning phase (1962 – 1968), which aimed to curtail finished goods importation and promoted local production (Ishola, 2012).

## **Theoretical Analysis**

### **Keynesian Growth Perspective**

This research leans heavily on the Keynesian growth perspective. Keynes (1936), in his groundbreaking macro-economic paradigm, offered short-term resolutions to the Great Depression that plagued the 1930s. He proposed that a languishing economy could rejuvenate and grow by magnifying its financial capital reserves, be it sourced domestically or internationally. Although originally aligned with classical economic beliefs, Keynes later advocated for robust government intervention, deeming it necessary for sustainable economic growth. His seminal work, "The General Theory," was a testament to his break from traditional thought, paving the way for what is now known as Keynesian economics. The scope, relevance, and evolution of his ideas have sparked numerous scholarly debates, propelling the creation of a comprehensive economic theory.

### **Empirical Reviews**

This section of the article delves into multiple academics' exploration of this subject. These include:

Ighoroje and Akpokenerere (2021) delved into fiscal strategy and the industrial arena's production in Nigeria from 1987 to 2019. Their research utilized diverse regression techniques along with the Johansen Co-integration Error rectification framework. Outcomes from their investigation indicate that fiscal strategy impacts both the long term and short term productivity of the industrial arena, whereas taxation proceeds exert a beneficial but negligible influence on the industrial production in Nigeria.

In Sydney and Araniyar's exploration (2021), they analyzed government spending and its repercussions on the industrial field in Nigeria. Their method involved the standard regression technique. Insights from their work demonstrate that governmental capital spending significantly boosts the industrial domain. They deduced that governmental strategies play a pivotal role in fostering the industrial field's expansion. However, their analysis doesn't mention the specific duration it encompasses, and no unit roots or Co-integration examination was executed.

Similarly, Yinka and Omosola (2020) collaboratively probed the correlation between oil cost fluctuations, fiscal strategies, and the manufacturing sector in Nigeria, drawing insights from SVAR data from 1981 to 2019. Information was gleaned from Nigeria's Central Bank, employing standard regression techniques as well as structured vector and aggressive frameworks. Their conclusions advocate that governmental outlays could augment revenue in the longer duration. They also discerned that manufacturing yield is collectively influenced by inflationary trends, earnings, and oil valuations.

Isreal's (2019) inquiry provides an empirical overview of fiscal strategies' influence on Nigeria's manufacturing domain from 1980 to 2017. Utilizing the Standard Regression Technique (SRT), his findings shed light on the constructive relationship between government outlays, corporate tax rates, and the manufacturing sector index. However, a negative trend was noted with the domestic debt outstanding. His analysis didn't explore the stationarity of the data through unit root tests.

Moreover, Mohamed (2019) dissected the implications of governmental outlays on Per Capita Earnings in Nigeria. Incorporating diverse regression models and error rectification techniques, the insights from his research signified a short-term negative correlation with the VEC model, pointing towards an 0.85% adjustment rate in the wake of economic fluctuations.

Uffie, Aghanen, and Augustine (2019) evaluated the interplay between fiscal strategy and the manufacturing sector's productivity in Nigeria. Utilizing the Auto-Regressive Distributed Lag (ARDL) Bounds approach, their study highlighted both short-term and long-term effects of regressors on the desired outcome. Their findings underscored the positive influence of government outlays on manufacturing productivity, while corporate taxation adversely impacted productivity due to tax complexities. The rectification model emphasized that short-term imbalances adjust over each phase in the long haul. However, their research missed incorporating all fiscal policy proxies.

Additionally, Patrick (2019) employed the VAR estimation technique to discern the relationship between fiscal strategies and external influences on Nigeria's manufacturing sector. His research insinuated that oil pricing and non-oil exports are pivotal external factors impacting fiscal strategies in Nigeria. Furthermore, while public debt did not seem to significantly affect government outlays, both external reserves and exchange rate fluctuations significantly influenced fiscal strategies. A notable limitation of his work was the absence of preliminary and post-assessment tests.

In Loto and Musa's 2018 exploration concerning the repercussions of macroeconomics & strategies on the industrial arena's efficacy in Nigeria (1981 – 2016), the Nonlinear ARDL and Bound Test methodology were utilized. Their findings identified a long-term connection between selected strategic factors and each industrial segment. The Rectification Analysis highlighted that short-term imbalances could be rectified in the longer duration without prolonged delay intervals. However, their investigation neglected to execute a

foundational root examination to gauge the data's stationarity.

In a 2018 inquiry, Ajudua and Imoisi probed the nexus between fiscal strategies and manufacturing domain productivity in Nigeria. Utilizing the Rectification Model (ECM) technique, they analyzed time-series information from 1986 – 2016 to discern connections between manufacturing productivity and fiscal strategies. Insights from their research affirmed that governmental outlays significantly and beneficially influence the manufacturing domain in Nigeria, whereas governmental earnings lacked significance.

Arikpo, Ogar, and Conrelius (2017) assessed fiscal strategy implications on the manufacturing domain's efficacy in Nigeria spanning 1988-2014. Leveraging an ex-*post facto* investigative blueprint, data was gathered from the CBN statistical digest, and the Standard Regression Technique was employed. Their outcomes showcased that growths in governmental revenues detract from manufacturing productivity in Nigeria.

Osinowo's 2015 study probed the influence of fiscal strategies on segmented productivity growth in Nigeria. Utilizing an Autoregressive Distributed Lag (ARDL) and Rectification Model (ECM), their research showed that total fiscal outlays (TEXP) have largely bolstered sector productivity, barring the agricultural domain. Furthermore, the manufacturing domain exhibited positive affiliations with all determinants. Nonetheless, the research did not conduct foundational root tests for data stationarity.

Similarly, Bakare and Osobase (2015) gauged the repercussions of fiscal and monetary strategies on the industrial realm's performance in Nigeria. Relying on a Rectification Mechanism, their findings highlighted that such policies significantly influenced the manufacturing domain's yield in both short and long horizons. However, the foundational root examination to gauge data stationarity was overlooked.

Adigwe, Echekoba, and Raymon's 2015 exploration tackled taxation as a strategic tool and its influence on Nigeria's manufacturing firms as catalysts for economic growth. Utilizing a descriptive framework alongside the ANOVA analysis via the SPSS tool, they determined that taxation, as a fiscal instrument, plays a pivotal role in the performance metrics of Nigerian manufacturing entities. They advocated for governmental responsiveness to fluctuations in the taxation milieu and other macro-environmental elements to foster adaptability in the ever-evolving manufacturing landscape.

Lastly, Eze's 2014 inquiry delved into fiscal strategy impacts on the manufacturing domain's output in Nigeria via a Rectification Analysis approach. The findings illuminated that governmental outlays significantly drive manufacturing productivity, suggesting the endorsement of expansionist fiscal policies.

## Method and Model

The foundation for this study is rooted in secondary data, with an annual frequency, sourced diligently from the esteemed publications of the Central Bank of Nigeria (CBN) statistical bulletin. The acquired data encompasses several key metrics. This includes the manufacturing sector's output, denominated in billion Naira, and pivotal fiscal policy indicators like tax revenue and government expenditure, both quantified in billion Naira.

**Research Design:** The blueprint guiding this research is the *ex-post facto* research design. This choice of design emerges as the most apt for the study's objectives, primarily because it proficiently captures the statistical interplay among multiple variables. By harnessing this design, the research not only sheds light on the prospective impact dynamics between fiscal policy and the manufacturing sector's output but also paves the way for making informed forecasts regarding these intricate relationships.

**Method of Analysis:** The research underscored the necessity of pre-estimation diagnostics, particularly in

determining the stationarity of time series data, a vital process before proceeding to the ARDL bound test that is the co-integration test so as to ascertain the long run relationship among the series. One of the primary tools employed for this purpose was the ADF unit root test. and the ARDL bound test. Once the data's stationarity is verified, the next essential step is to determine if there's a long-term relationship among the series. To navigate this, the research employed the ARDL bound test co-integration technique, which, according to Adams (2009), is a means to decipher the equilibrium relationship between non-stationary series within a framework that is stationary.

The paper notably utilized the Fully Modified Ordinary Least Square method (FMOLS) for its analysis. The choice of FMOLS stands out due to its inherent advantages. It's an enhanced version of the OLS, tailored to address non-stationary variables. Thus, even if variables aren't stationary at their base level, FMOLS ensures they are stationary at the first difference. Two pivotal conditions form the foundation for this approach: Firstly, all variables in the analysis must be integrated of order one, denoted as I(1). Secondly, there has to be co-integration present among these variables.

**Model Specification:** The objective of the investigators is to extract the examination of the influence of fiscal measures on the productivity of the manufacturing domain in Nigeria. To accomplish this, the research undertook a foundational root examination to determine the data's steadiness, and a co integration evaluation was executed. Drawing inspiration from the literature perused, the blueprint for this article took cues from Isreal's 2019 exposition regarding a factual overview of fiscal measures' impact on Nigeria's manufacturing domain spanning 1980-2017. This investigation reshaped the blueprint in the following manner: To begin with, the operational and straightforward linkage between fiscal measures and the manufacturing sector output is outlined as follows:

MSO=  $f(\text{FP})$ ..... (2) and the linear form

$$\text{MSO}_t = f(\text{CAPEXP}_t, \text{REXP}_t, \text{TRV}_t) \dots \dots \dots (3)$$

$$\text{MSO}_t = \alpha_0 + \alpha_1 \text{CAPEXP}_t + \alpha_2 \text{REXP}_t + \alpha_3 \text{TRV}_t + \mu_t \dots \dots \dots (4)$$

Where:

MSO = Manufacturing Sector Output

CAPEXP = Capital Expenditure

REXP= Recurrent Expenditure

TRV = Tax revenue

$\alpha_0$  = the intercept

$\alpha_1, \alpha_2$  are the coefficients of the total government expenditure, total revenue respectively

$\mu_t$  = disturbance term which captures the effect of other variables not included in the model.

## RESULTS AND DISCUSSION

Table 1. Descriptive Statistics

	LMANSO	LCAPEXP	LREXP	LTAXR
Mean	7.121322	5.613155	6.356646	442.0607
Median	7.248554	6.147238	6.952311	357.7322
Maximum	9.945953	7.90511	9.15413	857.0861
Minimum	3.654547	1.851599	2.04122	172.7708
Std. Dev.	1.850708	1.711763	2.045945	239.7768
Skewness	-0.286716	-0.824526	-0.496783	0.44596
Kurtosis	2.027714	2.604054	1.999245	1.535567
Jarque-Bera	1.911248	4.314217	2.983023	4.410126
Probability	0.384572	0.115659	0.225032	0.110244
Observations	36	36	36	36

Source: Authors Computation, (Eview-13), 2023

The summarized findings shown in Table 1 highlight that the yearly mean Manufacturing sector Output (MANSO) in Nigeria over a 36-year span (1986-2021) stands at 7.121 with a standard deviation of 1.8507. This suggests a deviation on both sides of the average by 5.2706, indicating that the MANSO in Nigeria has varied considerably over the analyzed duration. This variation underscores inconsistencies in the growth of manufacturing sector yields, which has remained modest over the years. This also suggests that the manufacturing sector’s trajectory has been rather erratic.

The mean values for Capital Expenditure, recurrent expenditure, and tax revenue recorded as 5.613155, 6.356646, 442.0607 respectively. The skewness for MANSO, CAPEXP, REXP, and TRV, which gauge the distribution’s form, shows coefficients of -0.286716, -0.824526, -0.496783, 0.44596. All these values being negative apart from the tax revenue and exceeding zero denote that even though the distributions lean to the negative side and tax positive, they are evenly balanced around the mean, thus not deviating from a standard distribution. Regarding the Kurtosis values for MANSO, CAPEXP, REXP, and TRV — with figures of 2.027714, 2.604054, 1.999245, and 1.535567— all below three indicates they possess platykurtic distribution flatter than normal distribution with shorter tails. The distribution summary reveals that while MANSO, CAPEXP, and REXP TAXR did not deviate from a normal distribution, This assessment is supported by the Jarque-Bera probability values of 0.384572, 0.115659, 0.225032 and 0.110244 all of which are above 0.05,

Table 2: Summary of Unit Root Text Result

Variables	ADF Test stat & mackinnon (1996) one sided P. value for the variables in brket	Mackinnon critical value at 5%	Order of integration
MSO	-3.889095(0.0243)**	-3.557759	I (1)
TRV	-8.948402(0.0000)**	-2.951125	I (1)
CAPEXP	-7.775767(0.0000)**	-3.548490	I (1)
REXP	-3.381675(0.0723)**	-3.562882	I (1)

Source: Authors Computation, (Eview-13), 2023

The findings presented in Table 2 indicate that the t-statistic values surpass both the 5% and 10% significance levels. Specifically, the p-values recorded were 0.0243, 0.0000, 0.0000, and 0.0723. Given these results, it's evident that the variables TRV, CAPEXP, and REXP are statistically significant at the 1st difference. This further suggests that the data doesn't have a unit root, confirming its stationarity.

Table 3: Cointegration Bound Test

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	27.60470	10%	2.63	3.35
		5%	3.16	4.19
		1%	4.42	5.82

Source: Authors' computation, (Eviews-13) 2023

Table 3 showcases the findings from the co-integration analysis. The F-statistic measurement, identified as 27.60470, exceeds both the lower threshold I(0) and the upper limit I(1) values, set at 3.16 and 4.19 respectively, considering the 5% confidence level. Drawing from these observations, it's plausible to conclude that there is long run relationships among the variables: fiscal policy variables and manufacturing sector output between the period 1986 to 2021.. With the unit root analysis signifying that the variables stabilize at the first order I(1), the research is poised to proceed with estimations via the fully modified Ordinary Least Square (FMOLS) technique.

Table 4: Fully Modified Ordinary Least Square (FMOLS) Dependent Variable: MSO Null Hypothesis: Series are not cointegrated

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CAPEXP	-0.850564	0.425623	-1.998399	0.0545
REXP	3.009146	0.188308	15.97988	0.0000
TRV	-6.324606	1.155022	-5.475745	0.0000
C	1430.197	366.3706	3.90369	0.0005
R-squared	0.981231	Mean dependent var	4230.304	
Adjusted R-squared	0.979415	S.D. dependent var	5646.533	
S.E. of regression	810.1352	Sum squared resid	2034589	
Long-run variance	542778.5			
F-statistic	153.8101			0.0000

Source: Authors Computation using Eview-13 (2023)

From Table 4, when capital expenditure, recurrent expenditure and tax revenue are held constant, manufacturing sector output was N 1430 billion. In other words, when government fiscal policy was held constant, manufacturers only produced N 1430 billion worth of goods. Also, Table 4 showed there is an inverse relationship between capital expenditure and manufacturing sector output, and there is a positive relationship between recurrent expenditure and the manufacturing sector output while tax revenue and manufacturing sector output had inverse relationship within the period reviewed. This means, an increase in



capital expenditure do not have positive impact on manufacturing sector output, but an increase in recurrent expenditure leads to increase in manufacturing sector output when recurrent expenditure is increase by N1billion, manufacturing sector output will increase by N3billion. But an increase in tax revenue does not have positive impact on manufacturing sector output.

The goodness of fit of model as indicated by their  $R^2$  and adjusted  $R^2$  values of 0.98 or 98 per cent and 0.97 or 97 per cent indicates that the model has a good fit. Specifically, the  $R^2$  adjusted value of 97 per cent indicates that the total variation in the observed behaviour of manufacturing sector output in Nigeria is jointly explained by the variations in capital expenditures, recurrent expenditures and tax revenue up to 97 per cent, the remaining 3 per cent is accounted for by the stochastic error term. The overall significance of the model was also tested using the F-statistic and its associated p-value of 153.81 and 0.0000 which is high and highly significant and less than 0.05 percent, 5percent. This confirmed that the high explanatory power of the model actually confirmed that the model has a good fit.

## DISCUSSION OF FINDINGS

The results of the analysis highlight that capital expenditures share an inverse relationship with the output of the manufacturing sector. During the period under review, capital expenditures did not exert a significant influence on the manufacturing sector’s output. This inverse correlation could be attributed to limited funds being channeled towards critical infrastructures, including roads, power, and rail. The scarcity of these funds might have been the factor precipitating the adverse impact of capital expenditure on the manufacturing sector’s output.

It’s noteworthy that this discovery diverges or is contrary compared to the conclusions of Ajuda and Imoisi’s 2018 research titled, “Fiscal Policy and Manufacturing Sector Output Nexus in Nigeria.” The disparity might arise due to the meager allocation for capital expenditure in the period examined, insufficient to catalyze a positive trajectory for manufacturing output.

An illuminating discovery from the study underscores that recurrent expenditure maintained a positive and significant bond with the manufacturing sector’s output in Nigeria. This relationship suggests that through government recurrent expenditure, more funds are channeled to citizens via salaries and wages. Consequently, this amplifies their purchasing power and boosts their demand for goods and services. This positive financial ripple resonates well with the manufacturing sector, bolstering its output. This particular insight when compared, finds alignment with Isreal’s 2019 study titled “Empirical Review of the Impact of Fiscal Policy on the Manufacturing Sector of the Nigerian Economy.

Final observations from the study indicate that tax revenue was inversely related to the manufacturing sector’s output. A potential reason for this could be the imposition of multiple taxes on manufacturing sector operators during the period reviewed. The implications of taxes are profound; they considerably modulate the demand for goods and services. A steeper tax rate truncates spenders’ net earnings, while a diminished tax rate or refunds elevate their incomes. This study’s deductions when compared, conflict with the findings of Adigwe, Echekoba, and Raymon in their 2015 research titled “Tax as a Fiscal Policy and Manufacturing Company’s Performance as an Engine of Economic Growth in Nigeria.” The latter unveiled a prominent connection between tax revenue and the performance of the manufacturing sector. Such contrasting insights might be rooted in the different timeframes that each study focused on.

Table 5: Post Estimation Diagnostic Test

Test Type	Prob-Value	Decision
Serial correlation (Breusch-Godfrey)	0.311000	No Serial Correlation
Normality (Jarque-Bera test)	0.000000	No Condition of Normality

The result presented in Table 5 revealed that there is no evidence of serial correlation as the p-value of 0.311000 is found to be greater than 0.05 or 5 percent. It will be observed that the probability value of the Jarque-Bera test of 0.000000 imply that, the hypothesis of normal distribution should be rejected.

## CONCLUSION

The study delves into the ramifications of fiscal policy on the manufacturing sector output in Nigeria spanning the years 1986 to 2021. Through rigorous analysis, several key insights were unearthed: A surge in capital expenditure appears to inversely affect the manufacturing sector's output. As the capital expenditure rises, the output of the manufacturing sector seems to dwindle. In contrast, an uptick in recurrent expenditures significantly boosts manufacturing sector output in Nigeria. As the recurrent expenditures rise, the output of the sector experiences a corresponding surge. The study also identified that an increase in tax revenue negatively impacts the manufacturing sector output. As tax revenue grows, the manufacturing output diminishes.

Based on these observations, the paper posits that the trajectory of the manufacturing sector's growth in Nigeria is predominantly steered by the recurrent expenditure facet of fiscal policy. Meanwhile, it seems to be less influenced by both taxation and capital expenditure. In essence, fiscal policy emerges as the pivotal variable orchestrating the ascent of the manufacturing sector in Nigeria. The study recommended:

- (i) Manufacturing operators should be granted tax holidays and rebates and there should be tax reduction on manufacturing sector.
- (ii) The budget and national planning agencies should appropriate more funds for infrastructural development in their budgetary allocation such as power, roads and rail toward increasing manufacturing sector output and performance, so as to provide necessary infrastructure.

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