The Impact of Importation on Manufacturing Output in Nigeria: Evidence from a Time-Series Analysis

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Abstract

This study examined the effect of import trade on manufacturing output in Nigeria using annual time series data from 1981 to 2023. The study employed both the Autoregressive Distributed Lag (ARDL) approach to analyze short-run and long-run dynamics, and the Toda and Yamamoto Modified Wald Granger causality test to determine the direction of causality between import trade and manufacturing output. The ARDL results indicated that import trade had a negative but statistically insignificant impact on manufacturing output in the short run, while exerting a positive and significant influence in the long run, emphasizing the importance of imported capital goods and raw materials for manufacturing growth. The causality test revealed a unidirectional causal relationship running from import trade to manufacturing output, suggesting that changes in import trade precede adjustments in manufacturing performance. Based on these findings, the study recommends that policymakers prioritize the importation of productive industrial inputs and promote domestic backward linkages to strengthen Nigeria's manufacturing sector.

Keywords: Import Trade; Manufacturing Output; ARDL Model; Granger Causality

JEL Classification: F14; O14; C32

Introduction

The manufacturing sector plays a crucial role in economic development by promoting industrialization, creating employment, and stimulating technological innovation. As part of the global agenda for sustainable development, the United Nations incorporated industrial growth, innovation, and infrastructure development into the Sustainable Development Goals (SDG 9), which highlights the need to build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation (United Nations, 2015). In pursuit of these goals, many countries have intensified efforts to strengthen their manufacturing sectors. However, achieving industrial growth has not been an easy task, particularly in developing economies facing infrastructural deficits, limited technological capacity, and weak value chains. Consequently, many nations, including Nigeria, have resorted to importation as a means of supplementing domestic production and supporting their manufacturing base (Ahmadet al., 2015; Ekeocha et al., 2022; Ezeudu& Fadeyi, 2024).

Importation refers to the process of bringing goods and services into a country from abroad for the purpose of consumption, resale, or industrial use. Specifically, import trade is defined as the buying of goods and services from foreign countries to meet domestic demands or complement local production (Todaro & Smith, 2015). Over the years, Nigeria, like many other developing countries, has increasingly relied on imports to support its manufacturing sector, especially in sourcing raw materials, capital goods, and machinery not readily available locally. This import-dependent structure has shaped the nature of industrial production in the country, where manufacturing output often hinges on the availability and cost of imported inputs (Akinlo, 2024).

To support industrial growth and reduce excessive reliance on imports, the Nigerian government has implemented various policy measures such as the Structural Adjustment Programme (SAP), local content policies, the National Industrial Revolution Plan (NIRP), and most recently, the Africa Continental Free Trade Area (AfCFTA) participation strategy. These interventions were designed to enhance competitiveness, encourage backward integration, and reduce the sector's vulnerability to external shocks. However, despite these efforts, several manufacturing firms have remained stagnant or collapsed altogether, due to factors such as unstable power supply,

foreign exchange constraints, high production costs, and regulatory inefficiencies (Ezenwaka*et al.,* 2025; Abiola, 2024; Oladipupo, 2023). The persistent decline in the sector's performance has raised concerns about the effectiveness of these policy interventions.

Despite Nigeria's substantial expenditure on importing raw materials, the manufacturing sector has not experienced commensurate growth, raising questions about the effectiveness of import-driven industrialization. In 2023, approximately ₦3.04 trillion was spent on importing raw materials for industrial activities (MAN, 2024), yet manufacturing GDP only increased marginally from ₦25,725.87 billion in 2021 to ₦28,442.90 billion in 2023. Similarly, between 2000 and 2016, Nigeria's total spending on raw material imports amounted to ₦19.5 trillion, averaging ₦2.79 trillion annually (NBS, 2001), but manufacturing GDP grew from ₦984.08 billion in 2000 to ₦8,903.24 billion in 2016, indicating a weak relationship between importation and sectoral expansion. While imported inputs are expected to enhance production efficiency, the slow pace of manufacturing growth suggests weak local value addition, infrastructural deficits, and policy inconsistencies (Okekeet al., 2025; Unegbu&Ugwunna, 2024)

There remains considerable debate in the literature regarding the impact of import trade on manufacturing output. While some studies argue that import trade enhances productivity and technological transfer, thereby fostering growth in the manufacturing sector (Pane&Patunru, 2023;Shido-Ikwu et al., 2023), others contend that excessive reliance on imports undermines domestic industries, stifles innovation, and leads to de-industrialization (Osewa, 2022). These conflicting findings place policymakers at a crossroads in deciding the most appropriate trade and industrial policies to adopt. This raises an important question: what is the effect of import trade on manufacturing output in the Nigerian context? Therefore, the objective of this study is to empirically examine the effect of importation on manufacturing output in Nigeria from 1981 to 2023, and to investigate the direction of causality between the two variables. This study is justified as it provides evidence-based insights that can inform policy adjustments aimed at balancing import trade with sustainable manufacturing growth.

Aside from the introduction, the rest of this paper is organized into four sections. Section 2 presents the review of relevant theoretical and empirical literature. Section 3 outlines the methodology. Section 4 presents and discusses the empirical results, while Section 5 concludes and provides recommendations.

Conceptual Review
Manufacturing output refers to the total value of goods produced by the manufacturing sector within a specific period, encompassing both tangible products and industrial services (Evbuomwan et al., 2021). It is a key indicator of industrial performance and economic development, often measured through indices such as the Industrial Production Index (IPI), which tracks changes in the volume of production over time. The World Bank defines manufacturing output in terms of value added, calculated as the net output after subtracting intermediate inputs from the total output, without deductions for depreciation or depletion of natural resources.

On the other hand, import trade is the economic activity that involves purchasing goods and services from foreign countries and bringing them into the domestic market for consumption, industrial use, or resale (Bello et al., 2024). Over time, import trade has played a strategic role in shaping industrial development, particularly in developing economies such as Nigeria, where reliance on imported capital goods and intermediate inputs is high. While imports can foster technological advancement and productivity by providing access to better equipment and inputs, excessive dependence on imports may undermine domestic industries by exposing them to foreign competition and exchange rate volatility (Oriakponoet al., 2024).

Stylised Facts
Figure 1 illustrates the trend of manufacturing output in Nigeria from 1981 to 2023. Output initially grew in the mid-1980s following the introduction of the Structural Adjustment Programme (SAP), but gains were limited by

inflation and infrastructure challenges. A significant rise occurred after the return to democracy in 1999, with manufacturing output surpassing ₦2 trillion by 2005 due to reforms like NEEDS. Between 2010 and 2016, output rose from ₦3,578.64 billion to over ₦8,900 billion, supported by economic diversification policies. Despite a setback during the 2015–2016 recession, the sector rebounded strongly, growing from ₦10,044.48 billion in 2017 to ₦28,442.90 billion in 2023, driven by macroeconomic stabilization, fiscal incentives, and increased domestic investment.
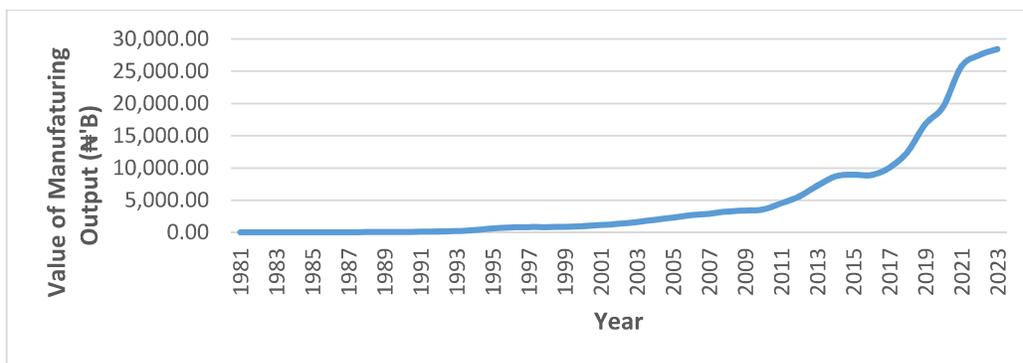
Figure 1. Value of Manufacturing Output in Nigeria ((₦'B). Source: World Bank (2023)

Figure 2 shows the trend of Nigeria's import trade as a percentage of GDP from 1981 to 2023. The ratio declined from 9.58% in 1981 to 3.03% in 1984 due to foreign exchange constraints and austerity measures, then rose to 6.65% by 1987 following SAP reforms. It peaked at 22.81% in 1997, dropped to 13.12% in 1999, and fluctuated between 10% and 22% during the 2000s and 2010s. The ratio fell to 8.23% in 2020 amid COVID-19 disruptions but rebounded to 19.05% by 2023 with the recovery of economic activity and increased demand for imported inputs
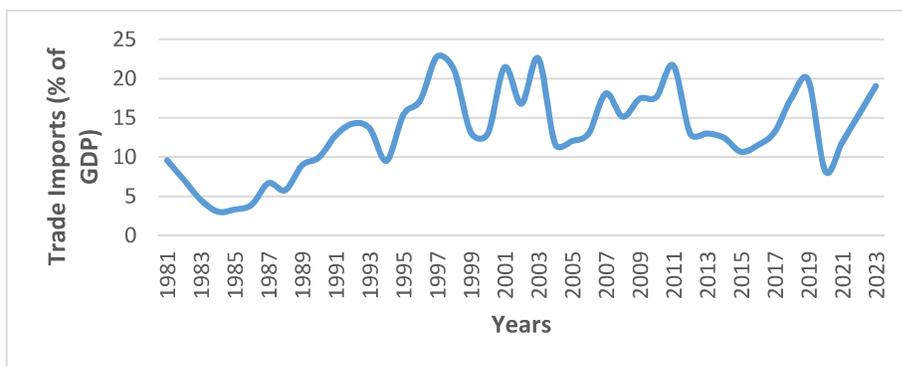
Figure 2. Imports of goods and services in Nigeria (% of GDP) Source: World Bank (2023)

Theoretical Framework
This study is anchored on the Heckscher-Ohlin (H-O) Theory of International Trade, which posits that countries will export goods that utilize their abundant and relatively cheap factors of production while importing goods that require factors in which they are relatively scarce. In the context of Nigeria, the theory helps explain the country's reliance on the importation of capital-intensive intermediate goods and technological inputs that are not readily available domestically. These imports often serve as essential inputs for the manufacturing sector, supporting production activities that cannot be efficiently sustained using local resources alone. The relevance of the H-O theory to this study lies in its ability to explain how differences in factor endowments influence trade patterns and industrial outcomes. It provides a useful framework for understanding how import trade, when strategically managed, can complement domestic production constraints and stimulate manufacturing growth. This theoretical

foundation is further supported by empirical studies such as Fankem and Oumarou (2020) and Abdullahi and Hamid (2024), which successfully applied the H-O model to explain trade-output dynamics in developing economies, thereby justifying its adoption in this research.

Empirical Review

Unegbu and Ugwunna (2024) investigated the impact of importation on the performance of Nigeria's manufacturing sector over the period 1970 to 2019. The study differentiated among imported capital goods, intermediate goods, and manufactured goods, and employed the Autoregressive Distributed Lag (ARDL) model to examine both short-run and long-run relationships among the variables. Their findings indicated that dependence on imported intermediate, capital, and manufactured goods had constrained the manufacturing sector's export potential and ultimately weakened its global competitiveness.

Okene et al. (2024) examined the relationship between exchange rate fluctuations and the performance of the manufacturing sector in Nigeria using annual data spanning from 1995 to 2022. The study employed the Ordinary Least Squares (OLS) estimation technique to analyze the interaction between exchange rate movements and manufacturing output. The empirical findings revealed that interest rate dynamics did not mitigate the adverse effects of exchange rate fluctuations on manufacturing sector performance in Nigeria.

Alugbuo et al. (2023) examined the determinants of manufacturing output in Nigeria using OLS with data from 1981 to 2021. The study found that labour force participation, government expenditure, capital formation, and capacity utilization positively and significantly influenced manufacturing output, while high lending interest rates had a negative effect. Lee (2023) analyzed the impact of imported inputs on economic growth in six Asian countries using OLS with data from 2000 to 2014. The study found that in five countries except Japan increased offshoring reduced reliance on imported inputs. In China, Indonesia, Korea, and Taiwan, the use of imported inputs boosted domestic production, positively influencing economic growth.

Joseph and Ibrahim (2022) examined the impact of Ghana's import substitution policy using VECM analysis with data from 1990Q1 to 2021Q1. The study found that the policy improved domestic production and trade balance, while the improved trade balance, import substitution, and international reserves significantly contributed to exchange rate stability.

Asaana and Sakyi (2021) investigated the determinants of import demand across 32 sub-Saharan African countries using annual data from 1990 to 2016. The study applied the imperfect substitute model of import demand and utilized the dynamic system-GMM estimation technique. The results indicated that expenditure components, relative import prices, and foreign exchange reserves were the key factors driving import demand in the region.

Methodology
Data Requirement and Source
This study was conducted in Nigeria, covering the period from 1981 to 2023. This period was selected due to the historical significance of major economic policy shifts, trade liberalization reforms, and recent developments affecting Nigeria's import trade and manufacturing output. The variables used included manufacturing output (measured in constant local currency units), imports of goods and services (expressed as a percentage of GDP), industrial sector employment (as a share of total employment), domestic credit to the private sector (as a percentage of GDP), the exchange rate (measured in local currency units per US dollar), and the inflation rate (annual percentage change). Data for these variables were sourced from the World Development Indicators (2023) and the Central Bank of Nigeria Statistical Bulletin (2023).

Empirical Model
This study adapts the model by Unegbu and Ugwunna (2024), with minor modifications to suit the objectives of the present research. The functional form is specified as follows:

$$MOP_t = (IMP_t, LAB_t, DCPS_t, EXR_t, INF_t) \qquad 1$$

In the model, MOP represents manufacturing output, IMP denotes import trade, LAB stands for the labour force, DCPS refers to domestic credit to the private sector, EXR indicates the exchange rate, and INF represents the inflation rate. The econometric specification of the model is presented as follows:

$$MOP_t = \alpha_0 + \beta_1 IMP_t + \beta_2 LAB_t + \beta_3 DCPS_t + \beta_4 EXR_t + \beta_5 INF_t + \varepsilon_t \qquad 2$$

Where α_0 is the constant, $\beta_1 \dots \beta_5$ are the parameters in the model, ε_t is the error term and t represent time. Equation (2) is specified in its logarithm form as.

$$lnMOP_t = \alpha_0 + \beta_1 lnIMP_t + \beta_2 lnLAB_t + \beta_3 lnDCPS_t + \beta_4 lnEXR_t + \beta_5 lnINF_t + \varepsilon_t \qquad 3$$

Estimation Techniques
Estimation
The estimation technique employed in this study was the Autoregressive Distributed Lag (ARDL) model developed by Pesaran et al. (2010). This approach was deemed appropriate because the unit root tests indicated that the time series variables exhibited a mixed order of integration, and the cointegration analysis confirmed the presence of a long-run relationship. The ARDL model allowed for the simultaneous estimation of both short-run and long-run dynamics, providing a flexible framework to analyze the relationships among variables with different integration orders.

The dynamic relationships in both the short and long run, as specified in equation 3, are represented in equation 4.

$$\Delta lnMFP = \beta_0 + \sum_{k=1}^{n} \beta_1 \Delta lnMFP_{t-k} + \sum_{k=1}^{n} \beta_2 \Delta lnIMP_{2_{t-k}} + \sum_{k=1}^{n} \beta_3 \Delta lnLAB_{t-k} + \sum_{k=1}^{n} \beta_4 \Delta lnDCPS_{t-k} +$$
$$\sum_{k=1}^{n} \beta_5 \Delta ln\,EXR_{t-k} + \sum_{k=1}^{n} \beta_6 \Delta ln\,INF_{t-k} + \emptyset_1 lnMFP_{t-1} + \emptyset_2 IMP_{t-1} + \emptyset_3 lnLAB_{t-1} + \emptyset_4 lnDCPS_{t-1} +$$
$$\emptyset_5 lnEXR_{t-1} + \emptyset_6 lnINF_{t-1} + \varepsilon_t \qquad (4)$$

Equation (4) investigates both the short-run and long-run effects of import trade and control variables on manufacturing output within an autoregressive distributed lag (ARDL) framework. Here, $\Delta ln"MFP"$ represents the first difference of the natural logarithm of manufacturing output, reflecting short-term changes. The coefficients β_1 to β_6 indicate the short-run elasticities of the independent variables, while the summation terms capture their lagged impacts over the short run. The parameters $\emptyset_1$ to $\emptyset_6$ represent the long-run equilibrium relationships between manufacturing output and the explanatory variables. The error term $\varepsilon\square$ captures random shocks or disturbances not accounted for by the model's variable.

The ARDL model, incorporating the error correction mechanism (ECM), is formulated as Equation (vi).

$$\Delta lnMFP = \beta_0 + \sum_{k=1}^{n} \beta_1 \Delta lnMFP_{t-k} + \sum_{k=1}^{n} \beta_2 \Delta lnIMP_{2_{t-k}} + \sum_{k=1}^{n} \beta_3 \Delta lnLAB_{t-k} + \sum_{k=1}^{n} \beta_4 \Delta lnDCPS_{t-k} +$$
$$\sum_{k=1}^{n} \beta_5 \Delta ln\,EXR_{t-k} + \sum_{k=1}^{n} \beta_6 \Delta ln\,INF_{t-k} + \pi ECT_{t-1} + \varepsilon_t \qquad (5)$$

Where π represents the is the coefficient of the error correction term, which quantifies the rate at which deviations from long-run equilibrium are corrected following short-run disturbances.

Empirical Findings
Descriptive Statistics
The descriptive statistics from 1981 to 2023 highlight key economic dynamics affecting Nigeria's manufacturing sector. Manufacturing output averaged ₦5,000.33 billion, reflecting notable growth, while import trade averaged 13.23% of GDP, showing fluctuations that suggest inconsistent trade policies and reliance on foreign goods. Industrial employment remained steady at 11.99%, indicating limited labor market transformation despite output

growth. Domestic credit to the private sector averaged 9.54% of GDP, pointing to moderate but often inadequate financial support. The exchange rate averaged ₦123.45/USD with high volatility, and inflation was unstable, averaging 18.99%, both of which posed challenges to input costs and planning.

Table 1. Descriptive Statistics

Statistic	MGDP	IMP	LAB	DCPS	EXR	INF
Mean	5000.333	13.225	11.998	9.539	123.450	18.988
Maximum	2,8442.90	22.811	17.879	19.626	450.806	72.836
Minimum	28.230	3.030	10.147	4.958	0.618	5.388
Std. Dev.	7,686.491	5.301	1.678	3.542	128.369	16.260

Source: Researchers' Computation (2025)

Unit Root Test

The unit root test using the Augmented Dickey-Fuller (ADF) method revealed that the variables had mixed integration orders some were stationary at level (I(0)) while others became stationary after first differencing (I(1)). This justified the use of the ARDL model, which is appropriate for analyzing relationships among variables with different orders of integration.

Table 2. Unit Root Test. Augmented Dickey Fuller

Variable	Level	First Diff.
MGDP	-1.910	-5.200
	(0.054)	(0.000)
IMP	-3.311	-6.169
	(0.078)	(0.000)
LAB	0.090	-3.324
	(0.996)	(0.077)
DCPS	-4.159	-6.103
	(0.011)	(0.000)
EXR	0.074	-4.997
	(0.996)	(0.001)
INF	-4.136	-6.622
	(0.012)	(0.000)

Source: Researchers' Computation (2025).Critical value: -3.450.
*Note: '***' and '**' denotes significance at 1% and 5% respectively.*

Correlation

The correlation analysis in Table 3 revealed that manufacturing output had the strongest positive association with the exchange rate (r=0.639; $\rho < 0.05$), indicating a significant link between currency fluctuations and industrial performance. Moderate positive correlations were also observed with industrial employment (r = 0.525, $\rho < 0.05$) and domestic credit to the private sector (r = 0.524, $\rho < 0.05$), suggesting that labor and credit availability supported manufacturing growth. Imports showed a weak positive correlation (r = 0.196, $\rho < 0.05$), while inflation had a negative correlation (r = -0.162, $\rho < 0.05$), implying that rising inflation negatively impacted the sector.

Table 3. Correlation Matrix

Variable	MGDP	IMP	LAB	DCPS	EXR	INF
MGDP	1.000					
IMP	0.196	1.000				
LAB	0.525	0.052	1.000			
DCPS	0.524	0.352	0.253	1.000		
EXR	0.639	0.324	0.805	0.656	1.000	
INF	-0.162	-0.109	-0.037	-0.307	-0.259	1.000

Source: Researchers' Computation (2025).

Cointegration

The result of the Bound Test presented in Table 4 provided strong evidence of a long-run relationship among the model variables. The computed F-statistic of 9.178 exceeded the upper bound critical values at the 10% (3.08), 5% (3.99), and 1% (4.64) significance levels. This led to the rejection of the null hypothesis that no cointegration existed among the variables. Therefore, the outcome confirmed a stable long-run association between manufacturing output and its determinants, supporting the application of the ARDL model to estimate both the short-run dynamics and long-run equilibrium adjustments.

Table 4. ARDL Bound Test

Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	9.178	10%	2.16	3.08
		5%	2.44	3.99
		1%	3.12	4.64

Source: Researchers' Computation (2025).

Short-run Result

The short-run regression estimates presented in Table 5 provided insightful dynamics on how both import trade and selected macroeconomic control variables affect manufacturing output in Nigeria. Notably, the lagged value of import trade showed a statistically significant negative impact, where a 1% increase in the previous year's import share led to a 0.141% decline in manufacturing output. This suggests that an increase in imports particularly of finished goods or competitive substitutes may have adversely affected domestic manufacturing by displacing locally produced products and reducing industrial demand. Similarly, the lagged industrial employment variable had a significant negative coefficient (-0.416%), indicating that higher employment levels in the previous year did not translate into higher output. This could reflect structural inefficiencies, skill mismatches, or the dominance of low-productivity jobs in the manufacturing sector.

Domestic credit to the private sector also exerted a short-run negative effect (-0.161%), revealing that increased access to finance did not immediately boost manufacturing output. This may be attributed to challenges such as poor credit allocation, inadequate infrastructure, weak industrial linkages, or high borrowing costs, which can deter productive investment. Interestingly, the exchange rate exhibited a positive and statistically significant short-run effect: a 1% depreciation in the exchange rate corresponded to a 0.128% increase in manufacturing output. This supports the notion that a weaker naira can make Nigerian-made goods more price-competitive both domestically and abroad, encouraging local production.

Inflation presented mixed effects in the short run. The lagged inflation variable had a positive and significant influence, possibly reflecting improved profit margins or pricing flexibility that encouraged production in the previous year. However, the first-differenced lag of inflation showed a significant negative relationship (-0.123%),

implying that persistent inflationary trends erode manufacturing stability by increasing production costs and reducing real consumer demand.

The error correction term was both negative and highly significant at -0.711, affirming the presence of a long-run equilibrium relationship among the variables. This indicates that about 71.1% of short-term deviations from the long-term path are corrected annually, suggesting that despite short-run fluctuations, Nigeria's manufacturing sector has a strong tendency to adjust back to its long-run growth path.

Table 5. Short Run Regression Result; Dependent Variable: MGDP

Variable	β	t-Statistic	Prob.
C	0.409	1.566	0.128
MGDP(-1)	-0.080	-1.961	0.059
IMP(-1)	-0.141	-2.015	0.053
LAB(-1)	-0.416	-1.905	0.066
DCPS	-0.161	-1.919	0.064
EXR	0.128***	3.203	0.003
INF(-1)	0.219***	5.048	0.000
D(IMP)	-0.061	-0.917	0.366
D(LAB)	1.193	1.620	0.116
D(INF)	0.125***	3.794	0.001
D(INF(-1))	-0.123***	-3.350	0.002
CointEq(-1)*	-0.080***	-13.091	0.000

Source: Researchers' Computation (2025). Note: '***' denotes significance at the 1% level.

Long-run Result
Table 6 presented the long-run regression result. As reported, import trade had positive and statistically significant effect on manufacturing output. Specifically, a 1% increase in import trade was associated with a 0.424% rise in manufacturing output. This finding suggested that in the long term, imported inputs such as machinery, technology, and raw materials played a critical role in supporting domestic industrial production. Although the short-run influence of imports was limited, the long-run significance stressed the dependence of Nigeria's manufacturing sector on global supply chains. The result supported the outcome by (Unegbu & Ugwunna, 2024)

Industrial employment and domestic credit to the private sector both had positive and significant effects on manufacturing output. A 1% increase in industrial employment led to a 0.096% rise in output, while a 1% increase in credit availability resulted in a 0.845% long-run increase. Although short-run credit effects were negative, the long-run benefits reflected the role of stable financing in boosting investment and productivity. These findings are consistent with Adeniyi (2021), Chukwu and Nduka (2022), and Musa and Magaji (2024).

The exchange rate had a negative and statistically significant effect on manufacturing output, with a 1% depreciation of the domestic currency leading to a 0.096% decline in output—consistent with the findings of Ghumro et al. (2024). Inflation, though also negatively related to manufacturing output, showed an insignificant impact, as a 1% increase in the general price level corresponded to a 0.037% decrease in output. This aligns with the results reported by Oduor et al. (2021).

Table 6. Long Run Regression Result; Dependent Variable: MGDP

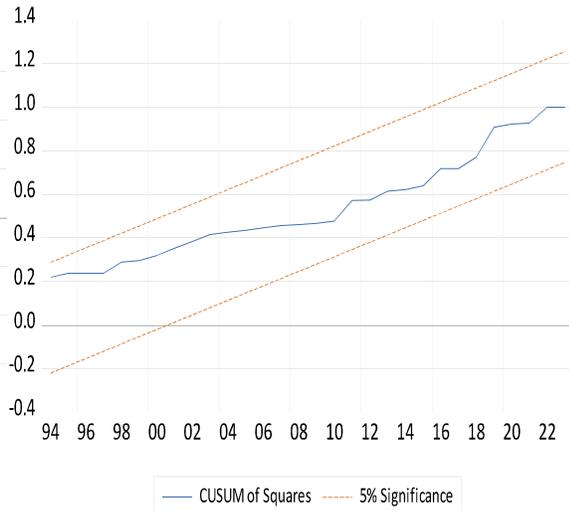| Variable	β	t-Statistic	Prob.
IMP	0.424**	2.293	0.031
LAB	0.096**	2.280	0.029
DCPS	0.845**	2.596	0.014
EXR	-0.096**	-2.280	0.029
INF	-0.037	-0.472	0.640
C	5.126	1.021	0.315

*Source: Researchers' Computation (2025). Note: '**' denotes significance at the 5% level.*

Stability Test
The results of the Cumulative Sum of Residuals (CUSUM) and Cumulative Sum of Squares of Residuals (CUSUMSQ) tests are illustrated in Figures 3 and 4, respectively. From the figures, the plotted CUSUM statistic remains within the critical boundaries, represented by the two red lines. This indicates that the estimated model maintains structural stability over the examined period. The absence of substantial deviations beyond the confidence bounds suggests that the model's parameters do not exhibit significant instability, reinforcing the reliability of the regression estimates for inference and policy formulation.
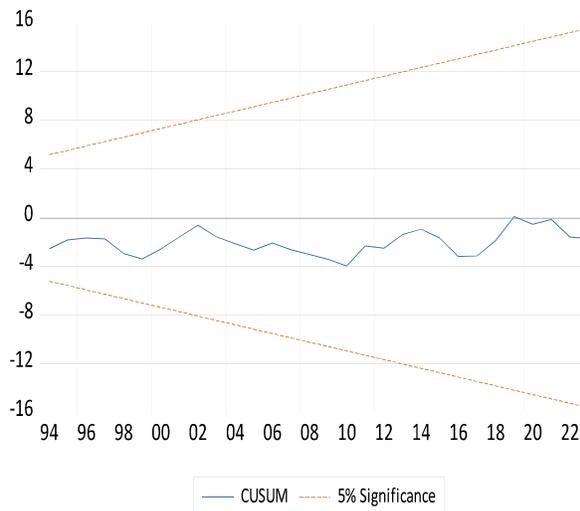
Figure 3: Cumulative Sum of Residuals   **Figure 4: Cumulative Sum of Squares of Residuals**
Source: Researcher's Computation (2024)

Granger Causality Test Using Toda and Yamamoto (1995) Approach
To examine the direction of causality between import trade and manufacturing output, the study employed the Toda and Yamamoto (1995) Modified Wald (MWALD) Granger Causality Test. The causality test results are presented in Table 8. The results of the Toda and Yamamoto causality test reveal a unidirectional causality running from import trade to manufacturing output at the 5% significance level. The Chi-square value of 6.423 with a ρ-value of 0.040 implies that past values of import trade contain useful information for predicting manufacturing output but not vice versa.

Table 8: Toda and Yamamoto (1995) Granger Causality Test Results

Dependent Variable	Explanatory Variable	Chi-square (MWALD)	p-value	Decision
Manufacturing Output	Import Trade	6.423	0.04	Reject Null Hypothesis
Import Trade	Manufacturing Output	1.537	0.463	Fail to Reject Null Hypothesis

Source: Researcher, 2025

Conclusion

The study examined the effect of import trade on manufacturing output in Nigeria using time series data from 1981 to 2023. The Autoregressive Distributed Lag (ARDL) model along with the Toda and Yamamoto Granger causality test was used. The study concluded that import trade had a positive and significant long-run impact on manufacturing output. Industrial employment exerted a positive influence on manufacturing output, which suggest that increased employment within the industrial sector contributes to higher levels of manufacturing activity. Domestic credit to the private sector contributed positively to long-run output, while exchange rate depreciation and inflation had adverse effects on manufacturing performance. The causality test further confirmed a unidirectional causality running from import trade to manufacturing output, highlighting the role of trade flows as a significant driver of industrial performance in Nigeria.

Recommendations

Based on the findings, the study recommended as follows:
  i. The Government of Nigeria should support import trade for essential manufacturing inputs.
  ii. Government should boost industrial employment through skills development and job creation.
  iii. Government should enhance manufacturers' access to affordable credit.
  iv. Government should stabilize the exchange rate to reduce production costs.
  v. Nigeria government should implement policies to control inflation and support industrial growth.

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