

Importation and Manufacturing Sector Performance in Nigeria: An Empirical Analysis

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Abstract

A profitable and robust manufacturing sector is a catalyst for any nation's sustainable growth and development. Although Nigeria's manufacturing sub-sector has the potential to shift the economy from consumption-based to a production-drive, and to foster economic linkages, it appears to be gradually collapsing. This study examined the impact of importation on manufacturing sector performance in Nigeria from 1970 to 2019. Importation was categorized into imported capital goods, imported intermediate goods, and imported manufactured goods. Models formulated in the study were estimated using the Autoregressive Distributed Lag (ARDL) test. The ARDL bounds cointegration test revealed evidence of short-run and long-run relationships among manufacturing sector performance and importation variables. The result showed that imported intermediate, capital, and manufactured goods prevent or demote Nigeria's manufacturing sector export within the period of the study. The empirical result is in line with the import dependence theory which states that imported intermediate, capital, and manufactured goods significantly prevent or demote the manufacturing sector's export in Nigeria. Based on the findings of this study, it is recommended that the government should put in place measures that will significantly increase production of processed and manufactured goods for export or provoke transformation of the structure of exports from primary commodities to processed and manufactured goods

Keywords: *Importation, Manufacturing sector performance, Nigeria.*

Introduction

The Manufacturing sector is a catalyst for structural transformation, an engine

of growth and development. It is assumed to be more dynamic than other sectors such as mining,

construction, electricity, water, and gas. The manufacturing sector is a component of the industrial sector involved in the transformation or conversion of raw materials from one state to another. The manufacturing sector refers to those industries that are involved in the manufacturing and processing of items and indulge in either the creation of new commodities or value addition (Adebayo, 2011). It comprises units engaged in the physical or chemical transformation of materials, substances, or components into new products (International Standard Industrial Classification). The manufacturing sector, like other industrial activities, creates avenues for employment and helps boost GDP, foreign exchange earnings, and economic diversification. It is one of the key elements of a development strategy in developing countries (Stiglitz, 2017).

In industrialized countries like the United States of America, the United Kingdom, and Japan the manufacturing sector is the mainstay of their economies. The experience of Asian Tigers or emerging economies attests to the crucial role of the manufacturing sector in the structural transformation of economies from subsistence, low-production, and low-income states to dynamic, diverse, high-productivity, and high-income economies (Anyanwu, 2017). Emerging economies such as Asia and Pacific regions, have the biggest manufacturing regions in the world today driven by China (Stiglitz, 2017;

Anyanwu, 2017). The Nigerian Industrial Revolution Plan (NIRP, 2014) observed that the manufacturing sector accounts for 70% of global trade but Africa accounts for less than 3% of global trade and less than 1% of manufacturing value-added. Nigeria's manufacturing share of GDP has remained less than 4% over the years. This is because Nigeria focused on exporting mostly raw materials, essentially limiting economic activities to the bottom of the value-chain pyramid. Comparing the share of manufacturing output in GDP in advanced industrialized countries with those of emerging economies, there exists strong evidence that over the years, Nigeria and other developing African countries have not been able to break through in terms of manufacturing sector performance.

The Manufacturing sector's performance can be assessed by the total manufacturing output or by its contribution to a nation's exports. Therefore, to differ from other studies, the performance of the manufacturing sector would be assessed by its contribution to Nigeria's exports in this study.

Nigeria's exports concentrated on primary commodities that limit higher export earnings. Export boosts manufacturing sector activities. Gutierrez de Pineres and Ferrantino, (2000) argued that, by providing a broader base of exports, diversification can lower instability in export earnings, expand export revenue, upgrade value-added, and enhance

growth through several channels. These include improved technical capabilities via broad scientific and technical training as well as learning by doing; facilitation of forward and backward linkages within the output of some activities that later become inputs of other activities and increase the sophistication of markets, the scale of economies, and externalities. In Nigeria, the manufacturing share of the merchandise exports has remained below 10 percent on average from 1970 to 2021. Specifically, the manufacturing share in merchandise exports increased from 3.4% in 1997 to 10.7% in 2019 (WorldBank Data, 2023). This provides a broader picture of the sector's total dependency on imports and the country may be seen as import driven economy. The Nigerian manufacturing sector can be said to be plagued with many constraints, including poor infrastructure (supply of electric power and transport systems), high cost of doing business in Nigeria, unaffordable finance due to high interest rates, policy inconsistency, few or no institutions to drive industrialization, low industrial skills, and innovation, inadequate metrology and standards, weak competition, tariff regime, consumer purchasing power, low patronage of 'made in Nigeria' goods (NIRP, 2014).

Imports are goods and services bought from other countries. In the context of this study, import is described as the extent to which an economy relies on the importation of

capital, intermediate, and consumer goods for domestic production in view to boost the growth and performance of the domestic sectors (manufacturing sector inclusive) which in turn results to aggregate economic growth (Banjoko, Iwuji & Bagshaw, 2012). The main compositions of imports are (i) consumer goods (food, drinks, electronic equipment, and tobacco, etc), (ii) capital goods (building, industrial machinery, etc), (iii) intermediate goods (raw materials, spare parts, etc), (iv) other goods (ammunition, medical & medical equipment, and chemical, etc), and (v) services (tourism and banking, etc) (Ndebbio, 1991; Ekpo 2015; World Bank, 2020). In a globalized economy, no country can avoid imports (Research and Information System Report, 2015) and imports are a key part of international trade (Egwaikhide, 2000) and the global supply chain. Nigeria has been importing capital, intermediate, and consumer goods all the time usually for production (imported intermediate and imported capital goods) and consumption (manufactured goods).

Apart from the fact that the Nigerian manufacturing sector has failed to experience growth turnaround over the years, the more alarming fact is the dramatic rise in aggregate imports of consumer, intermediate, and capital goods experienced between 1986 and 2019 in Nigeria. The economic and social costs of the slow death of the manufacturing sector and rising growth in imports in the country

may be quite enormous. Following the disturbing trends in the performances of the manufacturing sector in Nigeria, it is paramount to shift the narratives if Nigeria will achieve the overarching goals of transformation agenda and economic recovery and growth plan targeted for real industrialization with the aspirations to join the league of developed nations worldwide. Therefore, the objective of this study is to evaluate the impact of imported intermediate, imported capital, and imported manufactured goods on manufacturing sector exports in Nigeria.

The structure of this paper is as follows: section one gives the background of the study; section two provides a review of related literature; section three explains the methodology applied, section four presents the results obtained and their interpretation; finally, section five states the conclusion and recommendations.

Review of Related Literature

Conceptual Review

Manufacturing Output

Manufacturing output is an economic indicator that measures real production. Manufacturing involves the transformation of raw materials into finished or semi-finished goods. That is the measure of the ratio of output per input over time. Based on the Central Bank of Nigeria classifications, the manufacturing

sector is found under the industrial sector. In an economic sense, an increase in output is said to occur when there is an increase in the output produced, irrespective of the proportion of input in the production. The manufacturing sector reacts very fast to any instability and shocks in the business cycle.

Manufacturing exports

Economic history shows that no country has ever become rich by exporting raw materials without also having an industrial sector (NIRP, 2014). According to NIRP (2014), the more a country specializes in the production of raw materials only, the poorer it becomes. It is widely recognized that Nigeria is largely a primary commodities exporter and has been suffering from poor development outcomes and slow growth. As a price taker, Nigeria has been exposed to the vagaries of international commodity markets with a detrimental effect on the manufacturing sector and macroeconomic performance. It is acknowledged that an economy's vulnerability to exogenous economic shocks is largely determined by its degree of exposure to the global economy (Rodrik, 2010; World Bank, 2010; Briguglio, 2009). A country's exposure to external economic shocks generally depends on its reliance on exports because export earnings finance imports and also contribute directly to investment and growth. Production structures are primarily oriented towards export-led growth

countries to external shocks more than the production structures' reliance on domestic demand (Foxley, 2009).

Importation

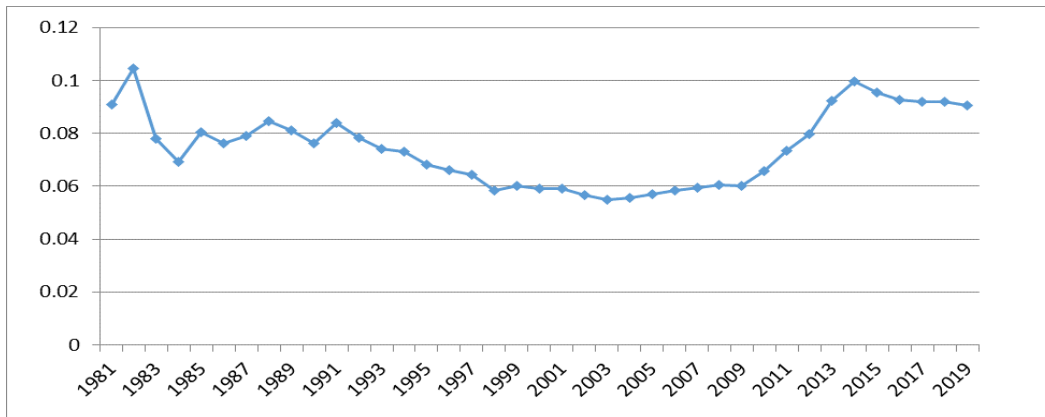
The goods and services that we buy from people in other countries are called imports. Imports are therefore of two types – visible imports and invisible imports. Visible imports are tangible goods bought from other countries. Visible items are machinery, electronic equipment, clothing, food, building and construction equipment, etc. Invisible imports are services bought from other countries. Invisible items include banking, insurance, transportation services, and payments made to foreign investors. The vast bulk of Nigeria's imports is manufactured goods. Ideally, most developing economy depends on a more developed economy for capital goods to enable them to produce intermediate and consumer goods for their livelihood and industrialization. For instance, most developing countries, including Nigeria, depend on developed countries for the production of goods through the importation of strategic raw materials (intermediate goods) and capital goods

like production equipment, computers, etc. On account of this, importation can be regarded as the degree of a country's dependence on another country for capital goods, manufactured goods and services to enable the dependent country to produce intermediate goods for industrial production and consumer goods for their livelihood (Egwaikhide, 2000).

TREND OF MANUFACTURING OUTPUT AS A PERCENTAGE OF GDP

The manufacturing sector has witnessed policy summersaults that have helped to retard growth. Figure 1 shows the dwindling trend of manufacturing output as a percentage of GDP from 1981 to 2019. Figure 1 reveals that manufacturing sector output as a percentage of GDP has been less than 1 percent. It only increased to 1 percent of the GDP in 1982 and then 2013 but has remained below 1 percent in other years. This shows that there is room for improvement in the manufacturing sector in Nigeria for it to grow at par with other developing countries.

Figure 1 Manufacturing sector output (% of GDP)(1981 -2019)



Source: Central Bank of Nigeria (2019)

The above daunting situations baffle several authors that same issues that haunt Nigeria’s manufacturing sector have lingered on for decades, between 1950 and 2019 which may have accounted for the dwindling trends of the growth of the manufacturing sector performance indicators. Some of these factors that thwarted the success of the policies and growth of the manufacturing sub-sector’s performance include heavy dependence on imported inputs and goods (Okoro, 2016); insufficient productive capabilities (Bhorat, 2016); policy inconsistency and summersaults (Okoro); and deterioration of the macroeconomic and financial environment (UNCTAD/ TRD, 2016). Enebong (2003) asserts that the level of the Nigerian manufacturing sector performance will continue to decline because manufacturers will have even more problems accessing raw materials due to stiff competition from foreign firms.

Empirical Literature Review

From the available literature, many studies have examined manufacturing sector performance from different dimensions, with emphases dwelt mostly on the manufacturing sector’s output (productivity) and other macroeconomic factors other than importations. Few studies such as Abeysinghe and Yeok (1998); and Hunegnaw (2017) focused on the manufacturing sector’s exports specifically. These previous studies have resulted in diverse outcomes, hence the need for this present study. Therefore, this review focused on the interconnection between the manufacturing sector’s performance and some macroeconomic variables such as exchange rate, interest rate, foreign direct investment, inflation, foreign reserve, trade openness, and imports.

Theoretically, it is expected that the depreciation of the exchange rate

will improve the manufacturing exports of countries. Based on that, many researchers studied the effect of the exchange rate on the manufacturing sector's performance. Sekkat & Varoudakis (2000) argued that exchange rate management matters for export performance. Hunegnaw (2017) found that exchange rate depreciation leads to an increase in manufacturing exports from East African countries. This is supported by the works of Orji (2019) and Achi (2020) who found the exchange rate to have a positive and significant effect on manufacturing sector performance. Falaye, *et al.* (2018) found that the devaluation of the naira hurt the performance of the manufacturing sector.

Contrary to the theoretical base, Abeysinghe and Yeok (1998) argued that the exchange rate does not have much impact on exports especially due to the presence of high import contents in some exported goods. Tams, *et al* (2018) found the exchange rate to have a positive but non-significant impact on manufacturing export in Nigeria

Interest rate is another variable found as a major determinant of manufacturing sector performance. Therefore, Erinma (2016) found that interest rates hurt manufacturing performance in Nigeria. This is supported by findings from Charles (2012), Ebere and Lorembor (2016), and Achi (2020) who also found that interest rates hurt manufacturing performance.

On the contrary, Horgan (2012); Imoghele, and Ismalia (2014) argued that interest rates do not have a significant impact on manufacturing performance. While Gideon *et al* (2015) argued that interest rate has a positive and significant effect on manufacturing output.

Odior (2013) found that FDI increases manufacturing productivity levels in Nigeria. Achi (2020) also supports that FDI increases manufacturing performance in Nigeria. Other empirical studies that produced strong evidence on the connection between foreign direct investment and the export of a country include Liu and Shu (2003), Kugler (2006), Abor, Adjasi and Hayford (2008), Gu, Awokuse and Yuan (2008), and Adhikary (2012). They presented evidence that FDI impacts positively on the exports of their countries. For instance, Liu and Shu (2003) find evidence for Chinese export performance; Gu, Awokuse and Yuan (2008) for China's export performance during the period 1995-2005; Abor, Adjasi, and Hayford (2008) find evidence for Ghanaian manufacturing export in the period from 1991 to 2002; Adhikary (2012) for the performance of exports of Bangladesh in the period from 1980-2009 and Eryigit (2012) finds evidence for Turkey's export that there exists a long term relationship between FDI and export volume in the country.

Inflation is another variable that has been found as a determinant of manufacturing sector performance.

Ehinomen (2012) found that inflation had a positive and significant effect on manufacturing performance. This is supported by Achi (2020) who also found that inflation has a positive effect on manufacturing performance. On the contrary, Charles (2012); and Ebere and Lorembor (2016) revealed that inflation has a negative and significant effect on manufacturing performance.

Few studies have considered importation as a determinant of manufacturing export. Jiranyakul (2012) supports causality from imports to the growth rate of the manufacturing output using data for Thailand. Mahua (2014) found that import intensity impacts the manufacturing sector and contributes to export growth in India. Oriji, et al. (2019) found that importation had a positive and significant impact on the manufacturing sector's performance. On the contrary, Ngwudinobu, Aidi, and Fadeyi (2018) argued that import penetration had a negative and significant impact on manufacturing performance. Mba & Ugwunna, (2022) also found that importation had a negative but significant impact on the manufacturing sector's performance in Nigeria.

More so, the empirical literature reviewed shows that studies that were related to importations and manufacturing sector exports were scanty in Nigeria. This present study focused on importation and manufacturing export as a measure of manufacturing sector performance

indicators in Nigeria. From a policy perspective, the results of this study will serve as a useful platform to formulate a series of new agendas and policies for manufacturing development in Nigeria.

Model Specification

The study also adopted Meade's Neoclassical growth model and utilized the works of Lee, (2007) and Aigheyisi, (2015) in selecting variables and modifying the equation for manufacturing export, as follows:

$$MEXP = f(GFCF, IMPI, IMPC, IMPMG, HUC, NEXR, LDR, FDI) \quad 3.1$$

Where MEXP is manufacturing export, K represents capital proxied for gross fixed capital formation (GFCF), IMPI denotes imported intermediate goods, IMPC represents imported capital goods, IMPMG is the imported finished goods, HUC represents human capital, NEXR denotes nominal exchange rate, LDR is the lending rate, and FDI represents foreign direct investment. The Manufacturing export is the dependent variable while gross fixed capital formation, imported intermediate goods, imported capital goods, imported finished goods, human capital, nominal exchange rate, lending rate, and foreign direct investment are the explanatory variables. Imported intermediate goods, imported capital goods and imported finished goods are proxy for importation while gross fixed capital formation, human capital, nominal exchange rate, lending rate, and

foreign direct investment are control variables. The econometric form of Equation 3.1 is presented as follows;

$$MEXP = \lambda_0 + \lambda_1 GFCF + \lambda_2 IMPI + \lambda_3 IMPC + \lambda_4 IMPMG + \lambda_5 HUC + \lambda_6 NEXR + \lambda_7 LDR + \lambda_8 FDI + \omega \quad 3.2$$

Where $\lambda_1 ; \lambda_2 ; \lambda_3 ; \lambda_4 ; \lambda_5 ; \lambda_6 ; \lambda_7 ; \lambda_8$ are the coefficient of the explanatory variables.

ω = stochastic error term

This implies that gross fixed capital formation, human capital, nominal exchange rate, lending rate, and foreign direct investment are expected to have positive effect on manufacturing export while imported intermediate goods, imported capital goods and imported finished goods are expected to have negative effect on manufacturing export in line with import dependence theory.

A Priori Expectation

In line with the theoretical expectations as well as literature observations, the independent variables are expected to exert the following signs below:

$\lambda_1 ; \lambda_5 ; \lambda_6 ; \lambda_7$ and $\lambda_8 > 0$; $\lambda_2 ; \lambda_3 ; \lambda_4 < 0$

Nature and Sources of Data

The study utilized annual time series data from 1970 to 2019 and the source of each variable is listed in Table 1 In cases where there are missing data or incomplete data, the available data were extrapolated to fill the gap.

Table 1: Summary of Data Sources

S/N	Variable	Measurement	Source
	Manufacturing Export (<i>MEXP</i>)	% of GDP	World Bank (2020)
	Imported Intermediate Goods (<i>IMPI</i>)	As a ratio of manufacturing output	CBN (2019)
	Imported Capital Goods (<i>IMPC</i>)	As a ratio of manufacturing output	CBN (2019)
	Imported Manufactured Goods (<i>IMPMG</i>)	As a ratio of manufacturing output	CBN (2019)
	Gross Fixed Capital Formation (<i>GFCF</i>)	₦'Billions	CBN (2019)
	Human Capital (<i>HUC</i>)	% of GDP	WorldBank (2020)
	Nominal Exchange Rate (<i>REXR</i>)	₦/\$	AfDB (2020)
	Interest Rate	Lending rate	CBN (2019)
	Trade Openness (<i>TRO</i>)	% of GDP	CBN (2020)
	Foreign Direct Investment (<i>FDI</i>)	₦'Billions	CBN (2020)

Source: Researchers' Compilation (2022)

Result Presentation, Analyses and Discussion of Findings

In this section, empirical analyses of the models presented in section three are conducted and the results are interpreted and explained accordingly. This section consists of result presentation and analysis, a discussion of results and policy implications of the findings of the study.

Table 2: Correlation Matrix for Equation 3

Variables	<i>MEXP</i>	<i>GFCF</i>	<i>IMPI</i>	<i>IMPC</i>	<i>IMPMG</i>	<i>HUC</i>	<i>NEXR</i>	<i>FDI</i>
<i>MEXP</i>	1.000	0.716	0.433	0.760	0.731	0.767	0.799	0.714
<i>GFCF</i>	0.716	1.000	0.349	0.613	0.649	0.789	0.755	0.544
<i>IMPI</i>	0.433	0.349	1.000	0.541	0.429	0.631	0.504	0.492
<i>IMPC</i>	0.760	0.613	0.541	1.000	0.775	0.786	0.777	0.750
<i>IMPMG</i>	0.731	0.649	0.429	0.775	1.000	0.778	0.735	0.785
<i>HUC</i>	0.767	0.789	0.631	0.786	0.778	1.000	0.705	0.719
<i>NEXR</i>	0.799	0.755	0.504	0.777	0.735	0.705	1.000	0.567
<i>FDI</i>	0.714	0.544	0.492	0.750	0.785	0.719	0.567	1.000

Source: Researchers' Computation (2022) using E-views 9.

From Table 2 we discovered that the entire pair-wise correlation matrix is not more than 0.8. We, therefore, conclude that there is no presence of multi-collinearity among the variables in model signifying that each independent variable in the model influences the dependent variable differently.

Unit Root Test Results

This Augmented Dickey-Fuller (ADF) was used for the unit root test and is summarized in Table 3 as follows:

Table 3: Augmented Dickey-Fuller (ADF) Unit Root Rest Result for the Independent Variables

VARIABLES	ADF test statistic	Critical 5%	Order of Integration	Remarks
MOUP	-3.656424	-3.513075	I(1)	Reject H ₀
<i>GFCF</i>	-4.942595	-3.533083	I(1)	Reject H ₀
<i>HUC</i>	-6.223082	-3.506374	I(1)	Reject H ₀
<i>IMPI</i>	-7.692177	-3.506374	I(0)	Reject H ₀
<i>IMPC</i>	-8.691401	-3.506374	I(0)	Reject H ₀
<i>IMPMG</i>	-7.157988	-3.506374	I(1)	Reject H ₀
<i>NEXR</i>	-5.159695	-3.506374	I(1)	Reject H ₀
<i>LDR</i>	-9.719835	-3.506374	I(1)	Reject H ₀
<i>TRO</i>	-6.184016	-3.562882	I(1)	Reject H ₀
<i>FDI</i>	-5.789164	-3.557759	I(1)	Reject H ₀

Source: Researchers' Computation (2022) using E-views 9

From the unit root test result displayed in Table 3, the dependent variable is stationary at first difference and integrated of order one $[I(1)]$. Other independent variables are stationary at first difference and integrated of order one $[I(1)]$ except for IMPI, and IMPC which are stationary at level and integrated of order zero $I(0)$. Given the mixed order of integration, we proceeded in testing for cointegration using the ARDL bound technique.

Table 4: ARDL Bounds Test Result for the Model

Test- statistic	Value	K
F-statistic	5521.474	8
Critical Value Bound		
Significance	I(0)	I(1)
5%	2.22	3.7

Source: Researchers' Computation (2022) with E-views 9.

The ARDL bound test result displayed in Tables 4, the F-statistic values of the Models is above the upper critical bounds at a 5% level of significance. Hence, we reject H_0 and accept H_1 then conclude that the variables specified in the model are cointegrated. The result implies that there exists a long-run relationship between the dependent and independent variables. However, the Granger theorem states that if two variables X and Y are co-integrated, the relationship between the two can be expressed as an error correction mechanism (Gujarati, Porter & Gunasekar, 2012). This means that in the shortrun, there may be disequilibrium which will warrant treating the error terms in the equation as equilibrium errors.

Data/Result Analysis

The bounds test result indicated the presence of long-run relations among the variables. Table 5 shows the long-run coefficients of the model obtained using ordinary least squares.

Table 5. Long run estimated result for Equation

Dependent Variable	MEXP		
Variable	Coefficient	t-Statistic	Probability
LGFCF	0.655516	3.546596	0.0010
IMPI	-0.000218	-3.068370	0.0058
IMPC	-0.000292	-3.875691	0.0063
LIMPMG	-0.281665	-3.555342	0.0017
LHUC	1.832346	2.319183	0.0044
NEXR	0.005213	1.225253	0.2275
LDR	-0.057540	-2.259961	0.0048
FDI	-0.068420	-0.518823	0.6067

<i>ECM5(-1)</i>	-0.382810	-2.645274	0.0117
R-squared	0.692548		
F-statistic and Prob(F-statistic)	11.54427 (0.000000)		

Source: Researchers' Computation (2022) with E-views 9.

The result in Table 5 shows that a unit increase in (GFCF, HUC, and NEXR) in Nigeria will increase Nigeria's manufacturing sector export (MEXP) by 66%, 1.83 units, and 0.5% respectively. While a unit increases in IMPI, IMPC, IMPMG, LDR and FDI decrease MEXP by 0.021%, 0.029%, 28%, 5.7% and 6.8% respectively. On the other hand, the t-test statistics show that GFCF, IMPI, IMPC, IMPMG, HUC and LDR are statistically significant with MEXP; while FDI and NEXR are statistically insignificant with MEXP. The R-squared shows that about 69.2% of the change in MEXP is explained by changes in the independent variables (GFCF, IMPI, IMPC, IMPMG, HUC, LDR, NEXR, and FDI). Furthermore, the ECM5(-1) value indicates that it will require about 38.2% changes for the dependent and independent variables to adjust to equilibrium in the short run.

Diagnostic Tests

Test for Autocorrelation. The Durbin-Watson (D-W) test result shows that computed D-W for the model is 1.972. While the result from Durbin-Watson (D-W) tabulated lower case (d_L) is equal to 1.160 and 1.222, Durbin-Watson (D-W) tabulated upper

case (d_U) is equal to 1.803 and 1.726 respectively. Using the rule of thumb, we conclude that there is no evidence of autocorrelation with a first-order scheme in the specified models.

Test for Heteroskedasticity: From the Breusch-Pagan test decision rule which states, reject H_0 if the calculated χ^2 is greater than the critical value of χ^2 at the chosen level of significance; and accept H_0 if stated otherwise or if Obs* R-squared of probability chi-square is less than 5%. From the result, the Obs* R-squares of probability chi-square of the models is 44% which is greater than 5%. We, therefore, accept H_0 and conclude that the error terms specified in model is homoscedastic.

Discussion of Findings

Table 4 indicates that imported intermediate goods, imported capital goods and imported manufactured goods conformed to a-priori expectations. This means that imported intermediate, capital, and manufactured goods prevent or demote Nigeria's manufacturing sector export within the period of the study. The empirical result is in line with the import dependence theory adopted in the study, which states that imported intermediate, capital, and manufactured goods significantly

discourages manufacturing sector's export.

For other variables, the findings show that gross fixed capital formation and human capital had a positive and significant impact on the manufacturing sector export; the exchange rate was positive and conformed to economic a priori expectations but had an insignificant impact on manufacturing exports. The empirical results also show that investment and human capital are critical factors influencing Nigeria's manufacturing exports. On the other hand, imported intermediate goods, imported capital goods, imported manufactured goods, and lending rate had a negative and statistically significant impact on manufacturing exports, while, foreign direct investment had a negative and insignificant impact on manufacturing exports. Our finding agrees with Mahua (2014) that found import intensity impacts the manufacturing sector and contributes to export growth in India. In respect of imported capital goods, the result obtained herein agrees with Jiranyakul (2012) who found that there exists a long-run relationship between manufacturing exports and imports of capital goods in Thailand. Umoh and Effiong (2013) also found trade openness had a positive impact on manufacturing performance in Nigeria. However, our study found a contrary result for imported manufactured goods and imported intermediate goods. Our finding for foreign direct investment

(FDI) disagreed with Aigheyisi (2015) who discovered that import penetration impacted positively on the performance of Nigeria's non-oil exports in the short run, though it's long-run impact was negative. In terms of the nominal exchange rate (NEXR), our finding contradicts the submission by Nwosa, Adeleke, and Kuku (2019) that the exchange rate had a significant impact on industrial production as well as the findings of Adhikary (2012); Eryigit (2012) that found strong evidence on the connection between foreign direct investment and export of a country. For instance, Eryigit (2012) finds evidence that there exists a long-term relationship between FDI and export volume in Turkey.

Policy Implication

The implication of the model principally signifies that imported intermediate goods (IMPI) imported capital goods and imported manufactured goods have a negative and significant impact on the growth of Nigeria's manufacturing sector export. It means, therefore, that the total export of all resident manufacturing sectors in Nigeria is negatively affected by imported intermediate goods (IMPI), imported capital (IMPC) and imported manufactured goods (IMPMG). Further, this result simply implies that the country's importation variables largely negate the development and structure of export goods in Nigeria. Policymakers should provide an affordable interest rate that can

stimulate investment initiatives in areas of exportable goods in Nigeria. Economically given dependency theory, importation to a large degree mocks the activities of the capital equipment installed; this in turn contributes to the decline of the aggregate export of the manufacturing sector in the country. The empirical evidence for other variables in the specification suggests that gross fixed capital formation and human capital impacted positively and were statistically significant, while the nominal exchange rate was positive and statistically insignificant to manufacturing exports. Following this connection, policymakers need to articulate policy measures aimed at stabilizing the Nigerian exchange rate, ensure proper international investment policies that will attract foreign capital inflows at the same time minimizing the outflow of same, also put in place measures that will significantly increase production of processed and manufactured goods for export or provoke transformation of the structure of exports from primary commodities to processed and manufactured goods as specified in NV20:2020.

Conclusion

From the result, the study concludes that on average Nigeria's manufacturing sector is undermined by importation which hinders economic growth and the developmental platform required in the economy. This inference is drawn based on the fact that imported intermediate goods,

imported capital goods, and imported manufactured goods impacted negatively to the manufacturing sector's export growth. It is worrisome that the manufacturing sector has suffered in the hands of imported intermediate goods, imported capital, and imported manufactured goods in Nigeria and cannot support rapid growth in the sub-sectors in its present time. This calls for improved research and deliberate actions to reposition the manufacturing sector. Besides, imported manufactured goods have contributed to the growth of the manufacturing sector in Nigeria. This is detrimental to the manufacturing sector performance in particular and the economy at large and explains the reasons why Nigeria's manufacturing sector has not been growing but rather remained import consumption-based. Several critical factors germane to the growth of the manufacturing sector identified in the study include gross fixed capital formation, human capital, nominal exchange rate, and foreign direct investment, while the lending rate pulls down the performance of the manufacturing sector. Unless these issues are tackled, Nigeria's manufacturing sector cannot be a conduit for promoting export expansion.

Recommendations

Government should emphasize the importation of capital and intermediate goods to drive development in the sector. This can help to boost the quality of Nigerian Manufactured

goods so that they can be exported to other countries. Efforts should be made to improve manufacturing exports by granting credit to private sectors and stabilizing the economy to boost the manufacturing sector. Emphasis must be placed on adding value to commodities by the manufacturing sector so that goods from Nigeria can compete with goods in other countries. Efforts must be made to boost the manufacturing sector so that the country will robustly move from consumption to production. This will make the manufacturing sector take advantage of the abundant raw materials, the population and the domestic market.

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