Import Substitution Strategy and Industrial Sector Performance in Nigeria

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Abstract

This study re-examines the import substitution strategy and its relevance in promoting rapid industrialisation in Nigeria. The variables used to buttress this relationship are: industrial output, import substitution, export promotion, non-oil export promotion, non-oil exports, imports, and trade openness. The data were collected for the period 1986-2015 and were evaluated using the Bayesian maximum likelihood estimation technique. The study found that the effect of import substitution on industrialisation is not significant; however, it had a latent effect. This indicates that the quest for replacing imported goods with local content has not been fully realised. Non-oil exports were, however, significant and affected industrial output positively, implying that if the import substitution strategy is rigorously adopted, the growth of the industrial sector will be imminent – driven by non-oil exports. In addition, the findings revealed that dependence on foreign trade poses no threat to the quest for industrialisation in Nigeria. It concluded that the strategy of import-substitution is relevant to rapid industrialisation in Nigeria. The study recommended, among others, that government should, in addition to expenditure switching to import substitution, optimise different forms of linkages within and outside the industrial sector.

Keywords: Industrialisation, import-substitution, expenditure switching, export diversification, structural transformation
JEL Classification: P33, P45

Introduction

After gaining political independence mainly in the 1960s, most African countries started to promote industrialization. The emphasis on industria-lization was based on the political conviction by African leaders that it was necessary to ensure self-reliance and reduce dependence on advanced countries. Furthermore, there was the expectation that industrialization would hasten the transformation of African countries from agricultural to modern economies, create employment opportunities, raise incomes as well as living standards, and reduce vulnerability to terms of trade shocks resulting from dependence on primary commodity exports. But during the 1970s, with successive oil shocks and an emerging debt problem, it started to become clear that import substitution industrialization was not sustainable. With the introduction of structural adjustment programmes in the 1980s, it was expected that competitive pressures would revitalize economic activity by leading to the survival of the fittest. But as Soludo, Ogbu and

Chang (2004) noted, while these policies were certainly intended to have structural effects, the conventional view is that they did not boost industrialization in the region. This created severe problems of import dependence for most African economies, especially Nigeria.

The Nigerian economy has been a 'junkyard' to several countries in terms of dumping all manner of manufactured products due to the inability of the country to achieve manufactured commodity self-sufficiency. This persistent scenario has made successive administrations in Nigeria to come up with a myriad of policies directed at dealing with the situation. However, it seems that these initiatives end up encouraging unrestrained importation of unwarranted manufactures. According to Orluwene (2014), Nigeria stands out as an example of a country since its political independence in 1960 that had tried all recommended economic reforms as strategies for economic development. Thus at this time, it is surprising that the imperatives of industrialisation, which should have been long forgotten, is still being discussed. In recent years, Nigeria have demonstrated renewed commitment to industrialization as part of a broader agenda to diversify its economy, build resilience to shocks, and develop productive capacity for high and sustained economic growth. The question, however, is: which trade strategy is required for Nigeria to adopt to attain high growth and develop its industrial potential?

The renewed commitment to promoting industrial development in Nigeria is timely. The country has been buffeted by three very serious and interrelated external shocks, namely hikes in food prices, increases in energy prices and the global financial and economic crisis (UNIDO and UNCTAD, 2011). Virtually all cases of high, rapid and sustained economic growth in modern economic development have been associated with industrialization, particularly growth in manufacturing production because primary commodity exports can lead to high but not sustained economic growth. Recent research suggests that economic development requires structural change from low to high productive activities and that the industrial sector is a key engine of growth in the development process (Lall, 2005; Rodrik, 2007; Hesse, 2008). In Nigeria, however, the industrial sector has not been significantly transformed as anticipated by the adopted policy strategies in Nigeria. It still requires a strong domestic economy that would transform Nigeria's current status of mere assemblage of imported components into an integrated industry. According to Mordi, Englama and Adebusuyi (2010), deficit infrastructural facilities (epileptic power and water supply, poor transport networks and costly telecommunication services) and low investment in the industrial sector are still major setbacks.

A traditional way of approaching the complex issues of industrialisation in Nigeria is through inward-looking development policies. This stresses the need for Nigeria to evolve its own development patterns, encourage indigenous policies of 'hands-on' in manufacturing and the development of appropriate technologies that is synonymous to the country's resource endowments. The first stage is to initially substitute simple

consumer goods hitherto imported by domestic production and then substitute for a wider range of more sophisticated manufactured items (Todaro and Smith, 2011). Bedevilling this strategy is the inability of the country to achieve agricultural self-sufficiency; hence, manufactured commodity self-sufficiency has become a mirage. This undertone stresses the need for the adoption of eclectic import-substituting strategies for industrialisation – primary inward-looking policy and secondary inward-looking policy with the ultimate benefit of greater domestic industrial diversification.

According to Bruton (1969), import substitution generally refers to a policy that eliminates the importation of the commodity and allows for the production in the domestic market. The objective of this policy is to bring about structural changes in the economy. The structural change is brought about by creating gaps in the process of eliminating imports and thus making investment possible in the non-traditional sectors.

The study therefore sought to re-evaluate the import substitution strategy to examine its contributory role to rapid industrialisation in Nigeria. The study examined the following questions: How relevant is the import-substitution strategy in achieving rapid industrialisation in Nigeria? What constraints does over-dependence on foreign trade pose in attaining industrialisation in Nigeria? What role does expenditure-switching play in sustaining import substitution as a pathway for industrialisation in Nigeria? The rest of this report is structured as follows: Section two reviews related literature and discusses the theory of structuralism; section three specifies the method of study; section four discusses the findings of the study, while section five comprises the conclusion and policy recommendations.

Review of Literature

According to Meier (1986), the import substitution strategy entails the production of consumer goods in substitution of imports for conservation of foreign exchange to solve balance of payment problems. Import substitution strategy was designed to promote native/local industries to replace foreign produced manufactured products that are consumed as imports (Ogujiuba, Nwogwugwu and Dike, 2011)**.** It is postulated that if a country continues importing virtually all products aside the machinery at the initial stage, then tendency exist that it will hamper/retard development in time to come. To Todaro and Smith (2009) import either benefits or deters economic development. Reasons being that continuous importation could bring about more presence of technology, product varieties and competition in the industry while the negative effect could lead to shrink specialization, fall in local industries output and price decrease or increase which might lead to inflation consequently discourage local producers.

Industrialisation is the process of moving resources into the industrial sector. This is common in the early stages of economic development. Yantumaki (2009) defines industrialization as a process in which economic production gradually moves away from an animate to inanimate system. They include manufacturing, construction, mining,

electricity generation and so on (Udu and Agu, 2005). It is a process of manufacturing which involves transformation or processing of raw materials into new products.

Expenditure switching is a policy intended to divert an existing level of expenditure from one outlet to another. For example, tariffs or import quotas could be used to divert existing spending from imports onto home produced goods. This is contrasted with expenditure-changing policies intended to increase or decrease total spending (Bems and Giovanni, 2016). Expenditure switching appears both in domestic markets and in foreign markets, where the substitution between domestic and foreign produced tradable goods occurs as a response to exchange rate movements (Wei, 2010). Switching into import substituting industries is perceived as a means of reducing the income elasticity of demand in the periphery for its manufacturing imports from the centre (Jayanthakumaran, 2000).

The structuralist school emerged in Latin America in the 1940s. Structuralism emphasises how structural aspects of the domestic and international economy impede the growth of developing countries. The structuralists argue that forces that make countries either rich or poor are interlinked, thus there is need to identify the mechanisms responsible for this. The proponents of the theory include Singer, Lewis and Presbisch (Jhingan, 2007). They argued that the inability of developing countries to compete with developed countries is as a result of a low wage scale and their dependency on import equipment – which are factors contributing to their underdevelopment. They further asserted that the structural changes needed to bring about economic development could only be achieved by state intervention through tax and state-owned enterprises in the internal expansion of the domestic economy to promote industrialisation. This could only be achieved by eliminating the overdependence on primary exports as the main driver of economic growth and diversifying the industrial base of the nation.

Most countries adopted structuralist policies, also known as 'import substitution' policies. According to Anyawu et al. (2010), the early phase of such policies promoted growth, while state-led policies suffered serious inefficiencies, which led to market reforms in the 1980s and 1990s in Latin America and Africa. The historical structure of underdeveloped economies being incorporated into the international economy to supply cheap raw materials and purchase finished manufactured goods from industrialised nations gave rise to enclave economies in developing countries. The export of primary products then expanded; the imports of manufacturing sector also increased. This led to dual economic structures in developing countries where the export sector coexisted with a backward industrial sector.

By the 1940s, economists in Latin America argued that export-led growth of raw materials was no longer a feasible path to economic growth and development. This was because the prices of primary products were declining, while the prices of manufactured goods were increasing (Presbisch, 1956). Deficient supply of manufactured goods also caused the process to increase due to the Second World War. These factors created large

disruptions in the economies of developing countries. Given the deteriorating terms of trade, developing countries were constrained and could not meet their import needs due to insufficient foreign exchange. The main theory that explained the declining commodity terms of trade is known as the Presbisch-Singer thesis. Presbisch (1950) and Singer (1950) argued that there was and would continue to be a long term decline in the terms of trade of primary-commodity exporters due to a combination of low income and price elasticities of demand. This decline will result in an ongoing transfer of income from poor to rich countries that could be combatted only by efforts to protect domestic manufacturing industries through a process that has come to be known as import substitution.

Due to the unfavourable terms of trade, developing countries have been doing their utmost over the past several decades to diversify into manufactures exports. After a slow and costly start (Todaro and Smith, 2011), these efforts have resulted in a dramatic shift in the composition of developing country exports, especially among middle-income LDCs. Led at first by the East Asian Tiger economies of South Korea, Taiwan, Hong Kong and Singapore, and now followed by many other countries in Asia, including China and India, and in Latin America, the share of merchandise exports accounted for by manufactured goods has risen strongly in many developing countries. Unfortunately, the structuralist policies did not bring about as many benefits to many developing nations as they had hoped, because relative prices within manufactures also diverged.

In the last few decades, prices of the basic manufactured goods exported by poor countries fell relative to the advanced products exported by advanced countries. This happened because countries that adopted the import substitution model of development began to notice in the 1960s that government-led initiatives to industrialise could not effectively create the most important phase of industrialisation – heavy machinery and plant installation. In Nigeria, the import substitution strategy accounted for a significant improvement in the industrial sector. According to Ogbuagu (1995), in the early years of its implementation, the country was virtually self-sufficient in the production of certain consumer goods like drinks and other beverages, cotton, soap, textile, tobacco, plastic goods, livestock, feeds, stationery and footwear, among others, but the momentum did not last long in Nigeria's bid for economic development. This is because most of the industries that were established under the import substitution industrialisation strategy were mostly owned, managed and controlled by foreign investors. In addition, Nigeria's dependence on the north for manufactured goods was regrettably worsened by huge increase in the import of raw materials, intermediate and capital goods. Nigeria then found herself in a more precarious dependent condition than was the case when she demanded to make a change. The country's economy is still import dependent, which stresses the need to reduce its import expenditure towards a favourable balance of trade and for sustained economic growth. This study thus sought

to re-evaluate the import substitution strategy with a view to establishing its efficacy in fostering rapid industrialisation in Nigeria.

Empirical review

Mbaegbu (2016) evaluated the industrialization strategy for economic diversification and sustainable development of Nigeria. The study hypothesised that manufacturing production did not have any significant relationship with gross domestic product in Nigeria. Data were sourced to cover the period of democratic rule, 1999 to 2015 using multiple regression analysis. The variables used include: GDP, manufacturing output, exchange rate, average capacity utilization, and commercial bank loans to SMEs. The major finding was that there existed a significant positive relationship between output of manufacturing industry and GDP. The study concluded that industrialization could be used to diversify the economy and increase the GDP and recommended that all the industrialization strategies (import substitution, export substitution, small/medium industries participation and the big push strategy) should be adopted to make manufacturing the arrow head for achieving the diversification of the Nigerian economy for sustainable development.

Bems and Giovanni (2016) carried out a study on income-induced expenditure switching. The study revealed that an income effect can drive expenditure switching between domestic and imported goods. The study used a unique Latvian scanner-level dataset, covering the period 2008–2009. The study revealed that: first, expenditure switching accounted for one-third of the fall in imports and took place within narrowly defined product groups. Second, there was no corresponding within group change in relative prices. Third, consumers substituted from expensive imports to cheaper domestic alternatives. The findings led to a re-estimation of non-homothetic consumer demand model, which explains two-thirds of the observed expenditure switching. Estimated switching is driven by income, not changes in relative prices.

Kayode (2015) in a study 'industrialization: the key to Nigerian's developmental questions' explored the potential of the industrial sector in driving growth in Nigeria. The data collected were analysed using the content analysis method. The study revealed that the active labour force and the abundant natural resources which are keys to industrialization are underutilized. The study took a cue from many Asian countries popularly referred to as Asian Tigers which attained such status through industrialization by encouraging their local (home-grown) cottage industries. The study recommended that if Nigeria must attain real economic development, there is the need to fundamentally redefine her industrialization efforts and policies.

Ekpo (2014) analytically explored Nigeria's industrial policies and industrial sector performance. The findings of the study show that the policies, identified as import substitution industrialization, export promotion industrialization and foreign private investment-led industrialization strategy have not helped Nigeria to attain the

required level of industrialization that can produce dynamic change in the economic structure of the country and the performance of industrial sector especially manufacturing had been below expectation. The policies have a common feature of foreign inputs reliance which makes their successful implementation in Nigeria very costly.

Edeme and Karimo (2014) performed a marginal impact analysis on economic liberalization and industrial sector performance in Nigeria. The findings reveal that economic liberalization has a significant impact on the performance of the manufacturing, mining and quarrying, and power subsectors, respectively and the aggregate industrial sector in Nigeria. The interaction of the policy with trade openness and financial deepening dampened the performance of the manufacturing subsector while its interaction with labour force is growth enhancing. Also the interaction of the policy with energy consumption was negative but financial deepening and energy consumption has dampening effect on the performance of the mining and quarrying subsector. Economic liberalization decreased the performance of the manufacturing subsector and was not significant on the mining and quarrying and power subsectors. In addition, financial deepening has mixed impact on the performance of the industrial sector. It has increasing impact on the aggregate industrial sector it impact on manufacturing performance is negative.

Dagogo (2014) assessed the challenges and opportunities in Nigeria's industrial development between 1943 and 2013. The study observed that there was multiplicity of industrial policies, most of which were either discontinued at their prime stages by succeeding governments or were interrupted by exogenous factors whose effects were, ab initio, never factored into these policies. It was also revealed that some of these policy changes were mere semantic differences as the concepts and models for implementation remained the same.

Ibbih and Gaiya (2013), in a cross-sectional analysis of industrialization and growth in Africa, evaluated the linkages between industrialisation and growth. Based on the Lewis–Kaldor theoretical framework, the study employed cross-sectional analysis of 54 African countries to examine this relationship. The study revealed that the structure of industry in most African economies, with the exception of Southern and Eastern African economies, are geared more towards mining and utilities industries rather than manufacturing, which is more growth stimulating. The regression analyses confirmed the relationship between industrial development and economic growth. However, industrial development on the African continent has no transfer effects across member countries.

Coker, Obo and Agba (2012) analysed the effect of direct foreign investment in Nigeria during the era of import substitution industrialization from the period 1960–1975. The study observed that in the initial stage, policy thrust tended towards and opened import-substitution market economy, which it was believed, would initiate

the take-off into rapid industrialization of the economy. The contrary was the case as Nigeria was not only rapidly becoming a dumping ground for obsolete goods and services, but also served as conduit pipe for scare capital flight to developed countries through the importation of luxury goods and raw materials for the few import substitution industries.

Jayanthakumaran (2000) examined the transition in industrialization from import substitution to export promotion. The study revealed that the import-substitution policy creates biases in the incentive structure and lowers the growth of potential exports in the long run. The study recommended that trade reforms in this respect are likely to reduce the gap between domestic and border prices. The expectation is to bring better industrial performance on the lines of comparative advantages. The benefits of import substitution have been examined extensively – a few of which have been reviewed. However, their focus differs from this study. The role of import-substitution strategy in industrialisation alongside its challenges and constraints has been adequately covered. This study however looks beyond these issues towards an empirical re-examination of the strategy. Most of the studies reviewed hovered on conceptual discussions on the subject matter without any empirical investigation.

Methodology

The study employed both descriptive statistics and the Bayesian maximum likelihood estimation approach to analyse the effects of import-substitution on industrialisation in Nigeria. Diagnostic tests were also used to examine the stability of the sample estimates. The model was estimated using data from 1986 to 2015, which were sourced from CBN Statistical Bulletin. The study adapted the model by Ibbih and Gaiya (2013) to estimate the empirical relationship. The model was modified and is specified as:

$$IDO = f(IS, EP, NEP, NOE, IMP, TOP)$$

This can be restated in stochastic form as:

$$IDO = \beta_0 + \beta_1 IS + \beta_2 EP + \beta_3 NEP + \beta_4 NOE + \beta_5 IMP + \beta_6 TOP + \mu$$

Where:

IDO	=	Industrial output (₦'billion)
IS	=	Degree of import substitution (imports/GDP)
EP	=	Degree of export promotion (exports/GDP)
NEP	=	Degree of non-oil export promotion (non-oil exports/GDP)
NOE	=	Non-oil exports (₦'billion)
IMP	=	Imports (₦'billion)
TOP	=	Trade openness (exports + imports/GDP)
μ	=	The error term
$\beta_0 - \beta_6$	=	Parameters to be estimated

Note that imports/GDP and exports/GDP have been widely used as proxies for import substitution and export promotion, respectively.

On a priori basis, the coefficients of β_1–β_4 and β_6 were expected to have a positive relationship with inflation. This implies that an increase in either will cause industrial output to increase. On the other hand, the coefficient of β_5 was expected to have negative relationship with industrial output, implying that an increase in imports will be detrimental to the growth of the industrial sector. In general, it was expected that import substitution should have a significant effect in driving industrialisation in Nigeria.

Results and Discussion

Trend of import substitution and industrialisation in Nigeria

The study utilises various data in order to examine the efficacy of the import substitution strategy in promoting industrialisation in Nigeria. Table 1 shows the contribution of the major economic sectors to GDP and reveals that the industrial sector is not the major driver of growth in Nigeria, despite the oil sector being the leading export commodity in the country.

Table 1: Sectoral contribution to GDP

Year	*AGO*	*IDO*	*BCO*	*WRT*	*SER*
1986-1990	70.928	94.67	11.736	43.82	117.04
1991-1995	367.618	441.278	34.344	246.544	394.806
1996-2000	1,311.68	1,358.62	93.804	853.878	1,318.946
2001-2005	4,364.07	3,223.73	262.804	2,201.38	4,419.784
2006-2010	10,167.99	8,115.58	1,025.97	6,972.05	13,661.19
2011-2015	16,865.19	16,738.4	2,686.33	13,920.99	29,384.18

Source: CBN Statistical Bulletin (2015)

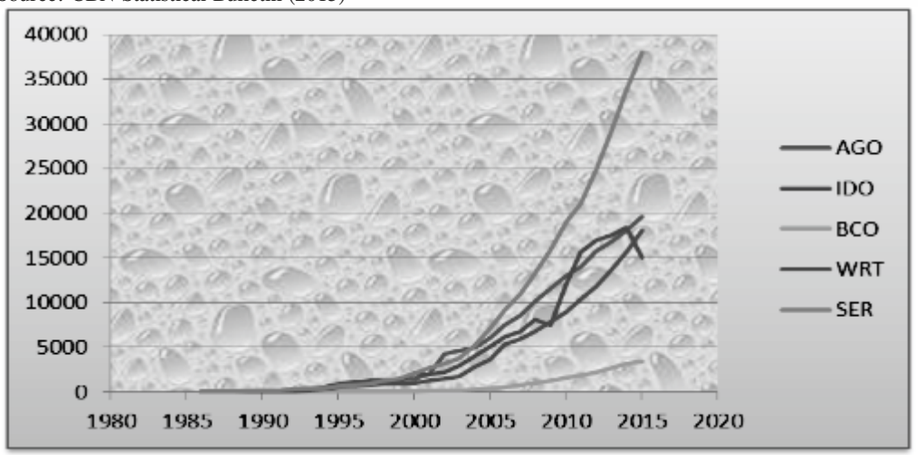

Figure 1: Sectoral contribution to GDP

Source: Author's Computation, 2017

Table 2: Nigeria's imports and capital expenditure

Year	*Imports*	*Government capital expenditure*
1981-1985	9.36	5.49
1986-1990	24.38	12.46
1991-1995	263.24	62.93
1996-2000	818.64	305.82
2001-2005	1,947.8	374.51
2006-2010	5,251.68	861.85
2011-2015	10,363.36	900.65

Source: CBN Statistical Bulletin (2015)

It shows that Nigeria's import expenditure is large, however the amount devoted to infrastructural development which is capable of replacing imports and promoting exports is small. Government capital expenditure, on the average, has not been up to 1 trillion naira, while imports have grown in volume to over 10 trillion. This shows the need for expenditure switching to import substitution. Thus, the diversion of import expenditure into capital projects that can reduce import dependence is paramount. However, the import substitution strategy for industrialisation has not been consistent in Nigeria.

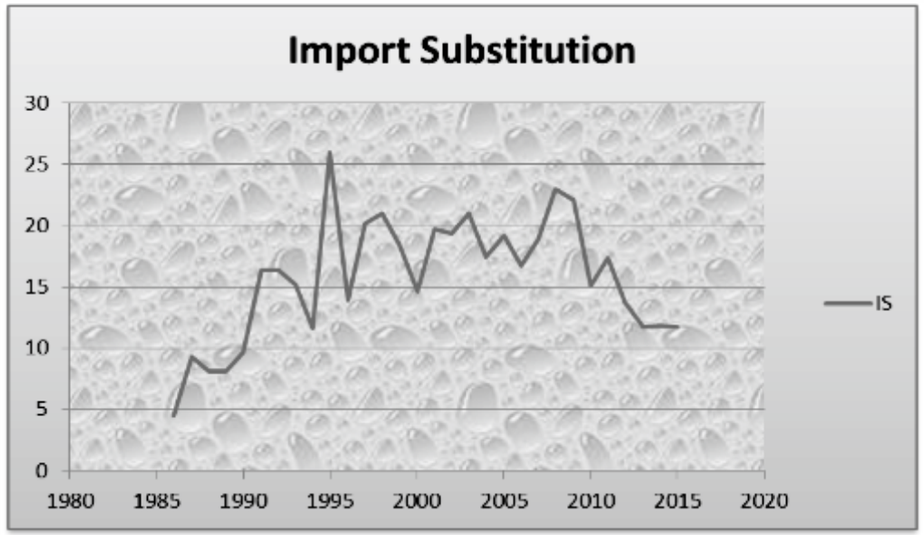

Figure 2: Degree of import substitution

Source: Author's computation, 2017

Import substitution is measured as the ratio of imports to GDP in a country. A decline in the ratio shows that the country is progressing in its quest for import-substitution and is replacing imports with domestic production while an increase in the ratio shows increasing import dependence. Figure 2 shows a seesaw alternating movement in import substitution. The period 1985-1990 shows an increase in the ratio showing increase in manufactured imports. However, from 2010-2015, there have been significant decline in the ratio showing that in recent time, the country is striving in its quest of reducing import dependence. In contrast to import substitution, export promotion has also been moving back and forth with a constant decline between 2010 and 2015. Export promotion, on the other hand, is measured as the ratio of exports to GDP (figure 3).

What is alarming, however, and further undertones the need for import substitution is the share of non-oil export promotion. It is almost insignificant and shows that the country's dependence on oil is endemic and needs to be re-addressed through a deliberate and consistent pursuit of import substitution for rapid industrialisation in Nigeria. In order to avoid nonsensical regression estimates, which may lead to spurious results, the data were subjected to unit root test to examine the stationarity of the data series. The result of the Augmented Dickey-Fuller (ADF) test is presented in table 3.

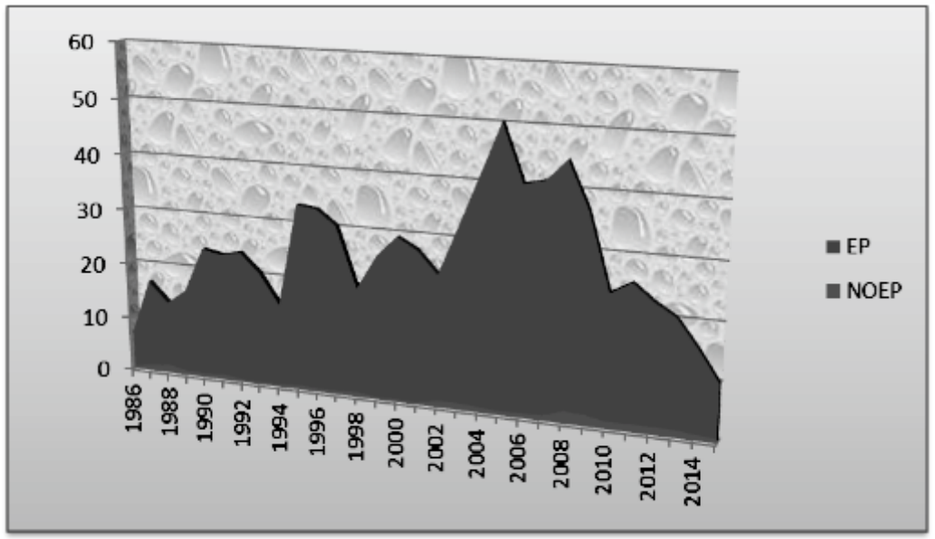

Figure 3: Degree of export promotion and non-oil export promotion

Source: Author's computation, 2017

Table 3: Stationarity test

Variables	*ADF Test Statistic*	*1% Critical Value*	*5% Critical Value*	*10% Critical Value*	*Prob.*	*Order of Integration*
IDO	-3.76	-3.69	-2.97	-2.63	0.0076	1(1)
IS	-9.17	-3.69	-2.97	-2.63	0.0000	1(1)
EP	-5.26	-3.69	-2.97	-2.63	0.0002	1(1)
NEP	-4.65	-3.69	-2.97	-2.63	0.0001	1(1)
IMP	-5.69	-3.69	-2.97	2.63	0.0009	1(1)
NOE	-3.99	-3.69	-2.97	-2.63	0.0049	1(1)
TOP	-7.01	-3.69	-2.97	-2.63	0.0000	1(1)

Source: Eviews9 Output, 2017.

The associated one-sided p-values (for 30 observations) are less than 0.05. The result also shows that the statistic t_a value is greater than the critical values at 1%, 5%, and 10% for all the variables; hence, the null hypothesis is rejected at the conventional test size, and the variables are stationary at first difference series. The finding that the macro time series contains a unit root has spurred the nonstationary time series analysis. Engle and Granger (1987) pointed out that a linear combination of two or more nonstationary time series may be stationary. If such a stationary linear combination exists, the nonstationary time series is said to be cointegrated. The stationary linear combination may be interpreted as a long-run equilibrium relationship between the variables. The Johansen system framework is employed to test for the presence of cointegrating relationships among the nonstationary variables. The result is presented in table 4.

Table 4: Cointegration test

Null hypothesis	*Trace statistic*	*0.05 Critical value*	*Null hypothesis*	*Max-Eigen statistic*	*0.05 Critical value*
r = 0*	225.63	125.62	r = 0*	92.88	46.23
r = 1*	132.75	95.75	r = 1*	56.82	40.08
r = 2*	75.94	69.82	r = 2	31.29	33.88
r = 3	44.65	47.86	r = 3	18.52	27.58
r = 4	26.13	29.80	r = 4	12.32	21.13
r = 5	13.81	15.49	r = 5	9.37	14.26
r = 6	4.44	3.84	r = 6	4.44	3.84

Note: r represents number of co integrating vectors. Trace statistic indicates 3 co integrating equations while Max-Eigen statistic indicates 2 co integrating equations. * denotes rejection of the hypothesis at the 0.05 level

VAR lag order selection criteria

An optimal lag of 2 is selected for the empirical model and the result is presented in table 5.

Table 5: Lag order selection criteria

Lag	*LogL*	*LR*	*FPE*	*AIC*	*SC*	*HQ*
0	-710.09	NA	4.15e+13	51.22	51.55	51.32251
1	-624.54	122.21	3.42e+12	48.61	51.27	49.42461
2	-507.11	109.05*	5.50e+10*	43.72*	48.71*	45.24920*

* indicates lag order selected by the criterion
LR: sequential modified LR test statistic (each test at 5% level)
FPE: Final prediction error
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion

Effect of import substitution on industrialization in Nigeria

The result of the Bayesian VAR (in table 6) shows that all the variables (IS, EP, NEP, IMP, NOE and TOP) have a positive effect on IDO in Nigeria. This reveals that IMP does not conform to a priori expectation. A possible explanation for this is that the raw materials required for industry in Nigeria are still supplemented by imports and, as such, exert a positive influence on industrial output in Nigeria. In addition, the coefficient of IMP reveals that it is statistically significant. This shows that dependence on foreign trade poses no threat to the quest for industrialisation in Nigeria. Import substitution has the potential of spurring industrialisation as indicated by its sign. However, the coefficient of import substitution is still not significant and shows that the quest for replacing imported goods with local content has not been fully realised. Both export promotion and non-oil export promotion are also not statistically significant; however, their signs show that there is a latent possibility to spur industrial output, which is not yet actual. Trade openness is also not significant and implies that the country's volume of trade is still poor, though it is likely to boost industrial output. The coefficient of non-oil export is significant in influencing the rapidity of industrialisation; but there is still room for improvement, given the underutilisation of resources in the sector.

The adjusted R^2 value of 0.98 means that about 98% of the variations in industrial output is explained by IS, EP, NEP, IMP, NOE and TOP. The coefficient of about 0.98 shows that import substitution, export promotion, non-oil export promotion, non-oil export, imports, trade openness and industrial output are strongly positively correlated. The study also finds that IS, EP, NEP, IMP, NOE and TOP are jointly significant. The F-statistic shows the overall significance of the estimated regression line and validates

the result of R^2. The result further reveals that the *p* value of obtaining an *f* value of as much as 84.25 or greater is simultaneously equal to zero, leading to the rejection of the hypothesis that together, IS, EP, NEP, IMP, NOE and TOP have no effect on industrial output in Nigeria.

Conclusion and Recommendations

The study found that the import substitution strategy has not been consistent in Nigeria. However, the strategy is important and has the potential of spurring industrialisation in Nigeria; although, its effect is not significant. This shows that Nigeria is still import-dependent on manufactured products and implies that the quest for replacing imported goods with local content has not been fully realised. The low index of trade openness shows that Nigeria's trade volume is still low and that it is dominated by oil exports and imports. Non-oil export is, however, significant and affects industrial output positively, which reveals that if the import substitution strategy is rigorously adopted, growth of the industrial sector will be imminent – driven by non-oil exports. Even though import substitution is not yet significant, its sign alongside export promotion, non-oil export promotion, non-oil export, imports and trade openness have a latent effect on industrialisation in Nigeria. The study thus concludes that the strategy of import substitution is relevant for rapid industrialisation in the country. On this basis, it is recommended that:

i. The promotion of local content via import-substitution is non-negotiable. The government should, in addition to expenditure switching to import substitution, optimise different forms of linkages within and outside the industrial sector. In this regard, collaborative partnerships and private led initiatives are essential.
ii. The government should adopt industrial ideas from developed nations and also ensure the diffusion of commercial ideas in order to upgrade technologies capable of driving the manufacturing sector in the country.

References

Bems, R. and Giovanni, J. (2016). Income-induced expenditure switching. *American Economic Review*, 106(12): 3898–3931.

Bruton, H.J. (1969). The import substitution strategy of economic development: A survey of findings. Research Memorandum No.27. Centre for Development Economics.

Coker, M.A., Obo, U.B. and Agba, M.S. (2012). Direct foreign investment in Nigeria during the era of import substitution industrialization, 1960–1975. *International Journal of Humanities and Social Science,* 2(11).

Dagogo, D.W. (2014). Nigerian industrial development between 1943 and 2013: Challenges and opportunities. *International Review of Research in Emerging Markets and the Global Economy,* 1(3).

Edeme, R.K. and Karimo, T.M. (2014). Economic liberalization and industrial sector

performance in Nigeria: A marginal impact analysis. *International Journal of Development and Emerging Economics,* 2(4):43-59.

Ekpo, U.N. (2014). Nigeria industrial policies and industrial sector performance: Analytical exploration. *IOSR Journal of Economics and Finance,* 3(4): 1-11.

Engle, R.F. and Granger, C.W.J. (1987). Cointegration and error correction: Representation, estimation and testing. *Econometrica,* 55: 251–276.

Hesse, H. (2008). Export diversification and economic growth. Working Paper No.21. Commission on Growth and Development.

Ibbih, J.M. and Gaiya, B.A. (2013). A cross-sectional analysis of industrialization and growth in Africa. *International Research Journal of Arts and Social Sciences,* 2(6):150-167.

Jayanthakumaran, K. (2000). Industrialisation: Import substitution to export promotion. Faculty of Business Economics Working Papers. University of Wollongong.

Kayode, A. (2015). Industrialization: The key to Nigerian's developmental questions. *American Journal of Social Sciences,* 3(3): 62-68.

Lall, S. (2005). Is African industry competing? Working Paper 121. Queen Elizabeth House, University of Oxford.

Mbaegbu, D. (2016). an industrialization strategy for economic diversification and sustainable development of Nigeria. *International Journal of Advanced Studies in Business Strategies and Management*, 4(2).

Ogujiuba, K., Nwogwugwu U. and Dike E. (2011). Import substitution industrialization as learning process: Sub-Saharan African experience as distortion of the 'good' business model. *Business and Management Review,* 1(6): 08–21.

Orluwene, O.B. (2014). The politics of development strategies in Nigeria since independence: An overview. *Academic Journal of Interdisciplinary Studies,* 3(6): 391-396.

Rodrik, D. (2007). Industrial development: Some stylized facts and policy directions. In: *Industrial Development for the 21st Century*. New York; United Nations.

Soludo, C., Ogbu, O. and Chang, H. (2004). *The Politics of Trade and Industrial Policy in Africa*. Trenton; Africa World Press.

Todaro, M.P. and Smith, S.C. (2011). *Economic Development* (11th ed). England: Pearson Education Limited.

Udu, E. and Agu, G.A. (2005). *New System Economics*. Onitsha: Africana First Publishers Ltd.

UNIDO and UNCTAD (2011). Fostering industrial development in Africa in the new global environment. *Economic Development in Africa*, Special issue.

Yantumaki, I.S. (2009). Issues, processes and problems of development. In: P.A. Areo and R.C. Odo (eds) *Social Studies for Nation Building*. Zaria: ABU Press.