Asian Journal of Economics and Finance. **2022**, 4, 4 : 369-379
ISSN: 2582-340X
https://DOI: 10.47509 /AJEF.2022.v04i04.02

ARF INDIA
Academic Open Access Publishing
www.arfjournals.com

Globalization and Real Sector Performance in Nigeria

Uzoma Chidoka Nnamaka[1] and Odungweru Kingsley Nnana[2]

[1]*Rivers State Universal Basic Education Board, Port Harcourt, Nigeria. E-mail: chidoka1@yahoo.com*
[2]*Department of Economics, Faculty of Social Science, Rivers State University, Port Harcourt, Nigeria*

ARTICLEINFO

Received: 27 May 2022

Revised: 30 July 2022

Accepted: 28 August 2022

Online: 10 November 2022

To cite this paper:

Uzoma Chidoka Nnamaka & Odungweru Kingsley Nnana (2022). Globalization and Read Sector Performance in Nigeria. *Asian Journal of Economics and Finance.* 4(4), 369-379. https://DOI: 10.47509/AJEF.2022.v04i04.02

Abstract: The need to provide a level playing field for national economies has necessitated the integration of the economies through cross flow of goods, services, technologies and capital. These goods and services are produced by key sectors of the economy which represents the real sector. Over the years, the competitiveness of the real sector in the international market has raised concerns on the link between globalization and real sector performance. Consequent upon this, this study examined the impact of globalization on real sector output in Nigeria for a 39 year time period spanning from 1981 to 2019. The time series datasets used in this study were adapted from the Central Bank of Nigeria's Statistical bulletin. The Ordinary Least Squares and Error Correction Modeling were used as the main analytical tools. The Augmented Dickey Fuller unit root test showed that all the variables attained stationary after first difference. The Johansen cointegration test further showed that the series have long run equilibrium relationship at 5 percent level of significance. The result from the error-correction model confirms that about 38 percent of the short run shocks in real sector output is corrected annually. From the estimates, a positive and statistically significant relationship exists between real sector output and foreign direct investment. Trade openness also was significant in impacting real sector output positively while a negative and significant linkage was observed between exchange rate and real sector output in Nigeria. The study therefore concluded that openness to trade broadens real output growth. Based on the findings, the study recommends amongst others that in the quest to maximize the benefits from trade openness, the relevant authorities should ensure that the nation's exports are competitive and meet international standards by leveraging on modern technologies and innovation. Also, favourable industrial policies and strong institutional framework should be set up by the government to attract the right foreign direct investments.

Keywords: Globalization, Trade Openness, Foreign Direct Investment, Real Sector Output.

1. Introduction

Globalization refers to the fusion of world economies due to increasing cross-border trade of goods and services, international capital flow and improved technologies. It is the integration of national economies through trade and financial interaction. Globalization is a reflection of the expansion and mutual integration of market frontiers and also a prerequisite for economic development in the whole world at the turn of the millennium.

The economic aspect of globalization (asides the political, cultural, social and environmental) is at the forefront of policy debates because it bridges the gaps amongst countries across the globe thereby making the sharing of ideas, cultures, value and lifestyle efficient and cost-effective (Obadan, 2006 & Akor *et al*, 2012).

Globalization has intensified the competiveness of the economies in terms of the goods and services traded in the international market among enterprises from different countries through technological advancement. This technological advancement has improved the industrial structures of countries through readjustments and upgrade. This has made most economies pay attention to their real sectors to ensure it meets global standard. The real sector in Nigeria is basically categorized into the oil and non-oil sectors. The oil sector comprises of the crude oil and gas production while the non-oil sector is made up of agriculture, industry, wholesale and retail and services. The sector, being the engine of the country's economic transformation, has over the years metamorphosed into an emerging industrial workhorse. The oil sub-sector has dominated sector in terms of foreign exchange earnings although its contribution to GDP has been on the decline since the turn of the millennium (CBN, 2019). In the non-oil subsector, the agricultural sector have been majorly hindered by The subsistence nature of farming as a result of low adoption to technology and lack of access to adequate funds for investment, all of which have hampered productivity. The other components of the non-oil subsector have been faced with inconsistencies in policy and reversals, alongside infrastructural bottlenecks.

While some scholars perceive globalization to be good, others have expressed its detriments. According to the former, globalization eases the exchange of resources and intellectual skills which boosts industrial production between countries thereby giving the residents of the country opportunity to access varieties of commodities that they wouldn't have had. Those against globalization argue that it can heighten social tension by increasing the rate of unemployment and widen the income gap. Also, they view it is a form of imposition because they perceive it to be a force that leads to the domination and control of underdeveloped countries by wealthier and overdeveloped ones (Castell, 1996). These arguments have made it imperative to investigate the relationship between globalization and the real sector. The objective of this study therefore is to investigate the link between globalization and the real sector in Nigeria. After the introduction of tis paper, the literature review is next followed by the methodology, results and discussion, and finally the conclusion and recommendations.

2. Literature Review

2.1. Theoretical Literature

The theoretical underpinnings of globalization are majorly trade theories. Trade between countries across the globe has remained at the forefront on economic concerns because recent developments in the world economy have revealed the futility in countries isolating themselves in a rapidly integrating world. Adam Smith's absolute advantage theory proposes that the stock of human and natural resources sums up the wealth of a nation as against its possession of precious metals (Debel, 2002). According to Smith, a country that has an absolute advantage turns out more goods or services than other countries employing the same amount of resources. Smith's theory however did not explain the situation in which a country has absolute advantage in the production of all goods than all other countries. This led to the development of the comparative advantage theory by David Ricardo which argues that external trade arises not just from the difference in absolute advantage but from the difference in comparative advantage.

According to the modern theory of factor endowment, the relative availability of factor endowments determines the pattern of production and export in a country (Todaro, 2011). The difference in pre-trade product prices between nations was identified in the model as the immediate basis for trade (Usman, 2011).

When countries embrace economic liberalization policies and improve their technology because of globalization, higher trade growth rates and improved capital market performance through capital inflows and Foreign Direct Investment (FDI) are achieved. This is a pointer that FDI is one of the benefits that countries enjoy by linking their economy to the rest of the world. FDI tends to boost growth which is consistent with traditional neo-classical growth models and the modern growth theories. The traditional growth model as proposed by. According to Solow's growth model (1956), FDI can boost the volume of investment while enhancing the process of technological innovation (Ewubare and Promise-Keje, 2018).

2.2. Conceptual Literature

What is Globalization?

The concept of globalization is a broad one and no consensus has been reached on a particular definition for it. However, different scholars have expressed their ideas concerning globalization. Giddens (1990), viewed globalization as intensified worldwide social relations that links various localities in a manner that local happenings are influenced by global events taking place miles away and vice versa. Omar (1996), viewed globalization as the integration of domestic economies through financial and trade interactions which leads to the collapse of barriers to trade making the domestic economy influenced by the policies of other countries through trade and investments. In his view, Castells, (1998) expressed globalization as the flow of commodities, capital, technology, ideas, forms of culture and people across national boundaries via a global networked society. Narrowing his definition, Lall (2002), saw globalization as the organization and governance of global production systems while Garr (2001) expressed globalization as changing organizational structures where expenses can move up or down as the business climate dictates. From these definitions, it can be deduced that globalization involves the free flow of factors for the closer integration of economies.

Two areas of globalization that stands out are trade and financial integration. Trade integration requires that the barriers to international trade by countries are removed so that the world is viewed as a single market in terms of acquiring, utilizing and development of productive resource which means a single competitive market for all business transaction (Ewubare and Promise-Keje, 2018). Financial integration on the other hand involves the movement of capital between and across national boundaries.

The Nigerian Real Sector

The real sector of the Nigerian economy comprises of all activities of individuals, private and corporate bodies, involved in the production of tradable tangible goods. The sector is significant in the sense that it is an avenue through which governments achieve their macroeconomic objectives and create a vibrant economy as it is the productive sector of an economy, where goods and services are produced for consumption by various economic units. Adenusi and Aluko, (2015) rightly noted that the general output level of the real sector is an indicator of the productivity level of the economy. Furthermore, the level of productivity of an economy in its real sector depends on the unit of the inputs utilized by the economic agents. The real sector is broadly classified into agriculture, industry, building and construction, wholesale and retail, and services (CBN, 2019). Anyanwu, (2010) noted that the real sector is important in an economy for the following reasons: first is that it serves as an indirect measure of the living standard of the people because it produces the commodities needed to meet aggregate demand in the economy. Secondly, the effectiveness of macroeconomic policies is a reflection of the performance of the real sector because the former affects production and distribution of goods and services in the economy. Thirdly, the sector has the capacity of reducing the pressure on the external sector by creating linkages in the economy. Finally, the sector has high employment and income generating potentials.

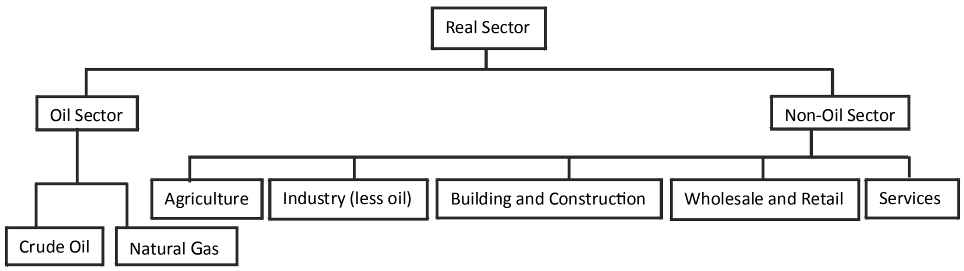

Figure 1: The Structure of the Real Sector in Nigeria

Source: National Bureau of Statistics

2.3. *Empirical literature*

On the empirical front, several studies have been carried out on globalization in different perpective. While some focused on the relationship between globalization and economic growth, others narrowed their study to the relationship between the former and industrial production and some others still extended theirs to non-oil export. Some of the empirical studies include:

Tamuno and Edoumiekumo (2012) carried out a study on the influence of globalization on industrial production in Nigeria from 1970 to 2008 using the ordinary least square technique, co-integration test and error correction mechanism while incorporating the product life cycle theory. The result showed that in the short run, gross capital formation, nominal exchange rate, external debt and degree of openness impacted negatively on the industrial production in Nigeria while FDI impacted positively on the same.

Sede and Izilein (2013) examined the causal relationship between globalization, economic growth and development in Nigeria. The Granger causality test result showed clear evidence that openness does not granger cause GDP growth rate in Nigeria for the period covered by the study. It was also discovered from study that crude oil export dominated the Nigerian export table.

Alimi (2017) investigated the relationship between globalization and non-oil export in Nigeria from 1970 to 2014 using the Autoregressive Distributed Lag (ARDL) approach. The result showed evidence of a positive impact of globalization, official development assistance, investment and exchange rate on non-oil sector export and a negative impact of gross domestic product and foreign direct investment on the same in Nigeria. The therefore recommended that government should adopt and implement trade policies that are capable of sustaining non-oil sector growth in Nigeria.

Binuyo, Oluwadare and Adeoye (2017) investigated the impact of globalization on industrial growth in Nigeria from 1981 to 2014 using the ordinary least squares technique focusing on how it psychologically affected the citizens. From their findings, it was deduced that trade openness, foreign direct investment and exchange rate impacted positively on industrial growth for the period covered by the study.

In their study, Eke, Worika and Umofia (2017) analyzed the Nigerian industrial sector in a globalized world from the period, 1981 to 2015 using the Ordinary Least Square regression technique. Using trade openness as a proxy for globalization, the result confirmed that a positive but insignificant relationship exists between industry value added and trade openness.

Amiteye & Akhigbodemhe, (2018) sought to ascertain the bi-directional relationship between globalisation and industrial production in Nigeria from 1981 to 2015 using Cointegration and Error Correction Modelling (ECM) approach. Their result revealed a positive interaction between industrial production and foreign direct investment as well as openness to trade, while a negative linkage was found in the case of exchange rate and industrial production in Nigeria. Based on their findings, they recommended that appropriate strategies be put in place by the government to promote investment-friendly environment to attract the right kind and quality of FDI into the nation's industrial sector.

In their study, Ewubare and Promise-Keje, (2018) explored the link between globalization and economic development in Nigeria between 1981 and 2015 using the Ordinary Least Squares and error correction model. It can be deduced from their findings that actual flows and restrictions contracted economic growth in the short run, but boosted the same in the long run. They traced the negative net effects of globalization in the short run to weak institutions and structural rigidities in the country. Actual flows and restrictions as well as information flows also impacted positively on economic growth in Nigeria in the long run. In line with their findings, the study recommended that efforts should be directed towards building and sustaining strong institutions as well as provides macroeconomic foundations necessary for boosting the potentials of optimizing the net positive benefits of globalization in Nigeria.

Empirical studies from various authors have shown varying results. The point of departure from other studies is narrowing the effect of globalization to the real sector of the Nigerian economy which represents the hub of the economy, where goods and services are produced for other economic units..

3. Methodology

Because this study is quantitative in nature, the quasi-experimental research design was employed. The time series data on trade openness, foreign direct investment and exchange rate was sourced from CBN statistical bulletin from 1981 to 2020. This study combined the Ordinary Least Squares (OLS) and Error Correction Modeling technique.

The model by Binuyo, Oluwadare and Adeoye (2017) was adopted as they disaggregated globalization into trade openness, foreign direct investment, exchange rate and interest rate, which served as the independent variables while the dependent variable was industrial output. In line with the objectives of this study however, the model was modified and the linear relationship between globalization and the real sector in Nigeria was expressed thus:

$$RSQ = f\ (TOP, FDI, EXR) \tag{1}$$

Equation (1) is further stated functionally as:

$$InRSQ_t = \alpha_0 + \alpha_1 TOPt + \alpha_2 FDI + \alpha_3 EXR + \mu_t \tag{2}$$

Where: RSQ = Real Sector Output, TOP = Trade openness, FDI = Foreign Direct Investment, EXR = Exchange Rate, $\alpha_0 - \alpha_3$ are coefficients, t is time while μ is the error term.

The theoretical expectation provides the parameter values and signs. In this study, the coefficients of all the parameters are expected to be positive.

4. Results and Discussion

Unit Root Test

This involves testing for the stationarity status of all the variables in the model to ascertain their order of integration. In this study, the Augmented Dickey Fuller (ADF) test was used to find the existence (or otherwise) of unit root in each of the time series. See table 1.

Table 1: Unit Root Test for Stationarity (Augmented Dickey Fuller)

Variables	*ADF Test Statistic*	*5 % Critical Value*	*Order of Integration*
RSQ	-5.2313	-2.8372	I(1)
TOP	-6.5142	-2.8372	I(1)
FDI	-5.8241	-2.8372	I(1)
EXR	-6.8272	-2.8372	I(1)

Source: Researchers Computation Using E-Views 10

The unit root test as reported in table 1 shows that the variables scaled through the unit root test by attaining stationarity after first difference at 5 percent significance level. We therefore proceed to check for cointegration vectors in the series.

Co-Integration Test

Cointegration test is usually done to check for the presence (or otherwise) of long term relationship between the variables in a regression model. This study adopted the technique according to Johansen and Juselius (1990). The result of the co-integration test is presented in the table 2 below.

Table 2: Johansen Co-integration Test Results

Trace Statistic	*5% Critical Value*	*Max-eigen Statistics*	*5% Critical Value*
57.1149	48.7821	27.1431	22.1942
31.2504	29.4532	16.2129	16.4354
13.7482	14.1628	12.4321	13.5241
0.6133	3.5214	0.6133	3.5214

Source: Researchers Computation Using E-Views 10

The result of the co-integration test in Table 2 reports the presence of two cointegrating equations for the Trace Statistic and one co- integrating equation for the Maximum Eigenvalue both at 5 percent level of significance. The result therefore confirms that there exists a long run equilibrium relationship between the variables in the estimated model. It is therefore pertinent to fit in an error correction model.

Parsimonious Error Correction Mechanism

To provide the dynamic coefficients of the regressors as well as the speed of adjustment of real sector output to its long-run convergence, the Error correction modelling technique was employed. This is based on the general-to-specific rule and the results are presented on Table 3 below.

Table 3: Parsimonious ECM Result

Dependent Variable: D(RSQ)				
Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*Prob.*
C	1.460868	0.870376	1.678432	0.1140
D(TOP)	0.363184	0.196081	1.852212	0.0775
D(FDI)	0.099993	0.034243	2.920105	0.0106
D(EXR)	-0.473389	0.254289	-1.861620	0.0824
ECM(-1)	-0.382319	0.189849	-2.013810	0.0549
R^2= 0.71, R^2 –adjusted = 0.67,		F-stat = 18.29,	F-prob =0.00,	DW=1.8

Source: Researchers Computation Using E-Views 10

From the result in table 3, the coefficient of trade openness is positively signed (in line with economic theory) and statistically significant at 10 percent level, in line with the works of Eke, Worika and Umofia (2017) and Ewubare and Promise-Keje (2018) who in their studies, reported similar outcomes on the impact of trade openness and industrial output on economic growth. This implies that the more an economy is integrated to that of the rest of the world, the more expanded the real sector will be.

Foreign direct investment had a positive and statistically significant impact on real sector output in Nigeria as expected *a priori*. This finding is in congruence with the submission of Tamuno and Edoumiekumo, (2012), Binuyo, Oluwadare and Adeoye (2017) and Amiteye and Akhigbodemhe, (2018). This outcome confirms that the inflow of foreign direct investment in the key sectors of the economy improves their performance.

Furthermore, the coefficient of exchange rate was negative although statistically significant at 10 percent level. The implication of this is that an increase in the exchange rate of the naira to the US dollar (representing a depreciation of the currency) depressed real sector output in Nigeria for the period covered by the study.

Meanwhile, the R-squared value implies that 71 percent of the variations in real sector output is accounted for by trade openness, foreign direct investment and exchange rate. Also, the F-statistic value of 18.29 gives valid evidence to support the joint importance of the independent variables in influencing real sector output. It can be deduced from this outcome that for an impressive performance of the real sector to be achieved, adequate attention should be paid to trade openness, FDI and exchange rate. The Durbin Watson (DW) value of 1.8 confirms that the model is free from autocorrelation.

Conclusion and Recomendations

This study examined the impact of globalization on real sector output in Nigeria for a 39 year time period spanning from 1981 to 2019. Previous studies on globalization and other macroeconomic indicators showed both mixed and inconclusive results. The study used the cointegration and error correction modeling technique to evaluate the relationship between globalization (measured by trade openness, foreign direct investment and exchange rate) and real sector output in Nigeria. The study found that a long-run relationship exists between the variables in Nigeria. The result from the error-correction model confirms that about 38 percent of the short run shocks in real sector output is corrected annually. The estimates show a positive and statistically significant relationship between real sector output and foreign direct investment. Trade openness also was significant in impacting real sector output positively while a negative and significant linkage was observed between exchange rate and real sector output in Nigeria. The study therefore concluded that openness to trade broadens real output growth. Based on the findings of the study, the following recommendations were given. First is that in the quest to maximize the benefits from trade openness, the relevant authorities should ensure that the nation's exports are competitive and meet international standards by leveraging on modern technologies and innovation. Secondly, favourable industrial policies and strong institutional framework should be set up by the government to attract the right foreign direct investments. Finally, government should ensure that basic and adequate infrastructure is provided to the key sectors of the economy to optimize their productivity.

References

Adeusi, S. & Aluko, O. (2015). Relevance of Financial Sector Development on Real Sector Productivity: 21st Century Evidence from Nigerian Industrial Sector. *International Journal of Academic Research in Business and Social Sciences*, 5(6), 118-132.

Akor, A. A, Yongu, V. M. & Akorga M. T. (2012). Effects of globalization on the Nigeria economy. Journal of Management and Corporate Governance, 4, 1-6.

Alimi, O. and Atanda, A. (2011). Globalization, Business Cycle and Economic Growth in Nigeria. African Journal of Scientific Research, 7(1), 344-357.

Amiteye, L. A. & Akhigbodemhe, E. J. (2018). Analysis of Globalization and Industrial Production in Nigeria–An Error Correction Modeling Approach. *Amity Journal of Economics*, 3 (2), 1-13.

Binuyo, B. O., Oluwadare, A. & Adeoye, A. O. (2017). Impact of globalisation on the industrial growth in NIGERIA (1981 – 2014): Implication to Psychologist and Economist. *European Journal of Business, Economics and Accountancy,* 5(5), 52-60.

Castells, M. (1996). The Information Age: *Economy, Society, and Culture.* Vol. 1, The Rise of the Network Society, Oxford, England: Blackwell.

Castells, M. (1998). The Information Age: *Economy, Society, and Culture*. Vol. 3, End of Millenium. Oxford, England: Blackwell.

CBN (2019): Central Bank of Nigeria Statistical Bulletin and Annual Report and Statement of Account.

Eke, O. K., Worika, I. L. & Umofia, N. (2017). An analysis of the industrial sector of Nigeria in this era of globalisation. *The International Journal of Humanities & Social Studies*, 5(8), 230-234.

Ewubare, D. B. & Promise-Keje, B. (2018). Effect of globalisation on economic development in Nigeria. *Journal of Research in Agriculture and Animal Science*, 5(2), 23-31.

Garr, D. (2001). Inside Outsourcing. *Fortune Technology Review*, Summer 2001: 85-52.

Giddens, A. (1990). *The Consequences of Modernity*, Cambridge and Oxford: Polity and Blackwell.

Lall, S. (2002) The Employment Impact of Globalization in Developing Countries, Queen Elizabeth House, Working Paper No. 93.

Obadan, M. I. (2006). Globalization of finance and the challenge of national financial sector development. Journal of Asian Economics, 17, 316-332.

Sede, I. P. & Izilein, E. I. (2013). Economic Growth and Globalization in Nigeria: A Causality Analysis. *Asian-African Journal of Economics and Econometrics*, 13(2), 145-159.

Tamuno, S. O. & Edoumiekumo, S. G. (2012). Industrialization and trade globalization: What hope for Nigeria*?* : *International Journal of Academic Research in Business and Social Sciences*, 2(6), 157-170.

Todaro M. P. (2010), "Economics Development , Pearson Education Inc. Delhi, India.

Usman, O. (2011). Non-oil Export Determinant and Economic Growth in Nigeria (1988-2008). *European Journal of Business and Management*, 3(3).