

Innovations

The Impact of Globalization on Economic Growth: Evidence from Nigeria

Dr. Sola, Oluwagbenle; Dr. B.O. Muse; Dr. O.S. Afolabi

Department of Economics, BamideleOlumilua University of Education, Science and Technology, Ikere-Ekiti, Ekiti State, Nigeria

ORCID id: 0000-0003-1880-3541

Corresponding Author: **Dr. Sola, Oluwagbenle**

Abstract: *This study examines the impact of globalization on economic growth in Nigeria from 1980 to 2021. Variables used to capture globalization are the foreign direct investment, trade openness and financial openness that have direct bearing on the study were incorporated into the model, given their nexus with the Gross Domestic Product (GDP) which captures economic growth. Considering the nature of the objectives of this study, co-integration analysis was employed to verify the existence of long run relationship between globalization and economic growth. The empirical result of the study revealed that there is a positive and significant relationship between globalization and economic growth in Nigeria. From the empirical results of the study, globalization has a long run relationship with economic growth in Nigeria. The policy implication of the findings of the study is that government should improve on its Foreign Direct Investment policies that would promote economic growth in Nigeria. In addition, policies that encourage trade openness and financial openness should be formulated to enhance the competitiveness of her basic industries in order to support local manufacturing that might invariably lead to sustainable economic growth in Nigeria.*

Keywords: *Globalization, Economic Growth, Foreign Direct Investment, Trade Openness, Financial openness.*

Jel Classification: E00, E6, F36, F41.

1. Introduction

Economic globalization involves flow of goods and services across borders. It includes reduction in tariffs and trade barriers, immigration and the spread of technology and knowledge beyond borders. Globalization also can be described as a process of international integration arising from the exchange of world ideas,

products, views and innovations (Omojolaibi, Mesagan and Nsofor 2016). Globalization connotes the tendency of moving towards the integration of a nation into the world economy. (Moreover, globalization entails the links among enterprises, institution as well as citizens across national borders. (Okpokpo, Helenian and Osuyali 2014).

As developing countries, attempt to open up their economies in recent years, they are concerned about globalization and its different effects on economic growth especially as poverty, inequality, environment and cultural dominance are increasing every day (Samimi and Jenatabadi, 2014). As an important component of the developing world, Nigeria is faced with opportunities and costs of globalization. Although Nigeria is endowed with natural resources, these resources are not being utilized appropriately. It is pertinent to highlight that exploring new ways to harness the Nigeria's resource endowments more efficiently is important and necessary for the country to improve its economic situation and position in the global sphere (Utuk, 2015).

On the global scope, globalization has had enormous positive influences and effects on the world in general. This is evidenced in the assertion of Erixon (2018) that the period of globalization between 1980 and 2010 is unique because global trade grew very fast. Obviously, international trade grew in the years preceding 1980, and there has also been some growth in the years succeeding 2010, but none of these periods can equate the growth of trading activities during the era of globalization. The same is true for Foreign Direct Investments (FDI): as the multiplier impact can be witnessed from 1980 to 2010.

The impact of globalization has not been felt in the Nigerian economy. This is because, currently, Nigeria exports crude oil and imports refined products due to the inability of local refineries to meet the domestic demand despite the huge money spent on the Turn Around Maintenance (TAM) of the local refineries. The exports from Nigeria thus have very high import content. This has made the Nigerian economy to be industrially underdeveloped. Furthermore, some of the previous studies used Granger causality, error correction model and descriptive statistics for data analysis with little or no regard to the use of some key variables that are believed to capture globalization in their models. On this ground, this study examined the impact of globalization on economic growth in Nigeria using Co-integration and Error Correction Mechanism for data analysis employing foreign direct investment, trade openness and financial openness to capture globalization while using data spanning from 1980 to 2021 in order to capture recent trends and reality in Nigerian economy as against some studies carried out in the past in this regard. The remainder of paper is organized as follows: Section 2 outlines the literature review. Section 3 specifies model, identifies and describes variables, sources of data and the methodological framework adopted in the study. Section 4

presents the results. The last section is reserved for the conclusion and policy implications.

2. Literature Review

2.1 Theoretical Review

i. Neoclassical Growth Theory (NGT)

The paper draws from the neoclassical growth theory developed by Robert Solow. The theory postulates that output is a function of labour and capital. The production function is expressed as: $Y=A(K, L)$ where Y represents output, K is stock of capital and L is labour. A is technology which is exogenously determined. This model is relevant in analyzing globalization and economic growth because the movement of capital and labour forms the basis for globalization and international trade. The relevance of globalization is determined by changes in total factor productivity in terms of labour, capital and technological progress in economic growth between the developed and developing nations through technology which is exogenously determined (Ogunyomi, Jenrola and Daisi, 2013). This divergence in the benefit from globalization also has been linked to the neglect of the manufacturing sector in developing countries including Nigeria which has become retrogressive due to obsolete technology.

ii. Ricardo Theory of Comparative Advantage

The concept of globalization has a unique theoretical framework. Looking at the current occurrences in the global economies, it has been shown that it will be difficult for countries to isolate themselves in a newly converging world. Thus, Ricardo's theory of comparative advantage which posits that countries could better specialize in goods and service that they have comparative advantage in producing can be of relevance in discussing the link between globalization and economic development. This forms the foundation of trade theories which argues that the world economy is becoming interdependent, and ensuring international interconnectivities, most notably in trade. Also, the trade theorists posit that trade was paramount for the development of nations. This argument is not in line with autarky, where an economy is not opened, but closed and accompanied by little relations with other countries of the world. They believed that an economy can be opened.

2.2 Empirical Review

Nwakanma and Ibe (2014) examined the causal relationship between globalization and economic growth in Nigeria from 1981 to 2012. Time series data was used and sourced from the CBN Statistical Bulletin and Annual reports. The stationarity of the variables were tested using the Augmented Dickey-Fuller (ADF) and Phillips Perron (PP) unit root tests. They were found to be integrated of order I

(1). Hence, the null hypotheses of having a unit root were rejected and all the series were used in cointegration test after first difference. The regression results show a positive and insignificant relationship between financial integration, human resource development and trade openness while gross fixed capital formation was negative and insignificant. Granger causality shows a unidirectional causal relationship between financial integration and gross fixed capital formation. There is also a unidirectional causality between trade openness and gross fixed capital formation.

Adesoye et al. (2015) investigated the impact of economic globalization on output growth of the Nigerian economy (1970 – 2013). This study used Engle-Granger cointegration and error correction model and found that at a higher exchange rate, an increase in foreign direct investment enhances the growth rate of output in Nigeria. According to Omolade et al (2013) globalization in concrete terms is the intensification of cross-border trade and increased financial and foreign direct investment flows among nations, promoted by rapid advances in and liberalization of communication and information technology. Hence, globalization paints the picture of a world without borders, with greater economic integration that increases the standard of living of people across the world.

Ebong et al. (2014), also examined “Globalization and the industrial development of Nigeria”. This study spanned the period 1960 and 2010 while using the Johansen cointegration technique. The findings indicate that globalization had a significant impact on industrial development in Nigeria. Trade openness showed a direct effect on industrial development. Feridun, Olusi and Folorunso (2006) examined the effect of globalization of economic growth in Nigeria. The period of analysis was between 1986 and 2003 while the analytical method employed was econometric techniques of Error Correction Modelling (ECM). The result indicated that both measures of economic integration (trade openness and financial integration) and all other orthodox determinants of economic growth such as private investment, public investment and debt series were non-stationary.

Maduka and Madichie(2017) examined the impact of globalization on economic growth in Nigeria. Specifically, their study used the econometric technique of cointegration and error correction mechanism within the framework of ARDL model to examine the effect of trade openness; foreign direct investment and financial integration (which are all components of globalization) on economic growth in Nigeria. Their study used annual time series secondary data from 1970 to 2015, and it revealed that trade openness; foreign direct investment and financial integration had positive effect on economic growth in Nigeria. Kilic (2015) attempted to study how Nigeria could benefit from globalization using descriptive analysis. He observed that Nigeria’s current socioeconomic structure does not reflect the international standard for operating in the league of globalized economies, especially in the areas of large-scale reductions in trade barriers,

competitiveness of price sector activities and provision of favorable macroeconomic environment and infrastructure.

Zainawa (2006) examined the impact of globalization on Nigerian industries, focusing attention on the footwear industry in Kano State for the period covering 1980 to 2004. Descriptive methods were mainly used in analyzing the data. Finding from this study shows that globalization has a serious negative impact on footwear industry in Kano State. Adeleke et al. (2013) in their study examined globalization and economic development in Nigeria. Using the cointegration technique and granger causality tests, their findings revealed that FDI influences the level of economic growth in Nigeria. The findings equally revealed a one-directional causality from FDI to growth. Tamuno and Edoumiekumo (2012) examined the impact of globalization on the Nigerian industrial sector, utilizing annual time series data covering the period 1970-2008. This study adopted econometric analysis by employing Cointegration Approach and Error Correction Mechanism. Cointegration result showed existence of long run relationship among the variables in the model. The result of the error correction model for short run dynamics showed that external debt, gross capital formation, nominal exchange rate and degree of openness.

A study by Shuaib et al. (2015) focused on the impact of globalization on economic growth in Nigeria. The study covered the period of 1960 to 2010. The ordinary least squares (OLS) were used. This study revealed that globalization had a significant impact on economic growth in Nigeria. Oni (2015) examined globalization not only as a strategy of economic development but also on how Nigeria can minimize the adverse effect of globalization and benefit maximally in terms of improved wellbeing of the people. The study relies on secondary source of information. It contends that for Nigeria to fully participate in the complex global political economy, it must necessarily confront the constraints on global integration. Omolade et al. (2013) investigated the link between globalization and economic development in Nigeria. The study adopted Johansen cointegration and Granger causality tests and found that trade openness is inversely related to economic development in Nigeria. This study equally indicated a one-directional causality movement from economic development to globalization, but not vice-versa. This implied that Nigeria's trade partners were gaining more than the country, especially the developed trade partners.

Utuk (2015) examined the impact of globalization on economic growth in Nigeria in terms of trade and capital flows from 1970 – 2011. Using descriptive analysis, the study revealed that increased trade and capital flows caused by globalization can enhance the country's growth performance. Sede and Iz (2013), investigated the relationship between economic growth and globalization in Nigeria. This study used the granger causality method of analysis. The findings indicated that globalization does not granger cause economic growth.

Todaro and Smith (2011) view globalization “as a way by which the economies of the world become more integrated, leading to a global economy and increasingly, global economic policy making”.

From the review of empirical literature, it could be observed that most of the studies focused on the relationship between globalization and economic development at the expense of the link between economic growth and globalization in a less developed country like Nigeria. Examining the relationship between globalization and economic development in less developed country like Nigeria is a mirage as done by some previous studies as Nigeria needs sustainable economic growth and institutional changes before economic development. This situation is like putting “a cart before the horse” Some of the studies used Granger causality, error correction model and descriptive statistics for data analysis with little or no regard to the use of some key variables that are believed to capture globalization in their models. On this ground, this study examined the impact of globalization on economic growth in Nigeria using Co-integration and Error Correction Mechanism for data analysis employing foreign direct investment, trade openness and financial openness to capture globalization while using data spanning from 1980 to 2021 in order to capture recent trends and reality in Nigerian economy as against some studies carried out in the past in this regard.

3. Methodology

3.1 Model Specification

From previous empirical studies, several approaches have been used to demonstrate the impact of globalization on a country’s economic growth. In this regard, Rodriguez and Dani (1999) were of the opinion that foreign direct investment and trade openness are the most significant variables to capture economic globalization. Furthermore, Ovat (2005) as well as Maduka and Madichie (2017) were of the opinion that financial openness (or financial integration) could also be included as a component of globalization. On this note, our model for this study is thus specified as follows:

$$GDP = f(FDI, FOP, TOP) \dots\dots\dots 1$$

That is:

$$GDP_t = \alpha_0 + \alpha_1 FDI_t + \alpha_2 FOP_t + \alpha_3 TOP_t + \varepsilon_t \dots\dots\dots 2$$

3.2 Identification of Variables

- GDP_t = Gross Domestic Product (proxy for economic growth)
- FDI_t = Foreign Direct Investment
- FOP_t = Financial Openness
- TOP_t = Trade Openness
- ε_t = Error term or disturbance term

3.3 A Priori Expectation

Theoretically, it is expected that foreign direct investment (FDI), financial Openness (FOP) and trade openness (TOP) will have positive relationship with economic growth in Nigeria. It is expected that $\alpha_1 > 0$, $\alpha_2 > 0$ and $\alpha_3 > 0$. The expected positive signs rest on the theoretical postulation that the above variables have a direct and positive effect on economic growth in Nigeria in the long run.

3.4 Estimation Techniques

Considering the nature of the objectives of this study, Co-integration analysis will be used to verify the existence of long run relationship between globalization and economic growth. However, the Co-integration test started with the test for stationarity, which is the unit root test.

3.5 Sources of Data

This study made use of time series data. The data used were obtained from Central Bank of Nigeria Annual Report and Statement of Account and the Central Bank of Nigeria statistical bulletin spanning from 1980 – 2021. Some of the data were also generated from the World Bank Economic indicators.

4. Results and Discussion

a. Unit Root Test

Table 1: Unit Root Test Result

Variables	Test Statistics	Order of Integration
D(GDP)	-5.715262	I (1)
D(FDI)	-11.35442	I (1)
D(FOP)	-9.668202	I (1)
D(TOP)	-12.50842	I (1)

Source: Authors' Computation

The result in Table 1 above shows that all the variables are integrated of order one, that is, I (1). That is, they are all made stationary after the first difference. Since this condition has been fulfilled for all the variables, Johansen Co-integration Test can now be conducted for all the variables.

b. Co-integration Test

Table 2: Co-integration Test Result

Hypothesized No of CES	Eigen Value	Trace Statistics	0.05 Critical Value	Probability **
None*	0.810176	98.61754	47.85613	0.0000
At Most 1*	0.526173	38.79776	29.79707	0.0035
At Most 2	0.267613	11.90887	15.49471	0.1614
At Most 3	0.019169	0.696781	3.841466	0.4039

Source: Authors' Computation

Trace test indicates 1 co-integrating equation at the 0.05 level

* Denotes rejection of the hypothesis at the 0.05 level

** Mackinnon-Haug-Michelis (1999) P-values.

From Co-integration results in table 2, there are two co-integrating equations. The trace statistic always determines whether co-integrated variable exist or not. For Co-integrating equation to exist, the trace statistic must be greater than the value of the corresponding Mackinnon Critical value at 5% level of significance. With this assertion, from the trace test statistic in table 2, the absolute values of the variables are the following: (98.62>47.86), (38.80 > 29.80), (11.91 < 15.49), (0.70<3.84). This shows that the null hypothesis of no-co-integration among the variables is rejected since at least one of the variables in the equation at 5% is statistically significant. From this, the co-integrating test result shows that there is existence of a long-run equilibrium relationship among the variables.

Since the level of t-statistic at 0.05 significance of the variables are greater than the p-value during the period, the null hypothesis is hereby rejected and it is hereby concluded that all the variables has significant effect on the economic growth in Nigeria during the period under review. That is, all the variables used in this study have positive effect on the Gross Domestic Product (GDP) which is proxy for the economic growth in Nigeria in the study.

c. Speed of Adjustment

Table 3: Speed of Adjustment Result

Variables	Coefficient	Std. Error	t-Statistic	Probability
LNGDP ECM	-0.530146	0.26764	2.567467	0.0003
R ²		0.861538		

Source: Authors' Computation

The ECM co-efficient from table 3 above is -0.530 which implies that it will adjust back to equilibrium at 53.01% after disequilibrium within one year.

The R² test is used to explain the total variation of the dependent variable that can be explained by the independent variable. The result from Table 3 shows that the three explanatory variables in the equation explain 86% of the systematic variations in the dependent variable, that is, it is explained by changes in the independent variables.

d. Vector Error Correction Mechanism

Table 4: Vector Error Correction Mechanism Result

Variables	Coefficient	Std. Error	t-Statistic	Probability
GDP	0.530146	0.26764	2.567467	0.0003
FDI	0.247873	0.246534	2.876462	0.0056
FOP	0.334765	0.163473	1.476466	0.0324
TOP	0.176476	0.247262	2.764647	0.0025

Source: Authors' Computation

Table 4 shows that the t-statistics for the variables i.e. FDI, FOP, & TOP are all greater than their respective probability values. Therefore, the null hypothesis should be rejected at 0.05 level of significance since level of significance is greater than the p-values. It is therefore hereby concluded that all the variables have significant effect on the economic growth in Nigeria during the period under study.

Conclusion and Policy Implications

This study examined the impact of globalization on economic growth in Nigeria from 1980-2021. Variables like the foreign direct investment, financial openness and trade openness that have direct bearing on the study were incorporated into the model, given their inter-relations with the dependent variable; the Gross Domestic Product (GDP) which serves as a proxy for economic growth. The empirical result of the study revealed that there is positive and significant long-run relationship between globalization and the economic growth in Nigeria. From the empirical results of the study, globalization is positively related with economic growth in Nigeria. Based on the findings, the policy implication of the study is that government should improve on its FDI policies that would promote growth in Nigeria. Furthermore, policies that encourage trade openness and financial openness should be formulated to enhance the competitiveness of the Nigerian basic industries in order to support her local manufacturing that might invariably lead to sustainable economic growth in Nigeria.

References

1. Adeleke, O., Akinola, M. & Chris, I. (2013). *Globalization and economic development in Nigeria. Journal of Research in Humanities and Social Sciences, 1(4):*
2. Adesoye, A. A., Ajike, E. O. & Maku, O. E. (2015). *Economic globalization and economic growth in the developing economies: a case of Nigerian economy. International Journal of Economics, Commerce and Management, 3(7): 340-55.*

3. *Ahamad, H. (2018). Impact of international trade on economic growth in Bangladesh. International Journal of Science and Research, 5(3) 1624 - 1627.*
4. *Dreher, A. (2006). Does globalization affect growth? Evidence from a new index of globalization. Journal of Applied Economics, 38(10), 1091-1110.*
5. *Ebong, F., Udoh, E. and Obafemi, F. (2014). Globalization and the industrial development of Nigeria: Evidence from time series analysis. International Review of Social Sciences and Humanities, 6(2), 77-89*
6. *Erixon F. (2018). Globalization and Economics Growth: Evidence from Nigeria. International Journal of Social Science and Economic Research, 2(8), 111-123*
7. *Feddeke F. U., Liu O. H. (2017). Impact of globalization on Nigerian economy, Pyrex Journal of Business and Finance Management Research, 2(10), 109-121.*
8. *Feridun, M. Olusi, J. O. & Folorunso, B. A. (2006). Analyzing the impact of globalization on economic development in developing economies: an application of Error Correction Modelling (ECM) to Nigeria. Applied Econometrics and International Development, 1(6), 174-182.*
9. *Idoko C.U., Silas I.A. (2020), Globalization and Economic Development in Nigeria, Sumerianz Journal of Economics and Finance, 7(7), 2617-7641.*
10. *Kilic, C. (2015). Effects of Globalization on Economic Growth: Panel Data Analysis for Developing Countries. Economic Insights – Trends and Challenges. 4(12): 1 – 11.*
11. *Maduka, A. C. and Madichie, C. (2017). Globalisation and economics growth: Evidence from Nigeria. International Journal of Social Science and Economic Research, 2(8).*
12. *Nwakanma, P. C. & Ibe, R. C. (2014). Globalization and Economic Growth. An Econometric Dimension Drawing Evidence from Nigeria. International Review of Management and Business Research. 3(2), 771-778*
13. *Obi, C. K. (2015), Economic growth and globalization in Nigeria: A causality analysis. Asian-African Journal of Economics and Econometrics, 13(2), 145-159.*
14. *Ogunyomi, O.O., Jenrola, O.A. & Daisi, O.R. (2013). Globalization and economic security in Nigeria: A reflection of the Nigerian manufacturing sector's performance (1981-2010). Journal of Economics and International Finance, 5(7), 56-68*
15. *Okpokpo, G.O., Helenian. A. & Osuyali, F. (2014). "Is globalization a potent driver of economic growth? Investigating the Nigerian non-oil export" Asian Economic and Financial Review, 4(6).*
16. *Oni, K. J. (2015). Globalization and national development: the Nigerian experience Review of Public Administration and Management. 3(7), 82-91*

17. Ospina, E. O. (2017). *Is globalization an engine of economic development? Journal of International Trade, Extreme Poverty and Global Income Inequality*: 7(4).
18. Ovat, O. O. (2005). *Does globalization contribute to economic growth in developing countries? Some empirical lessons from Nigeria. Global Journal of Social Sciences*, 4(2), 37-42.
19. Samimi, P. and Jenatabadi, H. S. (2014). *Globalization and economic growth: Empirical evidence on the role of complementaritie, International Journal Public Administration*, 9(4), 87-99.
20. Shuaib, I. M., Ekeria, O. A. & Ogedengbe, A. F. (2015). *The impact of globalization on the growth of Nigerian economy from 1960–2010: Error correction model analysis. British Journal of Economics, Management and Trade*, 7(1), 78-97
21. 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
22. Todaro, M. P. & Smith, S. C. (2011). *Economic development. 11th Edition, Pearson Education Limited, England.*
23. Utuk, I. O. (2015). *Globalization and economic growth: the Nigerian experience. Journal of Law, Policy and Globalization*, 3(6), 18-28.
24. Zainawa, A.Y. (2006). *Impact of globalization on Nigerian industries: A study of leather footwear industry in Kano, International Journal of Social and Management Sciences*, 7(2), 234-245.