Comparative Analysis of the Long Run Effects of Economic, Political and Social-cultural Globalization on Nigeria's Economic Growth

Akomen Hillary ISIKHUEMEN¹, Oziengbe Scott AIGHEYISI² & Judith Omon ISEGHOHI³

¹Department of Economics and Development Studies, Igbinedion University, Okada, Edo State, Nigeria. ², ³Department of Economics, University of Benin, Benin City, Nigeria. Corresponding Author: Oziengbe Scott AIGHEYISI (oziengbeaigheyisi@gmail.com)

pp 168-174

ABSTRACT

The paper examines the long run effects of economic, political and social dimensions of globalization on economic growth in Nigeria. Annual time series data spanning the period from 1070 to 2014 were analysed with the bounds test approach to cointegration and fully modified ordinary least squares analyses. The study finds significant positive effect of economic globalization on economic growth, and significant negative effect of political globalization on economic growth. The growth effect of social globalization is found to be positive, but not statistically significant. Based on the evidence, the paper recommends greater but cautious integration of Nigeria economy with the global market for goods, services and finance and a comprehensive review of the nation's current membership of international organizations and bilateral and multilateral agreements with a view to pulling out of the ones that are not favorable to her economic growth.

Keywords: Economic Globalization, Political Globalization, Social Globalization, Economic Growth.

1. Introduction

Globalization refers to the growing interconnectedness of the economies, politics and cultures of different countries. This definition indicates that globalization is not just about interconnection of economies in terms of increased trade and finance/capital flows, but it also encompasses interconnection of politics and culture/social life of people around the globe, thereby transforming the world into a so called *global village*. Through this process, new culture/lifestyles are imbibed, countries' political systems are intertwined, interconnected or interlinked, and markets (financial and products) are integrated. Hence, Ghai (1997, p.2) sees globalization as "rapid global spread of some dominant social, cultural and political norms and increasing acceptance of free market and private enterprise as the principal mechanism for promoting economic activities".

Social-cultural globalization refers to cross border movement of cultures and interconnectedness of ideas and knowledge facilitated mainly by migration and communication channels such as the internet, telecommunication networks and the print and electronic media (Goryakin, Lobstein, James and Suhrcke, 2015). Political globalization refers to the tendency towards formation and/or membership of transnational governing bodies such as the United Nations, World Trade Oganisation, World Bank, the European Union, African Union, etc. which apparently erodes the role of the nation-state as a result of transference of some their functions to the newly formed transnational governing bodies (Subasat, 2008).

Expectedly, in line with theoretical prescription and postulations, globalization engenders rapid growth. Proponents of globalization argue that globalization opens infinite growth opportunities as well engender development and social transformation of the less developed countries. However, the globalizationgrowth theory is not supported by anti-globalization economists who are of the view that globalization benefits the rich and highly industrialised (developed) countries, but hurt poor countries which may have to depend on the rich countries for virtually everything, thereby further plunging their economies into deeper economic woes (Aigheyisi, 2013).

Ample studies exist on the effects of economic globalization on economic growth in different countries and regions. Thus the literature is replete with empirical and theoretical studies on the effect of economic globalization on economic growth. This is because until recently various definitions of globalization tend to emphasize the economic aspect of globalization and pay little to political and sociocultural aspects or dimensions of the concept. A shortcoming of the extant literature therefore is the shortage of studies investigating the relative effects of the various aspects of globalizations – economic, social and political – on economic growth. This study therefore intends to contribute to the extant literature.

For ease of presentation, the paper is organized into six sections. Following the introductory section is section two which presents brief background information on the study. Section three presents the review of the literature. Section contains the methodology where amongst others, the theoretical framework is discussed, the model is specified and the estimation technique as well as data sources, measurement and description are presented. The empirical results are presented and discussed in Chapter 5. The evidence based policy recommendations are presented in section six which also concludes the paper.

2. Background to the study

Figure 1 shows the trends in political, social and economic globalization indexes for Nigeria between 1970 and 2014.



Figure 1. Trends in Globalization Indexes of Nigeria. *Source: Data from the KOF Globalization Index*

The figure shows that the political dimension of globalization in Nigeria has been higher than that of economic and social globalization over the years. This reflects the fact that Nigeria has been an active member of numerous international organizations and has been into bilateral and multilateral agreements with several nations in the period under consideration. Until 1985 when the country formally embraced economic globalization by adoption of the Structural Adjustment Programme (SAP), the dimension of social globalization was greater than that of economic globalization. However, following the adoption of economic liberalization policies from 1985, the economic dimension of globalization has been more intensified than that of the social dimension. The low level of social globalization could be attributed to the pitiably low (though rising) number of people having access to communication and internet facilitate which could be associated with the cost of accessing them.

At the global level, there has been more intensification of globalization of the world's economy. This is shown in Figure 2. Generally, between 1970 and 2014 the pace of globalization has been rising, with economic globalization leading other dimensions of globalization. Following economic dimension of globalization is the political dimension of globalization and then the social dimension of globalization.



KOF Index of Globalization Worldwide



Thus, the economic dimension has been the key driver of the interconnectedness process of world economies.

1. Literature Review

Dreher (2003) examines the effect of overall globalization and its categories on economic growth in 123 developing countries over the period from 1970 to 2000. The OLS and the system generalized method of moments (GMM) estimators are employed for the analysis. The study finds that globalization positively impacts economic growth, but no to the extent of reducing poverty significantly. Flow of information which is an aspect of globalization positively affects growth, but political globalization adversely affects it.

The economic growth impact of globalization in Pakistan in the period from 1960 to 2006 is examined in Afzal (2007). Specifically, the study investigates existence or otherwise of long run relationship among economic growth, trade openness and financial integration (which are key component of economic globalization), and the effects of trade openness and financial integration on economic growth. The study finds that the three variables re cointegrated, that is, long run relationship exists among them, and that globalization will impact favourably on growth if sound policies are pursed by the government.

Chang and Lee (2010) examines the co-movement between overall globalization and economic growth, and the co-movement between components of globalization (economic, political and social) and economic growth in 23 OECD countries in the period from 1970 to 2006 using the Pedroni's panel cointegration and panel causality tests. The study finds that all the variables converge in the long run. This implies existence of long run relationship among them. The causality test results show long run causality running from economic social and political globalization to economic growth.

Fidelis and Olukayode (2012) employ OLS technique

for estimation of separate multiple regression models to investigate the effect of social, political and economic dimension of globalization on economic growth (using growth rate of real GDP per capita as proxy) in Nigeria in the period from 1970 to 2010. The results of estimation of the models show that political and economic globalization positively and significantly affect economic growth, while social globalization negatively and significantly affects growth in the country.

Ying, Chang and Lee (2014) examined the impact of economic, social and political globalization on economic growth of the 10 ASEAN countries in the period from 1970 and 2008 using the Fully Modified Ordinary Least Squares (FMOLS) estimation technique. In the study, real GDP is used to proxy economic growth. The study finds significant positive effect of economic globalization on economic growth. The effect of social globalization on economic growth of the sub region is found to be negative and significant, while the effect of political globalization on growth of the sub region is also negative, but not statistically significant.

Dima (2014) investigates the relationship between globalization, economic growth and educational attainment in Romania in the period from 1990 to 2011 using simple regression model estimated with the ordinary least squares (OLS) estimation technique. The study finds significant positive effect of globalization on economic growth (measured as growth rate of GDP). It also finds significant and positive effect of educational attainment on GDP per capita. Further evidence from the study is positive and significant effect of education attainment on globalization, suggesting that the country is more inclined to embrace globalization the more educated the populace is.

The effects of political, economic and social globalization on economic growth in a sample of 74 developing countries in the period from 1981 to 2011 is investigated in Kilic (2015) using fixed effect estimators and the Dumitrscu-Hurlin panel causality test. Annual percentage change in real GDP is used to proxy economic growth in the study. The study found significant, positive effects of economic and political globalization on growth, while the growth effect of social globalization is found to be negative. The panel causality test result indicates bi-causal relationship between economic globalization and growth, and social globalization and growth. Unidirectional causality is however observed between political globalization and economic growth, with causality running from political globalization to GDP.

Neagu and Dima (2017) investigate the impact of overall globalization and its components namely economic, social and political components) on economic growth in Romania in the period from 1990 to 2013 using Granger causality test and the ordinary least squares (OLS) estimation technique for estimation of a linear regression model. The study finds significant positive effect of globalization on GDP per capita, and unidirectional causality between globalization and GDP per capita, with causality running from globalization to GDP per capita. Further evidence from the study is that economic and political globalization positively and significantly affect economic growth (GDP growth rate), while social globalization adversely affects it.

Savrul and Incekara (2017) examined the effect of economic, social and political globalization on economic growth of the 10 member countries of the ASEAN in the period from 1970-2015 using the Panel Extended Generalised Least Squares (EGLS) estimation technique. Gross domestic product is used as proxy for growth in the study. The result of the analysis shows that economic globalization negatively and significantly affects economic growth, while social globalization positively affects growth of the sub region. The effect of political globalization on economic growth is not statistically significant, though it is positive.

Reeshan and Hassan (2017) examine the impact of overall globalization and its components on economic growth in a sample of 86 developing countries using multiple regression analysis. The study finds that the effect of overall globalization, economic, globalization, social globalization and political globalization on economic growth is negative, but not statistically significant. It however finds that the effect of economic globalization on FDI is positive and significant. This suggests that the positive effect of globalization on FDI inflows does not spillover to the economies of LDCs.

The growth effects of political, social and economic dimensions of globalization in a sample of 100 developing countries are investigated in Majidi (2017). The study finds significant negative effect of political globalization on economic growth in upper middle income countries. It also found significant positive effect of political globalization and nonsignificant effects of economic and social globalization on economic growth in lower middle income developing countries.

We see from the review of the literature that apart from the study by Fidelis and Olukayode (2012), no other study to the best of our knowledge has investigated separately the effects of the dimensions of globalization on economic growth in Nigeria. However, the study employed the ordinary least squares estimation technique which ignores the probable problem of endogeneity of the regressors which introduces some bias in the estimated model rendering the result less reliable. In this study, to overcome the problem of endogeneity, we adopt an estimation technique which accounts for endogeneity of regressors.

- 2. Methodology
- 2.1. Theoretical Framework, Model Specification and Estimation Technique

The study relies on the new endogenous growth theories which identify openness or globalization as a key determinant of growth. It also relies on the globalization theory of transformationalism which posits that globalization reflects increased interconnectedness in economy, political and cultural matters across the world, engendering creation of a shared social space. To estimate the effect of each of the components of globalization on economic growth, we specify, following the theoretical model developed in Kilic (2015), an endogenous growth model in its functional form as:

pcyg = f(ecogl, polgl, socgl).....

[1]

Equation 1 expresses growth in per capita income as a function of economic globalization, political globalization and social-cultural globalization. The equation is expressed in stochastic form as:

 $\begin{array}{l} pcyg_t = \tilde{\delta}_0 + \delta_1 ecogl_t + \delta_2 polgl_t + \delta_3 socgl_t + \\ \epsilon_t, \dots, \\ \begin{bmatrix} 2 \end{bmatrix} \end{array}$

Where $pcyg = Annual growth rate of Real GDP per capita (proxy for economic growth), ecogl = index of economic globalization, polg = index of political globalization; socgl = index of social globalization. <math>\varepsilon$ is the eror term. Equation 2 depicts the long run relationship between the explanatory variables and the dependent variable.

The a priori expectations are: $\delta_1 > 0$, $\delta_2 > 0$, $\delta_3 > 0$. Based on theoretical predictions, all dimensions of globalization are expected a priori, to positively affect economic growth. Greater integration of an economy with the global market, relaxation of barriers to capital flows, member ship of international organization and cross border transmission of cultural and social values are expected to enhance the growth of an economy.

The variables shall be tested for unit root using the augmented Dickey Fuller and the Phillips-Perron tests. The outcome of this test will determine the test procedure for cointegration to ascertain existence or otherwise, of long run relationship among the variables. If unit root test results indicate that the variables are of mixed order of integration, the autoregressive distributed lag (ARDL)(also referred to as bounds test) approach to cointegration (which is designed to correct for regressor endogeineity) will be used to test for cointegration (or long run relationship). If the variables are all integrated of order 1, the Johansen approach to cointegration or the Engle-Granger two-steps approach to cointegration would be used to test for cointegration.

If the cointegration test indicates existence of log run relationship, the long run coefficient will then be estimated.

2.2. Data and Sources

Data used for the study are annual times series data covering the period from 1970 to 2014. Data on growth rate of real GDP per capita were sourced from the World Bank's World Development Indicators (2017). Data on index the index of each dimension of globalization were obtained from the KOF Swiss Economic Institute's Index of Globalization also referred to as the KOF Index of Globalization originally computed by Dreher (2006) and revised by Gygli, Haelg and Sturm (2018). The index which measures the political, social and economic dimensions of globalization, observes changes in the globalization of a series of countries over a long-term period. It is based on 23 variables, and the updated version covers 187 countries over the period from 1970 to 2014. This dictates the scope of the study.

2.3. Description and Measurement of Measurement

Economic Growth: This measured as the annual growth rate of real GDP per capita.

Economic Globalization: This dimension of globalization reflects the extent of cross border trade and investment and revenue flows to GDP. It also reflects the impact of restrictions on transaction involving trade and capital flows.

Social Globalization: This takes cognizance of three mechanisms through which people socialize, namely (i) cross border personal contact through the mechanisms or channels of letters, telephone calls, tourist flows, etc. (ii) cross-border information flows through the channels of TV, internet, foreign press products, etc. (iii) cultural proximity to the global main stream.

Political Globalization: This dimension of globalization is measured in terms of the number of a country's membership of international organisations, the number of foreign embassies resident in a country, the number of bilateral and multilateral agreements concluded by a country since 1945, the number of UN peace missions in which the country has been engaged.

The statistical robustness of usage of the KOF index of globalization in International Economics literature has been proven by Gozgor (2017). On the basis of this, as in many previous empirical studies, the KOF index of globalisation is adopted in this study.

5. Results and Discussions 5.1. Unit Root and Cointegration Tests

The results of the unit root test for the variables of our model are presented in Table 1.

The unit root test results indicate that apart from growth rate of real per capita income which is stationary at level, other variables are stationary at first differences. Thus, the variables are of mixed order of integration. Considering that the variables of are mixed order of integration, the appropriate method to test for cointegration is the ARDL approach. The result of the test is presented in Table 2.

Table 2. ARDL (Bounds	Test for Cointegration).
eurode Teet	Null Llunathagia, Na Javala relationshir

F-Bounds Test	N	Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	l(1)
		Asymptotic: n=1000		
F-statistic	8.774344	10%	2.37	3.2
k	3	5%	2.79	3.67
		2.5%	3.15	4.08
		1%	3.65	4.66

Source: Authors' computations using EVIEWS 10

The cointegration test result indicates that the variables are cointegrated as the computed F-statistic is greater than the upper bound I (1) critical value even at the 1% level. Thus the null hypothesis of no levels relationship between the explanatory variables and the dependent variable is rejected even at the 1% level.

5.2. Long Run Model Estimation Result

The result of estimation of the long run model based on ARDL (1,1,0,0) is presented in Table 3.

Table 3. Long Run Estimation Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECOGL	0.344939	0.139648	2.470064	0.0181
POLGL	-0.261313	0.145161	-1.800161	0.0798
SOCGL	0.191019	0.428784	0.445491	0.6585
C	4.977322	12.75153	0.390331	0.6985

$R^2 = 0.54$, Adj $R^2 = 0.53$, DW = 2.10 Source: Authors' computations using EVIEWS 10

The result shows that only the economic and political dimensions of globalization have had significant effects on economic growth in Nigeria. While the growth effect of economic globalization is positive and significant at the 2.5% level, that of political globalization has been negative and significant at the 10% level. This suggests that while economic globalization has tended to be favourable to Nigeria's economic growth, political globalization tends to have adversely affected the growth of the nation's economy, an indication that she is not benefiting from some of

Table 1	Unit F	Root Tests	Results
I abit I		1001 10515	Itcourto

Table 1. Unit Root Tests Results							
	А	ugmented	Dickey Ful	ler (ADF)	Unit Root	Test	
Variables	Levels			First Difference			Order of
	ADF test	Test	Inference	ADF	Test	Inference	Integration
	statistic	Critical		test	Critical		
		Value		statistic	Value		
		(5%)			(5%)		
Pcyg	-5.98	-3.52	S	-	-	-	0
Ecogl	-1.89	-3.52	NS	-7.85	-3.52	S	1
Polgl	-2.61	-3.52	NS	-6.99	-3.52	S	1
Socgl	-1.03	-3.52	NS	-4.69	-3.52	S	1
		Philli	ps Perron (I	PP) Unit Re	oot Test	-	
Variables		Levels		First Difference			Order of
	PP test	Test	Inference	PP test	Test	Inference	Integration
	statistic	Critical		statistic	Critical		
		Value			Value		
		(5%)			(5%)		
Pcyg	-6.00	-3.52	S	-	-	-	0
Ecogl	-1.93	-3.52	NS	-7.84	-3.52	S	1
Polgl	-2.62	-3.52	NS	-6.99	-3.52	S	1
Socgl	-1.29	-3.52	NS	-4.71	-3.52	S	1
Source: Authors' computations using EVIEWS 10.							

her memberships of international organization and current bilateral and multilateral agreements with other countries. The observed positive effect of economic globalization on economic growth corroborates findings from previous studies such as Ying, Chang and Lee (2014), Savrul and İncekara (2017) and Kilic (2015). The observation that political globalization negatively affects economic growth in Nigeria corroborates the result from Reeshan and Hassan (2017), but goes contrary to the observation in Fidelis and Olukayode (2012). The effect of social globalization on economic growth has not been significant.

The coefficient of determination (R2) of the model indicates that the model has a fairly high goodness of fit, as 54% of the systematic variation in the dependent variable is explained by the regressors. The Durbin-Watson (DW) statistic of 2.10 points to absence of the problem of autocorrelation in the model.

5.3. Model Stability Test

The long run stability of a model enhances its reliability for policy purposes. In this study, the long run structural stability of the estimated model is tested using plots of the cumulated sum of residuals (CUSUM) and the cumulative sum of squared residuals (CUSUM squares) prescribed by Brown, Durbin, Evans (1975) for testing the constancy of regression relationships over time. The results are presented in Figure 3a and Figure 3b respectively.



Since the plots of both CUSUM and CUSUM of Squares lie between the 5% critical bounds, it can be reasonably inferred that the model is structurally stable. Thus stable, constant long run relationship exists between the dimensions of globalization and Nigeria's economic growth. Hence the estimated long run model can be relied upon for policy formulation.

5.4. Robustness Check

For robustness check, we re-estimate the model using the Fully Modified Ordinary Least Squares estimator which like the bound test approach to estimation of long run relationship also corrects for endogeneity. The result of the estimation is presented in Table 4.

Table 4. DOLS Estimation Output of Long Run Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECOGL	0.340161	0.111814	3.042193	0.0041
POLGL	-0.276907	0.113358	-2.442753	0.0191
SOCGL	0.220104	0.339716	0.647904	0.5207
C	5.869532	9.915757	0.591940	0.5572

Source: Authors' computations using EVIEWS 10

The result of from the DOLS estimation is similar to that from the ARDL long run estimation. As in the previous estimation, economic and political dimensions of globalization significantly affect economic growth, while social dimension of globalization does not. Thus our results are quite robust to alternative estimation methods.

6. Recommendations and Conclusion 6.1. Recommendations

Based on the empirical evidence, the following are recommended for policy consideration:

- i. Considering that economic globalization was found to positively and significantly affect economic growth, there is need for greater integration of the economy with the global markets for good, services and finance or capital. This entails cautious removal of restrictions or barriers to the trade and capital flows.
- ii. The observed negative effect of political globalization on the growth of Nigeria's economy suggests that the country is not benefiting much from her membership of some international organization and her bilateral and multilateral agreements with other countries. In consideration of this, there is need to review some of these memberships and agreements and pull out of the unfavourable ones.

6.2. Conclusion

This study examines the long run effects of various dimensions of globalization on economic growth in Nigeria. Employing various estimation techniques, the study finds that economic globalization positively and significantly affects the nation's economic growth, while political dimension of globalization adversely affects it. The social dimension of globalization was found to positively affect economic growth, but its effect is not significant. Thus, the dimension of globalization that has contributed favourably to the growth of Nigeria's economy is the economic dimension. In view of the empirical evidence from the study, it was recommended that the country embrace economic globalization through cautious liberalization of trade and capital flows, and review some of her memberships of international organizations as well as her bilateral and multilateral agreements so as to pull out of the unfavouarable ones.

174 Comparative Analysis of the Long Run Effects of Economic, Political and Social-cultural Globalization on Nigeria's Economic Growth

REFERENCES

- Afzal, M. (2007). The Impact of Globalization on Economic Growth of Pakistan. *The Pakistan Development Review*, 46(4), Winter, 723-734.
- Aigheyisi, O. S. (2013). Economic Growth and Human Development Effect of Globalization in
- Nigeria: Evidence in the Democratic Era. Journal of Economics and Sustainable Development, 4(12), 24-33.
- Ali Fagheh Majidi, (2017). Globalization and Economic Growth: The Case Study of Developing
- Countries. Asian Economic and Financial Review, Asian Economic and Social Society, 7(6), June, 589-599.
- Brown, R. L., Durbin, J. and Evans, J. M. (1975). Techniques for Testing the Constancy of
- Regression Relationships over Time. Journal of the Royal Statistical Society. Series B (Methodological), 37(2), 149-192.
- Chang, C. and Lee, C. (2010). Globalization and Economic Growth: A Political Economy
- Analysis for OECD Countries. Global Economic Review (Perspective on East Asian Economies and Industries), 39(2), 151-173.
- Dima, S. (2014). The Link between Globalization, Economic Growth and Education: An
- Analysis in the Case of Romania. *Studia Universitatis "Vasile Goldiş" Arad Economics Series*, 24(4), 94-103.
- Dreher, A. (2003). Does Globalization Affect Growth? Retrieved from <u>https://jgea.org/resources/download/1351.p</u> <u>df on 13 July 2018</u>
- Dreher, A (2006). Does Globalization Affect Growth? Evidence from a new Index of
- Globalization. Applied Economics 38(10), 1091-1110.
- Fidelis, O. O. and Olukayode, E. M. (2012). Globalization and Economic Growth in Nigeria: A
- Multidimensional Analysis. Pakistan Journal of Social Sciences, 9(2), 89-95.
- Ghai, D. (1997). Economic Globalization, Institutional Change and Human Security. United
- Nations Research Institute for Social Development Discussion Paper, Number 91.
- Goryakin, Y., Lobstein, T., James, W. P. T. and Suhrcke, M. (2015). The Impact of Economic,
- Political and Social Globalization on Overweight and Obesity in the 56 Low and Middle Income Countries. *Social Science & Medicine, 133*, May, 67-76.

- Gozgor, G. (2017). Robustness of the KOF Index of Economic Globalization. *The World*
- *Economy*, 41(2), 414-430.
- Gygli, S., Haelg, F. and Sturm, J. (2018). The KOF Globalization Index – Revisited, *KOF*
- Working Paper, No. 439.
- Kilic, Cunyte (2015). Effects of Globalization on Economic Growth: Panel Data Analysis for
- Developing Countries. *Economic Insights Trends* and Challenges, 67(1), 1-11.
- Neagu, O. and Dima, S. (2017). Impact of Globalization on Economic Growth in Romania: An
- Empirical Analysis of Its Economic, Social and Political Dimensions. *Studia Universitatis "Vasile Goldis" Arad. Economics Series,* 27(1), 29-37.
- Reeshan, A. and Hassan, Z. (2017). Impact of Globalization on Economic Growth among
- Developing Countries. International Journal of Accounting & Business Management 5(1), April, 164-179.
- Savrul, M. and Incekara, A. (2017). The Effect of Globalization on Economic Growth: Panel
- Data Analysis for ASEAN Countries. Proceeding from the International Conference on Eurasean Economies 2017 (Retrieved from <u>https://www.avekon.org/papers/1870.pdf</u> on 6 June 2018.)
- Turan Subasat, 2008. What is Globalization and What is Not?: A Political Economy Perspective.
- Izmir University of Economics Working Papers 0801
- Ying, Yung-Hsiang, Chang, Koyin and Lee, Chen-Hsun (2014). The Impact of Globalization of
- Economic Growth. *Romanian Journal of Economic Forecasting*, 17(2), 25-34.
- World Bank (2017). *World Development Indicators*, New York: World Bank.