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Abstract

This study examines the impact of composite index of globalization as well as its economic, social and political dimensions by distinguishing the de facto and de jure aspects. Five-year non-overlapping window for the panel dataset of 46 selected developing countries over the period from 1980 to 2018 has been used to asses this impact. Two step generalized method of moment (SGMM) has been used and the results show that globalization influence economic growth in developing countries. It also demonstrates that de facto and de jure globalization promotes economic growth. Moreover, de facto, de jure political globalization and de jure economic globalization boosts economic growth. While de facto, de jure social globalization and de facto economic globalization hinders growth. Furthermore, results also suggest that there are some important unexplored consequences of globalization in developing countries; therefore, future research should appraise the appropriate dimensions of globalization to accelerate economic growth.

Keywords: De facto globalization, De jure globalization, Economic Globalization, Economic growth, Panel data

JEL Classification: C23, F15, F21, F40, F43, O10, O55

1. Introduction

Remarkable growth has been witnessed in globalization in the last two decades which is illustrated by global interdependencies and interconnections between people especially in the developing countries as the impact of globalization is exceptional. It is a multifaceted idea, conceptualised as a method of establishing links between actors at a multicomponent level of the capital flow, ideas, images, and information, by facilitating the movement of people and commodities (Clark, 2000; Norris, 2000). It has lifted the traditional limitations of investigation and policy relating to resource flows and international trade (Cook & Kirkpatrick, 1997). Furthermore, by diminishing the boundaries of national economies in turn, international integration, diffusion of

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technology, strong institutions, and governance, which lead to the creation of one continent and creates complex interdependencies (Dreher et al., 2008).

There is ongoing debate regarding the effects of globalization as it has affected both the developing and the developed countries as well as the daily lives of rich and poor residents of these countries. It's boon for some while an anathema for others. For some economies, it is a factor in opening up new opportunities and had a favourable impact on their economic growth (Ahmad, 2019; Khoshnevis Yazdi & Shakouri, 2017; Menhas et al., 2019). On the other hand, on some economies it contributes to poverty, unfair income distribution, and hinder effects on their economic growth (Fainstein, 2001; Gourdon et al., 2008).

The internationalization of economic activity is not a new phenomenon. Although, the economies were connected to some extent before World War-II (1945) international trade increased exceptionally after 1945, mainly because of the international monetary and trade regime created in Bretton wood conference and GATT (General agreement of Tariff and Trade). Over time globalization has become more complex. Earlier international trade expansion was categorized just by the strengthening of the economic connections that exceed domestic boundaries at the functional level. Now, the inclusion of economic agents and structure at the micro level, resource flows, and trade have become more complex through the behaviour and strategies of firms.

Globalization is a complex-historical idea having economic, social, and political dimensions. Actual flows and activities are represented by variables in the de facto aspect, whereas theoretical economic policies are represented by variables in the de jure aspect (Gygli et al., 2019). There are numerous studies that explain the relationship between globalization and economic growth. Although, the empirical literature is ambiguous on the linkages between globalization and growth, several empirical studies conjecture that globalization and its dimensions have a stimulating effect on economic growth (Egbetunde & Akinlo, 2015; Gurgul & Lach, 2014; Olimpia & Stela, 2017; Samimi & Jenatabadi, 2014). However, other studies exhibit hindering effect of globalization on economic growth. A plausible reason for these inconclusive results is different handling of globalization by different researcher (Barry, 2010; Musila & Yiheyis, 2015).

The motivation of this study is to analyse the empirical linkages of globalization, its three dimensions (economic, social, and political) and its aspects (de facto and de jure) on economic growth in the selected sample developing countries. Globalization do enhance the competition, yet it is not clear if the economy will get significant benefit from it or not. The general opinion about globalization is that it not only gives development opportunities but also brings new risks and challenges.

In case of developing countries, which are not much experienced in various aspects of globalization, the creation of greater industrial competition by globalized countries for upper, middle and lower-income countries puts pressure on public sector to deliver services efficiently. Thus, hampers the economic growth of less developed economies. The reason behind this relationship is due to limited and inefficient use of resources. The literature on economic growth and globalization exhibits that there is not any conclusive evidence on the effects of globalization on economic growth; thus, a rigorous empirical analysis is needed to access the impact of globalization on economic growth, for making further decision.

The remaining section of the study is organized as follows: section 2 briefly describes the

literature review. Section 3 explains the theoretical background. Section 4 discusses the data, methodology and empirical results. Section 5 explains the conclusion.

2. Literature Review

The link between globalization and economic growth is considered as an important area in the growth literature. The debate in the literature on the relationship between globalization and growth are contradictory. Hence, the literature is categorised into two strands. One strand of literature suggests that globalization accelerate economic growth and the other strand of literature suggests that globalization hinders economic growth.

Numerous empirical studies show that globalization boosts economic growth (Bataka, 2019; Chang et al., 2011; Dreher, 2006; Edwards, 1998; Gurgul & Lach, 2014; Gygli et al., 2019; Harrison, 1996; Khoshnevis Yazdi & Shakouri, 2017; Kilic, 2015; Menhas et al., 2019; Tsai, 2007; Villaverde & Maza, 2011; Xu et al., 2021; Ying et al., 2014). The enhancing effect of globalization on economic growth due to the efficient

allocation of domestic resources, diffusion of technology, improved factor productivity, and capital accumulation has been shown by different studies (Borensztein et al., 1998; Grossman & Helpman, 1991; Mishkin, 2009; Samimi & Jenatabadi, 2014).

The dimensions of globalization proposed by Dreher (2006), explains that globalization promotes economic growth which include economic and social dimension, but political dimension of globalization has no impact on economic growth. These findings support the view that economic globalization enhances economic growth (Bataka, 2019; Gurgul & Lach, 2014; Villaverde & Maza, 2011; Ying et al., 2014). Furthermore, Villaverde and Maza (2011) claim that globalization leads to income convergence across countries. The results also confirm that the impact of globalization is higher than that of investment on economic growth. Moreover, Quinn et al. (2011) concluded that higher per capita income is achieved through the increase in globalization.

Few empirical studies examine the impact of de facto and de jure aspects of globalization on economic growth (Bataka, 2019; Gygli et al., 2019). Gygli et al. (2019) suggests that globalization has boosted economic growth for developed and developing countries. Bataka (2019) obtain the same results for Sub Saharan African (SSA) countries. Moreover, it shows that the de facto aspect of globalization and its economic and political dimension have an ineffective impact on economic growth but find a positive impact only for the social dimension of globalization. The positive findings are consistent with the theory of Global Knowledge Spill-over. Both studies show similar results for de jure globalization and its two dimensions (economic and social) that have a stimulating effect on growth, with the exception of de jure political globalization. The results confirm that globalization encourages the expansion of SSA economies and further suggests that government policies and laws play a significant part in regulating globalization.

The second strand of the literature argues that globalization hampers economic growth in countries that face political instability, weak institutions, and have inefficient resource allocation (Alesina et al., 2000; Berg & Krueger, 2003; Borensztein et al., 1998; Gourdon et al., 2008; Rodriguez & Rodrik, 2000; Rodrik, 1998). However, the positive impact is supported by Dollar (1992); Sachs et al. (1995) and Edwards (1998), but these studies are challenged by Rodriguez and Rodrik (2000) due to missing of important control variables and use of weak index of trade openness which leads to

dominating the positive effect of globalization on economic growth. However, Warner (2003) contradicts the findings of Rodriguez and Rodrik (2000) due to use of an uncommon index trade openness on restrictions. Along with this, Warner (2003) also points out that they only focused tariffs and quotas for measuring trade restriction while ignore the remaining barriers.

Generally, financial integration is linked with deep financial markets (Ibrahim et al., 2016; Volz, 2016). Recently, a major transformation has been witnessed in the financial markets due to financial globalization, which is leading to a more integrated financial market globally. The outcomes of financial integration revealed in many countries a rapid decline in capital control (Chen & Quang, 2014). Financial integration improves economic growth by reducing capital control as well as by efficient allocation (Baele et al., 2004).

Prior literature that has analyzed the impact of globalization on economic growth mainly focused on the developed and developing countries such as European, African and selected South Asian countries over the periods up to 2014 databases (Barry, 2010; Dreher, 2006; Hassan 2019; Kilic, 2015; Maqbool, 2015; Moghaddam, 2012; Polasek & Sellner, 2011). However, there is limited literature for developing countries on the impact of different aspects of globalization on economic growth. The aspects of globalization suggest that flow of information, economic actual flow and restriction in developing economies boost growth but literature suggests that industrial economies enjoy growth rather than developing countries in the process of globalization (Dreher, 2006). Economic globalization promotes economic growth in case of organization of Islamic corporation (OIC) (Samimi & Jenatabadi, 2014) and in case of OECD countries (Bergh & Karlsson, 2010).

3. Methodology and Data Sources

3.1 Theoretical Background

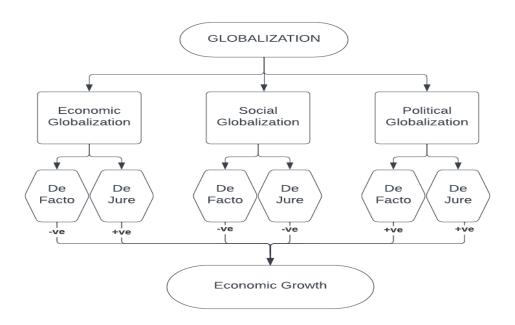
Innovative theories suggest that FDI and trade integration plays the most integral part in economic globalization. Trade integration further supported as a source of economic progress by optimistic theories in this domain. It improves the diffusion of technology and knowledge through the import of highly technical commodities, which leads to higher economic growth (Almeida & Fernandes, 2008; Baldwin et al., 2005; Barro &

Martin, 1997; Bataka, 2019; Grossman & Helpman, 1993). Moreover, economies of scale and the potential advantages of specialization from openness to international trade which stimulates economic growth and productivity (Alesina et al., 2000).

According to the neo-classical growth model, capital moves from developed countries to developing countries due to differential in capital return. Capital inflows from developed countries can add to the inadequate savings of developing countries and lower investment costs; thus, promoting investment and economic growth. The flow of FDI, technology transfer, managerial and organizational know-how, and research on development, especially from developed to developing nations, becomes a source of financial globalization (Borensztein et al., 1998). In turn, this might boost productivity of domestic firms and promote growth.

However, some studies of the endogenous growth model support the view that globalization is a threat to growth instead of a stimulator. If a country specializes in industries with low potential for productivity growth or with little technical innovation, openness to trade could be detrimental to long-term prosperity (Redding, 1999; Young, 1991).

Figure.1 Conceptual framework of Globalization and Economic Growth



Political globalization offers opportunities for the formation of powerful democratic institutions which are essential for development. It also allows organizations to disseminate the structures and policies of national governments. Political globalization can also facilitate the knowledge exchange on issues related to maintenance of international peace and human rights, both of which are crucial for long-term growth. However, the other hand, the emergence of egotistic leaders and special interest groups as well as conflicts can arise as a result of political globalization (Nahavandian & Ghanbari, 2004). Political globalization is viewed in this light as having a negative impact on economic expansion.

However, social globalization could be a foundation for the advancement of social status and the development of citizenship rights, resulting in economic participation, volunteerism, public service, and other activities to enhance the living standard of all citizens, which leads to influence on a country's economic growth (Majidi, 2017).

The previous studies confirm that all the dimensions of globalization have the tendency to affect economic growth significantly. Therefore, based on the study of Dreher (2006) and Gygli et al. (2019) the empirical model of this study is as follow

$$Growth_{it} = f(Glob, inflation, GFCF, GGFCE, FR, LE)$$
 (1)

$$Growth_{it} = \alpha_{it}Glob_{it} + \sum kx_{it} + \eta_i + \varepsilon_t + \mu_{it}$$
 (2)

To examine the effect of globalization, its dimensions and its aspect on economic growth, composite globalization index has been used. The data sample includes 46 selected countries which are selected as per data availability, over the period from 1980-2018. Growth is a 5-year average of country i and t period, with i = 1, 2, 3,... 46 and t = 1, 2, 3,... 8. We convert all variables' data into a 5-year non overlapping window. GLOB is the KOF index of globalization for country i and time t. We use the initial rate of GDP at the start of the 5-year window to calculate the steady-state conditional convergence rate. Macroeconomic variables extracted from the Penn World Tables 10.

To generate precise estimation findings, we choose the control variables in accordance with the economic growth literature (Barro, 1991, 1996; Levine & Renelt, 1992). Gross fixed capital formation (GFCF) as a percentage of GDP is a proxy of domestic

investment as higher domestic investment stimulates economic growth. General Government final consumption expenditure (GGFCE) as percentage of GDP as a proxy of government consumption although, the effect of government consumption on growth is not evident in the literature. On the one hand, the increase in government consumption leads to a crowding out and inefficiencies. While, on the other hand, investment in infrastructure and the legal framework facilitates the processes and stimulates growth (De Haan & Sturm, 2000). Life expectancy (LE) is the proxy of human capital and fertility rate (FR) is the proxy of population growth. Higher population has inverse relation with growth (Dreher, 2006).

4. Estimation Methods

According to Arellano and Bond (1991), the use of the GMM estimate technique is best for data of panel studies. The GMM is used to control for measurement errors, autocorrelation and omitted biases variables in panel data set. Additionally, the GMM technique presents the reliable estimation results and controls endogeneity bias, which refers to the tendency of independent variables and error terms to interfere with the optimal outcome (Ullah et al., 2018). The dynamic panel data model has two types namely; Difference GMM and System GMM. These two models have their own benefits. To address simultaneity and endogeneity bias that occur as a result of the probable association between globalisation and economic growth, we use the system GMM dynamic panel data technique (Chang et al., 2013; Nasreen et al., 2020; Quinn et al., 2011; Villaverde & Maza, 2011).

Furthermore, Hansen-test is used to determine if the instrument is appropriate for the model (Jara et al., 2019; Nekhili et al., 2020). Moreover, AR(1) and AR(2) are the first and second order serial correlation tests asymptotically distributed as N(0,1) with the Ho of no 1st and 2nd order serial correlation, were employed to assess instrument reliability. These tests are based on the null hypothesis "the Instruments are valid" and the hypothesis that there is no serial correlation present in the error term. This study uses the two-steps system GMM estimation technique considering previous research to analyse the nexus between globalization and economic growth for developing countries (Bahoo et al., 2020; Cicatiello et al., 2021; Contractor et al., 2020; Hayat, 2019; Xu et al., 2021).

4.1 Empirical analysis

The results of summary statistics, Pearson's correlation, fixed effect model and list of countries are given in the Appendix. From the summary statistics table A1 (panel A), it can be seen that over the period of 1980-2018, the mean value of globalization is approximately 3.852 and standard deviation value 0.264. Therefore, the averages of growth (3.220), inflation (-1.087), GFCF (-1.781), GGFCE (-1.760), fertility rate (1.245), life expectancy (4.138). The results of the correlation matrix in table A1 (panel B) report coefficient of explanatory variables. Globalization is positively related to inflation, government investment, and life expectancy. While negatively related to the government consumption and fertility rate. This study report that fixed effect model is appropriate after performing Hausman test.

The results of the effects of globalization and its dimensions on economic growth are shown in Table 1. The first column shows that the impact of globalization on economic growth. The second column show the impact of economic globalization, Column 3rd and 4th show the impact of social and political globalization on economic growth respectively. The coefficient of initial is negative and significant which show the conditional convergence (Barro, 1991; Levine et al., 2000; Mankiw et al., 1992). The convergence is observed in globalization and it all dimensions (Villaverde & Maza, 2011). The coefficient associated with globalization in column 1 is positive and significant. The positive coefficient shows that globalization promotes economic growth such as access to international capital, emergence of new opportunities, transfer of technology, and improved communication, energy, the working environment, and quality of work. This result is in line with (Bataka, 2019; Dreher, 2006; Gygli et al., 2019). Moreover, column 2 and 4 respectively show that economic and political globalization have a positive impact on growth (Chang et al., 2013; Chang & Lee, 2010). However, in column 3, social globalization has a negative and significant impact on growth. Our results are consistent with the view of Kilic (2015), for developing countries and economic and political globalization are more helpful in the process of growth relative to social globalization.

Table 1: Impact of Globalization and its Dimensions on Economic Growth through SGMM

Variables	(1)	(2)	(3)	(4)
	Overall	Economic	Social	Political
	Globalization	Globalization	Globalization	Globalization
Initial	-1.916**	-0.633**	-5.130***	-2.074***
	(0.013)	(0.047)	(0.000)	(0.000)
GLOB	0.015**	0.022**	-0.033**	0.019***
	(0.015)	(0.048)	(0.013)	(0.000)
INF	-0.049***	-0.077***	-0.012	-0.010***
	(0.005)	(0.009)	(0.718)	(0.001)
GFCF	0.034**	0.028***	0.049**	0.025**
	(0.052)	(0.001)	(0.025)	(0.021)
GGFCE	-0.015**	-0.010**	-0.063***	0.051
	(0.027)	(0.033)	(0.001)	(0.910)
FR	-0.026	-0.016	-0.013***	0.047
	(0.893)	(0.892)	(0.005)	(0.889)
LE	-0.023	0.010	0.030	0.030
	(0.606)	(0.639)	(0.161)	(0.583)
Constant	-8.891	3.465	66.429***	20.424**
	(0.739)	(0.827)	(0.007)	(0.015)
AR (2)	-1.61	-1.31	-1.25	-1.14
P-value	(0.107)	(0.190)	(0.212)	(0.252)
Hansen	41.77	26.73	6.66	38.43
P-value	(0.169)	(0.479)	(0.247)	(0.168)
OBS	350	305	350	350
Countries	46	46	46	46

Note: ***show significance at 1%, **show significant at 5% and * show significant at 10%. P-values are in parentheses The P-value of Hansen-j test suggests the validity of instruments.

Economic globalization makes it difficult for national governments to maintain control over their citizens (Allison, 2000; Dreher, 2006). Thus, the size of the coefficient of economic globalization is roughly double then remaining dimensions (Dreher, 2006; Gygli et al., 2019). Moreover, substantial integration might result in changes to political or economic procedures, which would encourage growth. However, it is negative in case of social globalization which show that it has negative impact on economic growth. These results are in line with the literature such as (Bergh & Karlsson, 2010; Dreher, 2006; Gygli et al., 2019; Kilic, 2015; Samimi & Jenatabadi, 2014).

Inflation has a negative coefficient which means that it hinders the growth. Inflation reduces the purchasing power of money which has a detrimental effect on economic expansion (Bataka, 2019; Dreher, 2006; Gurgul & Lach, 2014). In addition, inflation

rate also encourages spending rather than saving. When expenses are rising, people are more likely to acquire more products now before they become more expensive.

Table 2: Impact of De facto aspect of Globalization on Economic Growth through SGMM

Variables	(1)	(2)	(3)	(4)
	Overall	Economic	Social	Political
	Globalizatio	Globalization	Globalization	Globalization
	n			
Initial	-1.992**	-2.598***	-4.065***	-2.355***
	(0.026)	(0.000)	(0.001)	(0.000)
GLOB	0.013*	-0.014**	-0.059*	0.015***
	(0.051)	(0.042)	(0.085)	(0.005)
INF	-0.011**	-0.036**	-0.047	-0.012***
	(0.018)	(0.029)	(0.232)	(0.001)
GFCF	0.031**	0.048***	0.050***	0.015*
	(0.049)	(0.000)	(0.009)	(0.065)
GGFCE	-0.025**	-0.029***	-′0.052***	-0.086**
	(0.014)	(0.001)	(0.001)	(0.027)
FR	-0.020	-0.046**	-0.094**	-0.015
	(0.315)	(0.023)	(0.014)	(0.629)
LE	-0.003	0.038	0.012	0.088
	(0.963)	(0.449)	(0.235)	(0.122)
Constant	26.356*	26.896	21.623	18.291***
	(0.095)	(0.271)	(0.585)	(0.002)
AR(2)	-1.35	-1.25	-0.67	-0.93
P-value	(0.178)	(0.212)	(0.504)	(0.353)
Hansen	37.27	9.65	9.25	35.57
P-value	(0.203)	(0.140)	(0.235)	(0.348)
OBS	350	309	302	309
Countries	46	46	45	46

Note: ***show significance at 1%, **show significant at 5% and * show significant at 10%. P-values are in parentheses The P-value of Hansen-i test suggests the validity of instruments.

Because money placed aside for future usage will be worth less, this discourages people from saving. Savings are necessary to increase the quantity of money in the financial market. (Barro & Martin, 2004).

Investment (GFCF) has a positive and significant effect on economic growth. It may boost the aggregate output of the economy and hence increase the financial and physical resources. Additionally, the investment is regarded as an engine of economic growth (Bataka, 2019; Nguyen et al., 2018; Villaverde & Maza, 2011).

Table 3: Impact of De Jure aspect of Globalization on Economic Growth through SGMM

Variables	(1)	(2)	(3)	(4)
	Overall	Economic	Social	Political
	Globalizatio	Globalization	Globalization	Globalization
	n			
Initial	-1.872**	-9.474***	-4.661***	-1.540**
	(0.022)	(0.003)	(0.000)	(0.012)
GLOB	0.039**	0.059**	-0.069**	0.010***
	(0.040)	(0.028)	(0.023)	(0.005)
INF	-0.042**	-0.031***	-0.053	-0.038**
	(0.014)	(0.010)	(0.107)	(0.013)
GFCF	0.030**	0.014**	0.068***	0.0171**
	(0.047)	(0.027)	(0.001)	(0.028)
GGFCE	-0.022**	-0.088**	-0.059***	-0.095***
	(0.022)	(0.031)	(0.000)	(0.006)
FR	-0.018	-0.014	-0.012***	-0.023
	(0.323)	(0.146)	(0.001)	(0.544)
LE	-0.023	-0.012	0.056	0.030
	(0.957)	(0.600)	(0.601)	(0.611)
Constant	0.340	118.181	66.576	7.071
	(0.988)	(0.367)	(0.145)	(0.250)
AR(2)	-1.49	-1.58	-1.60	-1.34
P-value	(0.137)	(0.115)	(0.109)	(0.179)
Hansen	37.53	6.82	0.09	38.77
P-value	(0.311)	(0.448)	(0.955)	(0.225)
OBS	350	263	309	309
Countries	46	46	46	46

Note: ***show significance at 1%, **show significant at 5% and * show significant at 10%. P-values are in parentheses The P-value of Hansen-j test suggests the validity of instruments.

However, govt consumption (GGFCE) has inconclusive results in the literature. However, the results of this study support the inverse relation between consumption and growth (Barro & Martin, 2004). GGFCE have a negative impact on growth due to reduction of savings in the economy and also due to increase the rate of interest, which reduces the funds available for investment (Viren, 2022). Both fertility rate and life expectancy are insignificant in our models. These results are also in line with the (Dreher, 2006).

The results of de facto aspect of globalization are presented in Table 2. The column 1 of Table 2 shows the impact of overall de facto globalization, 2nd, 3rd and 4th column show the impact of economic de facto, social de facto and political de facto on economic growth. The effect of globalization on economic growth is significant but the negative

impact is observed in the de facto aspect of economic and social dimensions of globalization. The coefficient of de facto overall globalization and the social dimension is significant. Moreover, the coefficient of economic dimension is negative and significant. However, the political de facto globalization has a large magnitude and significance relative to the reaming dimensions and overall globalization. Thus, our results confirm that the political de facto matters more in the case of developing countries. A higher political de facto globalization boosts economic growth. Inflation, government consumption, and fertility rate have a negative impact on economic growth which is in line with literature. Economic growth is influenced positively and significantly by investment and life expectancy.

The Table 3 shows the results of de jure aspect of globalization on economic growth. De jure globalization and its dimensions have a positive and significant impact on growth except social globalization. Thus, the magnitude of economic globalization among all dimensions is higher. However, political de jure is highly significant to enhance economic growth. It depicts that political stability and appropriate policies increase the economic growth in developing countries. The control variables in de jure analysis are significant and in line with the literature.

5. Conclusion

This study examines how globalization and its dimensions affect the economic growth in the selected developing countries by differentiating between the globalization's de jure and de facto aspects. The results of our analysis are in line with the literature which shows that globalization promotes economic growth. Economic and political dimensions have a positive and significant impact on economic growth, but social dimension has a negative impact on economic growth.

In contrast to the literature, we distinguished both globalization's aspects for developing countries. The analysis of de facto aspect reveals that globalization and its political dimension have a positive impact on growth. Whereas the economic and social dimensions of globalization hinder economic growth. In de facto terms, the positive results are more pronounced in globalization and political globalization. Its indicates that as actual international flows increase in economic and social globalization, they have a restraining effect on growth. The de jure aspect of globalization consisting of

policies and conditions reveals that growth is positively and significantly impacted by globalization, with the exception of de jure social globalization. The results of de jure measure are more pronounced in overall globalization, economic as well as political globalization. Countries that are politically connected have fewer institutional barriers to trade in products, services, and financial flows, and on average build their economies rapidly.

The influence of de facto social globalization is that citizens need to exchange information and knowledge to promote economic growth, which is consistent with the theory of informational knowledge spill over. Infrastructure and institutions that could theoretically be used for exchange of knowledge but are not actually used for it, have no effect on economic growth. De facto globalization frequently follows the de jure globalization and both are likely to have an impact on economic growth.

This study supports the view that in developing countries globalization creates a conducive environment for growth. Developing countries need to improve their participation in international trade and FDI. Political globalization improves through participation in the political decision-making process in the context of the international arena. This study also reveals the rigidity of the institutions and policies in developing countries that govern globalization. The orientation of the economic policies of emerging countries towards globalization, particularly in terms of political and social globalization, must be reassessed to promote growth. Policymakers should increase the significance of globalization's tools, including trade, technologies, and global networking. Specifically, policymakers must put supportive measures in place to mitigate the detrimental impact of social globalization on economic growth. To promote the free flow of knowledge exchange and communication, policymakers should develop and implement beneficial policies. This would increase economic growth by lowering transaction costs and knowledge asymmetry. Moreover, for de facto globalization actions to mirror de jure globalization efforts, these countries need to closely monitor the implementation of globalization policies.

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Appendix

TableA1: Summary Statistics and Correlation Matrix

Variables	Growth	Initial	GLOB	Inf	GFCF	GGFCE	FR	LE
Panel A								
N	354	353	358	358	358	358	357	357
Mean	3.22	10.544	3.852	-1.087	-1.781	-1.76	1.245	4.138
Std Dev	4.075	2.292	0.264	0.363	0.494	0.525	0.487	0.164
Min	-18.272	5.589	2.878	-2.131	-3.939	-4.929	0.127	3.629
Max	28.969	16.689	4.399	-0.062	-0.332	-0.593	2.029	4.379
Panel B								
Growth	1							
Initial	-0.014	1						
GLOB	0.142***	0.453***	1					
Inf	-0.090*	-0.026	0.294***	1				
GFCF	0.086*	0.321***	0.262***	0.296***	1			
GGFCE	-0.145***	-0.249***	-0.046	0.017	-0.175***	1		
FR	-0.045	-0.350***	-0.720***	-0.162	-0.227***	-0.258***	1	
LE	0.078	0.318***	0.657***	0.175***	0.290***	0.200***	-0.856***	1

TableA2: Impact of Globalization on Economic Growth Through FEM

Variables	(1)	(2)	(3)	(4)
	Overall GLOB	Economic GLOB	Social GLOB	Political GLOB
Initial	-4.257***	-3.666***	-4.735***	-4.070***
GLOB	0.011***	0.078***	0.024***	0.017***
INF	-0.023**	-0.012	-0.037***	-0.065**
GFCF	0.029***	0.031***	0.036***	0.025***
GGFCE	0.014	0.016**	0.012	-0.020
FR	0.055	-0.026	0 .095	0 .077
LE	0.062	0.016***	0.015	0.026***
Constant	13.98	-46.704*	37.043 °	26.789**
R-Sqr	0.2454	0.2295	0.2558	0.2352
F-Stat	9.85***	8.98***	10.36***	9.27***
Hausman	43.93***	32.93***	45.39***	55.32***
Breusch pagan	317.72***	361.4***	336.31***	238.56***
OBS	265	246	264	264
Countries	46	46	46	46

Note: *** show the level of signifiance at 1%, ** show at 5%, *show at 10%.

TableA3: Impact of De Facto aspect of Globalization on Economic Growth by using FEM

Variables	(1)	(2)	(3)	(4)
	Overall GLOB	Economic GLOB	Social GLOB	Political GLOB
Initial	-3.741***	-3.386***	-5.676***	-6.661***
GLOB	0.089***	0.092***	0.072***	0.052*
INF	-0.062**	-0.040*	-0.015*	0.626
GFCF	0.026***	0.027***	0.014**	0.018***
GGFCE	-0.013	0.083	0.063	-0.057
FR	-0.071	-0.011***	-0.012***	-0.061***
LE	0.013**	0.015**	-0.003	0.013***
Constant	-36.962	36.942***	45.098***	25.540
R-Sqr	0.2247	0.1860	0.2495	0.3714
F-Stat	8.73***	9.70***	13.77***	21.19***
Hausman	31.28***	44.86***	84.73***	63.52***
Bresuch pagan	259.86***	339.14***	549.83***	235.88***
OBS	264	350	342	304
Countries	46	46	45	46

Note: *** show the level of signifiance at 1%, ** show at 5%,*show at 10%.

TableA4: Impact of De jure aspect of Globalization on Economic Growth by using FEM

Variables	(1)	(2)	(3)	(4)
	Overall GLOB	Economic	Social GLOB	Political GLOB
Initial	-3.741***	-3.650***	-4.781	-4.714***
GLOB	0.089***	0.010**	0.021***	0.019***
INF	-0.062**	-0.014	-0.074***	-0.080***
GFCF	0.026***	0.023***	0.026***	0.025***
GGFCE	-0.013	-0.044	-0.055	-0.027
FR	-0.071	-0.014	-0.044	0.076
LE	0.013**	0.0193***	-0.017	0 .026***
Constant	-36.962	-37.318	53.966***	29.419***
R-Sqr	0.2247	0.1998	0.2558	0.2811
F-Stat	8.73***	7.52***	12.57***	11.79***
Hausman	31.28***	27.56***	51.59***	92.32***
Bresuch pagan	259.86***	273.14***	248.49***	226.42***
OBS	264	264	309	264
Countries	46	46	46	46

Note: *** show the level of signifiance at 1%, ** show at 5%,*show at 10%.

TableA5: List of Counties

Series	Country	Region	Series	Country	Region	Series	Country	Region
1	Algeria	Middle East & North Africa	16	Equatorial Guinea	Sub-Saharan Africa	32	North Macedonia	Europe &Central Asia
2	Armenia	Europe &Central Asia	17	Fiji	East Asia & Pacific	33	Pakistan	South Asia
3	Belize	Latin America and the	18	Gabon	Sub-Saharan Africa	34	Papua New Guinea	East Asia & Pacific
4	Bolivia	Latin America and the	19	Gambia,	Sub-Saharan Africa	35	Paraguay	Latin America and the
5	Brazil	Latin America and the	20	Georgia	Europe &Central Asia	36	Philippines	East Asia & Pacific
6	Bulgaria	Europe &Central Asia	21	Ghana	Sub-Saharan Africa	37	Romania	Europe & Central Asia
7	Burundi	Sub-Saharan Africa	22	Grenada	Latin America and the	38	Russian Federation	Europe & Central Asia
8	Cameroon	Sub-Saharan Africa	23	Guyana	Latin America and the	39	Sierra Leone	Sub-Saharan Africa
9	Central African	Sub-Saharan Africa	24	Iran, Islamic Rep.	Middle East & North Africa	40	South Africa	Sub-Saharan Africa
10	China	East Asia & Pacific	25	Lesotho	Sub-Saharan Africa	41	St. Vincent and the Grenadines	Latin America and the
11	Colombia	Latin America and the	26	Malawi	Sub-Saharan Africa	42	Togo	Sub-Saharan Africa
12	Congo, Dem. Rep.	Sub-Saharan Africa	27	Malaysia	East Asia & Pacific	43	Tunisia	Middle East & North Africa
13	Costa Rica	Latin America and the	28	Mexico	Latin America and the	44	Uganda	Sub-Saharan Africa
14	Dominica	Latin America and the	29	Morocco	Middle East & North Africa	45	Ukraine	Europe &Central Asia
15	Dominican Republic	Latin America and the	30	Nicaragua	Latin America and the	46	Zambia	Sub-Saharan Africa
			31	Nigeria	Sub-Saharan Africa			

Note: The sample countries classification is based on world bank (2022).