CHAPTER FIVE

GLOBALIZATION AND ECONOMIC GROWTH AMONG MIDDLE-INCOME COUNTRIES IN AFRICA

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Abstract

This chapter assesses the influence of globalization on economic growth among middle-income countries in Africa from 1986 to 2022. The study used five upper-middle-income countries and 17 lower-middle-income countries in Africa. The study also captured all the dimensions of globalization. The chapter presents how all the dimensions of globalization have played a role in advancing the economic growth of middle-income countries in Africa. The study found that economic, trade and financial globalization positively impact economic growth in middleincome countries in the short run and for upper-middle-income countries. At the same time, short-term gains are evident in interpersonal, informational, and cultural dimensions of globalization, but challenges arise from social globalization. In the long run, positive influences persist in interpersonal, informational, and cultural aspects. At the same time, political globalization exhibits sustained negative impacts, and uppermiddle-income countries benefit more in the short term. In contrast, the long-term advantages of social globalization are emphasized for this African group. The study recommends that African governments prioritize comprehensive government expenditure strategies, adaptive trade policies, globalization management frameworks, and investment-friendly policies and that tailoring globalization strategies, fostering international collaboration, and developing long-term economic plans are crucial for sustainable economic growth in Africa.

Keywords: Africa, economic growth, globalization, middle-incomecountries

Introduction

Globalization can be seen as the easy availability of goods, connectivity amongst nations, and access to trade rights in any country. Kolb (2018)

defines it as the deepening interdependence of global economies, cultures, and populations through cross-border trade, technology exchange, and information flows. It manifests as the interconnectedness of nations, facilitated by technological advancements, communication, and transportation, shaping the modern world and impacting economies, societies, and individuals positively and negatively. The benefits of globalization include increased world trade, innovation, enhanced Foreign Direct Investment (FDI) inflows, technology transfers, economies of scale for large companies, and overall economic growth. In middle-income countries, globalization accelerates economic growth through expanded market access, FDI attraction, technology transfer, specialization, efficiency, and competitiveness. It fosters infrastructure development, cultural exchange, and a skilled workforce.

However, the impact of globalization on low-income countries varies, sometimes exacerbating income inequality and poverty (Ortiz-Ospina, 2017; Samimi & Jenatabadi, 2014). The relationship between globalization and economic growth is complex, depending on income levels (Hammudeh *et al.*, 2020; Samimi & Jenatabadi, 2014). The first wave of globalization in 1492 marked the beginning of a global trade network during European colonialism. While some argue that the Industrial Revolution was the breeding ground for globalization, massive protests erupted in 1999 during the Seattle World Trade Organization (WTO) summit (Rennen & Martens, 2003). However, during the 19th century, globalization entered a new stage propelled by advancements in technology and innovation. Nonetheless, the aftermath of World War II witnessed a rapid expansion and integration of global trade, facilitated by the emergence of new technologies, innovations, and liberalized trade. As a result, corporations were able to grow at an accelerated pace.

Globalization has positively impacted economic growth through various means, including economies of scale, increased knowledge exchange between countries, enhanced innovation opportunities through specialization, efficient allocation of domestic resources, technology diffusion, improved productivity, and increased capital. Its intensification fuels innovation, leading to heightened competition among nations. Companies adapt to technological advancements and innovations to survive in the highly competitive global market. According to Gorodnichenko *et al.* (2008), globalization facilitates easy supply access,

creating a business-friendly environment and spreading knowledge and technology across nations. Globalization has recently played a crucial role in enabling emerging countries like China and India to enhance their innovation capabilities and stimulate economic growth.

The advantages of globalization represent the foundation for economic growth in emerging countries, positioning them as the driving force of the twenty-first-century economy. Therefore, integration with the global economy has benefited emerging market economies, argued as a keyframing determinant of economic growth. The relaxation of trade barriers presents opportunities and challenges for domestic companies in developing countries, either stimulating economic growth through expertise transfer or hindering it by disadvantaging fledgling industries. Consequently, the benefits of globalization are unevenly distributed, sparking debates about its impact on economic growth, particularly in developing middle-income countries. This chapter explores the relationship between globalization and economic growth, emphasizing its increasing significance in the 21st century. Rarely does any economy operate in autarky, with the liberalization of economies exposing countries to global competition, influencing economic growth positively or negatively.

Literature Review

Globalization

Globalization is the progressive opening of a nation's economy to international trade, cross-border capital flows, and foreign direct investment. It encompasses three key aspects: economic, social, and political. However, measuring globalization is complex, as Kılıçarslan and Dumrul (2018) noted. The development of a global globalization index plays a significant role in quantifying its origins and impacts. Various indices exist, including synthetic indices such as KFP, KOF, CSRG, MGI, NGI, and G-Index, as well as individual indices like trade globalization (measuring openness and average tariff rates) and financial globalization (assessing IMF restrictions, Chinn Ito index, FDI, foreign assets, and liabilities). These indices serve as metrics for gauging globalization in scholarly literature.

Among these indices, the KOF Globalisation Index is widely accepted as the premier measure of globalization due to its comprehensive assessment of trade levels, different forms of foreign capital, trade flows, and associated restrictions. Furthermore, it offers more extensive coverage of globalization's economic, social, and political dimensions than other indices. The KOF Globalisation Index has been in use since its introduction in 2002 at the KOF Swiss Economic Institute, with subsequent updates by Dreher *et al.* (2008) and Gygli *et al.* (2018). It provides economic, social, and political globalization measurements for nearly every country since 1970. In this book chapter, globalization is understood to encompass three dimensions: economic globalization, social globalization, and political globalization.

Economic globalization encompasses interconnected economic activities, trade, and capital regulations globally. It involves tangible transactions, trade dynamics, and regulatory frameworks governing cross-border capital movements. Essential components include trade data, reflecting international exchange, and Foreign Direct Investment (FDI), contributing to cross-border business integration. Additionally, portfolio investment shapes global capital markets. Social globalization involves global connections, personal interactions, and cultural exchange. International telecommunications traffic, tourism levels, remittances, and global interpersonal correspondence signify cross-border communication and cultural diversity. Information flows, cultural proximity, and the presence of international brands highlight the interconnected fabric of personal, informational, and cultural exchanges, defining our interconnected world. Political globalization is gauged by factors like embassies, international organization membership, and treaties between states, reflecting the growth of the worldwide political system. It encompasses political integration, intergovernmental organizations, and democratization, raising concerns about state sovereignty and the future of the nation-state. While fostering interdependence and cooperation, political globalization may lead to increased resistance and opposition.

Economic growth

Economic growth can be described as the continual and sustained rise in a nation's real national income over an extended period or a consistent upward trajectory of net national product at constant prices. However, total national income may be increasing, and yet the people's standard of living may be falling. This can happen when the population outweighs the total national income. Hence, defining economic growth in terms of per capita income is preferred. Economic growth means the annual increase in real per capita income of a country over a long period. Economic growth rates are measured by an increase in overall Gross National Product (GNP) or Net National Product (NNP) and per capita income. In this study, economic growth is seen as the annual increase in real per capita income of a country over a long period.

Globalization and Economic Growth Nexus

For globalization and developing Nations, Kilic (2015) explored the impacts of economic, social, and political globalization on developing nations. The findings revealed a two-way relationship between political and social globalization and economic growth. Economic and political globalization positively affected economic growth, while social globalization had a negative impact. In terms of globalization and business environments, Masteikienea and Venckuvieneb (2015) focused on the impact of economic globalization on the business environments of Baltic countries, noting a positive effect that was gradually diminishing. Chang and Lee (2010) examined the correlation between economic growth and globalization on economic growth.

Assessing globalization across regions, Ying et al. (2014) analyzed the impact of globalization on the growth of ASEAN countries, demonstrating a positive effect of economic globalization but a negative impact of social globalization on economic growth. Suci et al. (2015) explored the impact of globalization on economic growth in ASEAN countries, highlighting the positive effects of economic and political globalization. Titalessy (2018) also discovered that economic and political globalization positively influenced economic growth in Asia-Pacific countries, while social globalization had a negative impact. Hasan (2019) indicated that economic and political globalization positively affects economic growth in South Asian countries. Considering studies on globalization and developed countries, Dreher (2003) found that globalization promotes growth in developed countries, with economic flows and restrictions as primary influencers. Ahmad (2019) identified a positive effect of economic globalization contingent upon each country's political landscape, with spillover effects across neighboring countries.

Examining globalization in Africa, Ibrahim (2013) reviewed the positive and negative impacts of globalization on African countries, emphasizing the need for capacity building. Lere (2014) argued that globalization is a form of neocolonialism in Africa, overshadowed by economic, political, social, religious, and cultural crises. Wenjing *et al.* (2012) found that Africa's integration into the global economy could have been much higher, lacking robust statistical techniques. For other countries, Wani and Mir (2021) investigated the dynamics of globalization and economic growth in India, revealing positive influences of imports and FDI on economic growth. Meraj (2013) also studied the influence of globalization and trade openness on the economic growth of Bangladesh, finding a positive impact. Heimberger (2022) conducted a meta-analysis examining the link between economic globalization and economic growth. The results underscored the variability of growth effects over time.

Studying the dimensional analysis of globalization, Kılıçarslan and Dumrul (2018) dissected the effects of economic, social, and political globalization on economic growth in Turkey, highlighting the significance of analyzing different dimensions of globalization. In conclusion, these empirical studies offer valuable insights into the complex relationship between globalization and economic growth. While findings contribute significantly, the call for further research, especially in regions like Africa, and careful consideration of methodological limitations remains imperative for a comprehensive understanding of the nuanced impacts of globalization on economic growth.

Methodology

The research utilized secondary data from the World Bank and The Swiss Institute of Technology in Zurich, spanning 1986 to 2022. The dataset encompasses various indicators, including GEXP (General government final consumption expenditure as a percentage of GDP), GFCF (Gross fixed capital formation as a percentage of GDP), FDI (Foreign direct investment, net inflows as a percentage of GDP), HCE (Households and NPISHs final consumption expenditure as a percentage of GDP), TRD (Trade as a percentage of GDP), GDPP (real Gross Domestic Product per capita growth as a percentage), and several globalization indices (KOFGI for overall Globalisation Index, KOFEcGI for Economic Globalisation Index, KOFFiGI for Financial Globalisation Index, KOFSoGI for Social Globalisation Index, KOFIpGI for Interpersonal Globalisation Index, KOFInGI for Informational Globalisation Index, KOFCuGI for Cultural Globalisation Index, and KOFPoGI for Political Globalisation Index). The study specifically focused on middle-income African nations, categorized as upper-middle-income (Botswana, Gabon, Libya, Mauritius, and Namibia) and lower-middle-income countries (Algeria, Benin, Cameroon, Comoros, Congo, Cote d'Ivoire, Egypt, Eswatini, Ghana, Guinea, Kenya, Mauritania, Morocco, Nigeria, Senegal, Tanzania, and Zimbabwe).

Theoretical Model and Model Specification Keynes' theory stated as follows:

Keynes' theory stated as follows: Y = C + I + G + (X - M)

Where Y is National Income, C is Consumption demand by the households, I is Investment, G is Government expenditure, and (X - M) is Net exports (the trade balance). Globalization also facilitates international trade by breaking down barriers and fostering economic exchange between countries. Thus, the inclusion in economic growth models acknowledges the potential for expanded markets, increased export opportunities, and the inflow of foreign capital, all of which can contribute positively to economic growth. Thus, the model can be restated as:

(1)

 $GDPP_{ii} = f(HCE_{ii}, GFCF_{ii}, FDI_{ii}, GEXP_{ii}, TRD_{ii}, KOFGI_{ii})$ (2)

Where GDPP is real gross domestic product per capita growth as a percentage, HCE is households and NPISHs final consumption expenditure as a percentage of GDP, GFCF is gross fixed capital formation as a percentage of GDP), FDI is foreign direct investment, net inflows as a percentage of GDP), GEXP is general government final consumption expenditure as a percentage of GDP), TRD is trade as a percentage of GDP, and KOFGI is overall Globalisation Index. While globalization is primarily an economic process, it encompasses more than just the flow of goods and capital. It also includes other dimensions of globalization, such as political and social (Goryakin *et al.*, 2015). Therefore, considering the multidimensional nature of globalization, the model can be stated as:

 $GDPP_{ii} = f(HCE_{ii}, GFCF_{ii}, FDI_{ii}, GEXP_{ii}, TRD_{ii}, KOFEcGI_{ii}, KOFEcGI_{ii}, KOFTrGI_{ii}, KOFFiGI_{ii}, KOFSoGI_{ii}, KOFIpGI_{ii}, KOFInGI_{ii}, KOFCuGI_{ii}, KOFPoGI_{ii})$ (3)

Where KOFEcGI is Economic Globalisation Index, KOFFiGI is Financial Globalisation Index, KOFSoGI is Social Globalisation Index, KOFIpGI is Interpersonal Globalisation Index, KOFInGI is Informational Globalisation Index, KOFCuGI is Cultural Globalisation Index, and KOFPoGI is Political Globalisation Index. Following a typical dynamic (including a lag of the dependent variable as a regressor in a model makes it a dynamic model) panel data model, equation (3) and (4) can be specified in stochastic form as:

 $GDPP_{ii} = \beta_0 + \beta_1 GDPP_{ii-1} + \beta_2 HCE_{ii} + \beta_3 GFCF_{ii} + \beta_4 FDI_{ii} + \beta_5 GEXP_{ii} + \beta_6 TRD_{ii} + \beta_7 KOFGI_{ii} + \varepsilon_{ii} (4)$ $GDPP_{ii} = \beta_0 + \beta_1 GDPP_{ii-1} + \beta_2 HCE_{ii} + \beta_3 GFCF_{ii} + \beta_4 FDI_{ii} + \beta_5 GEXP_{ii} + \beta_6 TRD_{ii} + \beta_6 KOFEcGI_{ii} + \beta_7 KOFTrGI_{ii} + \beta_8 KOFFiGI_{ii} + \beta_9 KOFSoGI_{ii} + \beta_{10} KOFIpGI_{ii} + \beta_{11} KOFInGI_{ii} + \beta_{12} KFCuGI_{ii} + \beta_{13} KOFPoGI_{ii} + \varepsilon_{ii}$ (5)

where

 $\beta_1 - \beta_7$ for equation (4) and $\beta_1 - \beta_{13}$ are parameters to be estimated, and \mathcal{E}_{it} =mutually independent idiosyncratic error.

Method of Data Analysis

Unit roots in panel data were assessed using the five-panel unit root tests. The impact of cross-sectional dependency on first- and second-generation unit root tests was considered. Causality and cointegration relationships were examined. The study employed dynamic panel data approaches such as mean group (MG), pooled mean group (PMG), and dynamic fixed effects (DFE) to analyze the questions. The dynamic panel autoregressive models were employed.

Results and Discussion

Panel Unit Root Test Results

Panel unit root tests (LLC, IPS, ADF-Fisher) were employed to assess variable stationarity (Table 1a-f). Results determine whether variables exhibit stationarity or non-stationarity.

Tests	GDPP	GDPP	HCE	d.HCE	TRD	d.TRD	GFCF	d.GFCF
Harris-Tzavalis	-0.1685***	-0.5760***	0.7946***	-0.2363***	0.8225***	-0.0550***	0.6891***	-0.2598***
Breitung (2000)	-11.9856***	-15.9061***	-1.0942	-13.1509***	-3.9857***	-13.3729***	-1.0104	-13.5347***
Levin-Lin-chu	-8.7847***	-20.9114***	-0.4234	-13.7482***	-2.4542***	-14.0110***	-0.4899	14.5950***
Im-Pesaran-shin	-13.3451***	-20.6357***	-1.6578*	-17.5440***	-1.8020**	-15.6838***	-2.6715***	-16.8170***
Fisher-type	24.6882***	86.8461***	-0.4047	41.8488***	2.2509**	44.2680***	4.3189***	42.8726***
Pesaran (2007)	-8.946***	-19.750***	2.411	-12.656***	0.036	-13.541***	0.150	-14.105***
Hadri (2000)	-0.4687	-4.8259	51.1512***	-2.6885	40.2490***	-1.6762	37.1023***	-2.5668

Table 1a: Panel Unit Root Tests (All Middle Income Countries)

Source: Extracts from STATA 15 Output. Note: The asterisk (*** ** and *) denotes rejection of the null hypothesis that the series has a unit root at 1%, 5%, and 10 percent levels of significance

Tests	FDI	d.FDI	GEXP	d.GEXP	KOFGI	d. KOFGI
Harris-Tzavalis	0.4225***	-0.3040***	0.7273***	-0.1990***	0.9653	0.0425***
Breitung (2000)	-7.1184***	-16.5591***	-2.2125**	-14.8670***	5.9763	-14.1061***
Levin-Lin-chu	-3.9756***	-16.5307***	-3.7130***	-13.5702***	-4.2979***	-12.9149***
Im-Pesaran-shin	-7.6535***	-19.1594***	-2.9789***	-15.4545***	2.0416	-15.2467***
Fisher-type	7.9729***	58.8309***	4.9481***	37.6318***	-1.1401	33.5823***
Pesaran (2007)	-5.500***	-17.453***	-1.810***	-12.642***	-4.895***	-14.078***
Hadri (2000)	19.2275***	-4.4801	32.5064***	-3.3655	101.4160***	0.6434

Table 1b: Panel Unit Root Tests (All Middle-Income Countries)

Source: Extracts from STATA 15 Output. Note: The asterisk (*** ** and *) denotes rejection of the null hypothesis that the series has a unit root at 1%, 5%, and 10 percent levels of significance

Table	1c: Pan	el Unit I	Root T	ests (U	pper M	iddle Ir	ncome	Countries)
Tests	GDPP	d. GDPP	HCE	d.HCE	TRD	d.TRD	GFCF	d.GFCF
Harris-Tzavalis	-0.3467***	-0.6046***	0.7436***	-0.3119***	0.7796***	0.0884***	0.6169***	-0.2411***
Breitung (2000)	-7.2995***	-7.5235***	-1.6376*	-6.2077***	-2.9222***	-5.9933***	-1.9955***	-4.5256***
Levin-Lin-chu	-8.1181***	-11.3960***	-0.8583	-7.8114***	-2.8504***	-5.3673***	-0.975	-5.9072***
Im-Pesaran-shin	-7.6713***	-9.9225***	-1.0375	-8.5353***	-1.6661**	-6.8549***	-3.3006***	-8.6833***
Fisher-type	25.1694***	51.7622***	-0.5168	25.7298***	3.2391***	14.2023***	1.9681**	19.7321***
Pesaran (2007)	-7.742***	-10.410***	1.483	-8.649***	-1.449**	-5.557***	-1.457**	-6.847***
Hadri (2000)	-1.6365	-2.3362	22.3133***	-1.6773	9.6953***	-1.2689	12.4082***	-1.0228

Source: Extracts from STATA 15 Output. Note: The asterisk (*** ** and *) denotes rejection of the null hypothesis that the series has a unit root at 1%, 5%, and 10 percent levels of significance

Table 1d: Panel Unit Root Tests (Upper Middle Income Countries)

Tests	FDI	d.FDI	GEXP	d.GEXP	KOFGI	d. KOFGI
Harris-Tzavalis	0.5992***	-0.3198***	0.6649***	-0.3288***	0.9668	0.0666***
Breitung (2000)	-4.2714***	-10.0268***	-1.0068	-6.8630***	2.4324	-7.7370***
Levin-Lin-chu	-2.0586**	-7.9182***	-2.9345***	-8.9775***	-1.5980**	-5.2417***
Im-Pesaran-shin	-3.4109***	-8.9834***	-3.1929***	-8.1128***	0.7269	-3.9607***
Fisher-type	2.7337***	26.3421***	5.6520***	27.0710***	-0.76	12.1721***
Pesaran (2007)	-3.029***	-8.822***	-4.512***	-8.540***	-2.748***	-5.965***
Hadri (2000)	14.8509***	-1.9629	12.3176***	-1.7475	48.3691***	0.201

Source: Extracts from STATA 15 Output. Note: The asterisk (*** ** and *) denotes rejection of the null hypothesis that the series has a unit root at 1%, 5%, and 10 percent levels of significance

Table 1e: Panel Unit Root Tests (Lower Middle Income Countries)

Tests	GDPP	a. GDPP	HCE	d.HCE	IKD	a.1KD	GFCF	a.GrCr
Harris-Tzavalis	0.2449***	-0.4581***	0.8091***	-0.2032***	0.8330***	-0.0969***	0.6977***	-0.2622***
Breitung (2000)	-9.9539***	-14.0146***	-0.5383	-11.5963***	-3.0747***	-12.0084***	-0.2772	- 14.0665***
Levin-Lin-chu	-6.0656***	-17.6261***	-0.0493	-11.4666***	-1.3132	-13.0744***	-0.1829	- 13.3823***
Im-Pesaran-shin	-11.0209***	-18.0937***	-1.3232*	-15.3290***	-1.1464	-14.1242***	-1.2491	- 14 4218***
Fisher-type	14.4351***	70.7235***	-0.1801	33.6529***	0.8039	42.6567***	3.8458***	38.0703***
Pesaran (2007)	-6.171***	-16.733***	2.283	-10.232***	0.87	-11.180***	0.92	-12.203***
Hadri (2000)	5.6081***	-3.9679	46.0755***	-2.0453	39.4772***	-1.2171	33.7656***	-2.3038

Source: Extracts from STATA 15 Output. Note: The asterisk (*** ** and *) denotes rejection of the null hypothesis that the series has a unit root at 1%, 5%, and 10 percent levels of significance

Table 1f: Panel Unit Root Tests (Lower Middle Income Countries)

Tests	FDI	d.FDI	GEXP	d.GEXP	KOFGI	d. KOFGI
Harris-Tzavalis	0.3971***	-0.3026***	0.7904***	0.0196***	0.9648	0.0328***
Breitung (2000)	-5.8574***	-13.7898***	-1.9712	-13.1898***	5.4679	-11.9795***
Levin-Lin-chu	-3.4113***	145119***	-2.9368***	-10.8990***	-4.0232***	-11.8598***
Im-Pesaran-shin	-6.8568***	-16.9237***	-1.6571*	-13.1811***	1.9283	-13.5216***
Fisher-type	7.5873***	52.6396***	2.5637***	28.1283***	-0.8848	31.6018***
Pesaran (2007)	-4.321***	-15.293***	-0.823	-9.751***	-3.806***	-12.915***
Hadri (2000)	15.3904***	-3.9685	34.4527***	-2.5176	89.1345***	0.6449

Source: Extracts from STATA 15 Output. Note: The asterisk (*** ** and *) denotes rejection of the null hypothesis that the series has a unit root at 1%, 5%, and 10 percent levels of significance

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Statistics/Probabilities	Statistic	p-value	Statistic	p-value	Statistic	p-value	
Models	All		Upper		Lower		
Kao (1999) Test of Cointegration							
Modified Dickey-Fuller t	-37.8750***	0.0000	-16.3828***	0.0000	-21.4887***	0.0233	
Dickey-Fuller t	-28.2303***	0.0000	-14.9660***	0.0000	-14.9948***	0.0186	
Augmented Dickey-Fuller t	-16.1154***	0.0000	-9.0423***	0.0000	-8.1588***	0.0066	
Unadjusted modified Dickey- Fuller	-54.0464***	0.0000	-28.8655***	0.0000	-30.8363***	0.4637	
Unadjusted Dickey-Fuller t Predoni (1999, 2004) Test of No Coir	-29.3638*** ntegration	0.0000	-16.3219***	0.0000	-16.0208***	0.4474	
Modified Phillips-Perron t	-3.4451***	0.0003	-2.7046***	0.0034	-0.7629***	0.2228	
Phillips-Perron t	-18.2495***	0.0000	-9.8570***	0.0000	-12.3773***	0.0000	
Augmented Dickey-Fuller t	-18.2904 ***	0.0000	-10.8019***	0.0000	-11.7913**	0.0000	
Westerlund (2005) Test of No Cointe	gration [Alternative	e hypothesis:	cointegration in sor	me panels]			
Variance ratio	-3.1108	0.0009	-1.5049	0.0662	-0.0547	0.4782	
Westerlund (2005) Test of No Cointe	gration [Alternative	e hypothesis: A	All panels are cointe	egrated]			
Variance ratio	-3.1108	0.0009	-1.5049	0.0662	-0.0547	0.4782	

Table 2: Panel Cointegration Results

Source: Extracts from STATA Output.

Results from Table 1a-f reveal that, initially, some variables were stationary at the level. However, after the first differences, it rendered all variables stationary. Thus, the variables achieved stationarity post-first differencing, which is crucial for reliable econometric modeling and insightful data analysis.

Results of Cointegration Analysis

Table 2 presents the panel cointegration outcomes for the models pertaining to all middle-income countries in Africa, upper-middle-income countries in Africa. and lower-middle-income countries in Africa. It was observed that cointegration exists among the variables across all models (encompassing all middle-income countries in Africa, upper-middleincome countries in Africa, and lower-middle-income countries in Africa). Panel cointegration suggests a long-run relationship among the variables in each model. Employing various tests such as Kao, Predoni, and Westerlund to validate panel cointegration enhances the robustness and credibility of the results.

Results of Panel Granger Non-Causality Test

The results of the Juodis et al. (2021) Granger non-causality test are presented in Table 3.

Granger Non-Causality Test	HPJ Wald	р-
	test	Value_HPJ
Null Hypothesis (All Countries)		
H0: GDPP does not Granger-cause KOFGI.	1.949269	0.1627
H0: KOFGI does not Granger-cause GDPP	43.159926***	0.0000
Null Hypothesis (Upper Middle Income Countries)		
GDPP does not Granger-cause KOFGI	6.7082942***	0.0096
KOFGI does not Granger-cause GDPP.	44.721729***	0.0000
Null Hypothesis (Lower Middle Income Countries)		
H0: GDPP does not Granger-cause KOFGI	0.102716	0.7486
H0: KOFGI does not Granger-cause GDPP.	26.283208***	0.0000
*** n <0.01 ** n <0	$\frac{20.205200}{05 * n < 0.1}$	0.0000

 $T_{-1} = 2$, $T_{-1} = 2$, 1:4- Tast Dass14

*** p<0.01, ** p<0.05, * p<0.1

From the results in Table 3, a unidirectional causal relationship exists between globalization and economic growth among African middleincome countries. Specifically, the study found a unidirectional causal relationship between globalization and economic growth for lowermiddle-income and middle-income countries in Africa. It implies that changes or fluctuations in globalization factors (such as international trade, foreign direct investment, or economic integration) significantly impact these countries' economic growth. In other words, as globalization increases or decreases, it influences the economic growth of the mentioned countries.

In contrast to the unidirectional relationship observed for lower-middle and all middle-income countries, the study revealed a bidirectional relationship between globalization and economic growth among uppermiddle-income African countries. A bidirectional relationship means that there is a mutual cause-and-effect connection. In this case, changes in globalization not only influence economic growth in these upper-middleincome countries, but economic growth also significantly impacts globalization for these countries. It suggests a more complex interaction between globalization and economic growth in the upper-middle-income African countries than the other income groups. The relationship is not just one-way; it goes both ways.

The findings imply that the influence of globalization on economic growth is not uniform across different income groups in African countries. The nature and direction of the relationship vary based on the income level of the countries. For lower-middle and middle-income countries, the impact seems to be more unidirectional, indicating that changes in globalization drive economic growth. On the other hand, there is a reciprocal influence for upper-middle-income countries, with globalization and economic growth affecting each other.

Impact of Globalization on Economic Growth among Upper-MiddleIncome Countries in Africa

The study examined the impact of globalization on economic growth among upper-middle-income countries in Africa. The mean group (mg) results were selected based on Hausman test results.

Variables	Botswana	Gabon	Libya	Mauritius	Namibia
ec	-1.034***	-1.388***	-1.490***	-1.258***	-1.469***
	(0.296)	(0.266)	(0.253)	(0.388)	(0.316)
D.IGDPP	0.0433	0.114	0.126	0.623***	0.448**
	(0.176)	(0.139)	(0.141)	(0.221)	(0.228)
D.HCE	-0.942**	0.23	0.353	-0.459	0.0539
	(0.372)	(0.255)	(0.564)	(0.304)	(0.262)
D.GFCF	-0.439	0.0916	-0.593	0.258	-0.158
	(0.429)	(0.228)	(1.125)	(0.225)	(0.333)
D.FDI	0.441	-0.28	3.146	0.133	-0.293
	(0.358)	(0.227)	(3.196)	(0.379)	(0.411)
D.GEXP	0.0312	-0.195	0.969**	0.72	0.229
	(0.385)	(0.468)	(0.445)	(1.188)	(0.536)
D.TRD	0.276***	0.0988	0.534*	0.137	-0.112
	(0.098)	(0.126)	(0.283)	(0.107)	(0.135)
D.KOFGI	-1.061*	0.573	1.12	-0.0242	0.155
	(0.623)	(0.470)	(2.402)	(0.414)	(0.489)
HCE	-0.666**	-0.164*	-0.67	0.00876	-0.0585
	(0.297)	(0.097)	(0.445)	(0.114)	(0.160)
GFCF	0.557	0.384***	0.789	-0.164	0.335
	(0.459)	(0.127)	(1.080)	(0.110)	(0.206)
FDI	-0.283	0.0489	-2.081	0.1	0.44
	(0.487)	(0.219)	(2.892)	(0.267)	(0.295)
GEXP	-0.192	0.966***	0.111	2.095***	-0.566
	(0.309)	(0.337)	(0.253)	(0.401)	(0.353)
TRD	0.116	-0.255***	-0.0756	-0.0399	-0.0853
	(0.076)	(0.080)	(0.140)	(0.039)	(0.070)
KOFGI	0.301	-1.064***	-0.78	-0.094	-0.0214
	(0.241)	(0.305)	(0.731)	(0.071)	(0.121)
Constant	-6.475	116.2***	85.26	105.0***	27.65*
	(14.470)	(39.280)	(62.360)	(32.350)	(15.890)
Observations	175	175	175	175	175

 Table 4: Impact of Globalization on Economic Growth among

 Upper-Middle-Income Countries in Africa

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

The mean group estimates in Table 4 highlight a significant positive correlation between lagged and current economic growth in Mauritius and Namibia. This implies that past economic growth influences the current economic trajectory in these countries. For Botswana, the study reveals a negative influence of household consumption expenditure on economic growth in both short and long runs, suggesting that increased consumption hampers investment and savings crucial for long-term growth.

Government expenditure significantly impacts economic growth in Libya (short run), Gabon, and Mauritius (long run), signifying its role in stimulating economic activity and fostering long-term development.

Trade exerts a positive impact on Botswana's short-term growth but a negative effect on Gabon's long-term growth. The study unveils a nuanced impact of globalization on Botswana, indicating a short-term negative influence that diminishes over the long run. Conversely, Gabon experiences a long-term negative impact, suggesting challenges in leveraging global integration for sustained development. The constant term positively influences economic growth in Gabon, Mauritius, and Namibia, suggesting underlying factors contributing consistently to positive growth in these countries.

Impact of Globalization on Economic Growth among Lower-Middle-Income Countries in Africa

The study examines globalization's long-run and short-run impact on economic growth among lower-middle-income countries in Africa. The long-run estimates based on the results of the pooled mean group (PMG) estimator are presented in Table 5 (long-run estimates) and Table 6a-b (short-run estimates).

Table 5: Long-Run Impact of Globalization on Economic Growth among Lower-Income Countries in Africa

Variables	PMG
HCE	-0.0285
	(0.020)
GFCF	0.0692***
	(0.026)
FDI	0.254***
	(0.053)
GEXP	-0.0474
	(0.040)
TRD	0.000645
	(0.009)
KOFGI	0.00539
	(0.020)

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

The result from Table 5 reveals a positive and statistically significant influence of gross fixed capital formation on economic growth among lower middle-income countries in Africa in the long run at the 1% significance level. This implies that an increase in gross fixed capital formation, which represents the investment in physical assets like machinery and infrastructure, is associated with a corresponding increase in economic growth within this group of countries in the long run. This aligns with economic theory, as increased capital investment is expected to contribute to productivity gains, technological advancement, and overall economic expansion over the long term.

The study also found a positive and statistically significant estimated influence (coefficient of 0.254) of foreign direct investment (FDI) on economic growth among lower middle-income countries in Africa in the long run at the 1% significance level. This finding suggests that an increase in foreign direct investment positively impacts economic growth in lower-middle-income countries in Africa over an extended period. The positive influence aligns with economic theory, as foreign direct investment brings in capital, technology, and managerial expertise, which can contribute to increased productivity, employment, and overall economic growth. Therefore, the study suggests that, on average, a unit increase in foreign direct investment is associated with a 0.254-unit economic growth in lower-middle-income countries in Africa.

 Table 6a: Short-Run Impact of Globalization on Economic Growth among Lower Middle-Income Countries in Africa

Variables	Algeria	Benin	Cameroon	Comoros	Congo,	Cote	Egypt	Eswatini	Ghana	Guinea	Kenya
					Rep.	d'Ivoire					
ec	-0.367*	-	-0.330***	-	-0.168	-	-	-0.942***	-0.524***	-	-0.803***
		1.049***		0.984***		0.520***	0.452***			0.774***	
	(0.201)	(0.239)	(0.104)	(0.293)	(0.190)	(0.158)	(0.166)	(0.162)	(0.189)	(0.166)	(0.215)
D.IGDPP	-0.178	-0.0373	-0.0452	-0.147	-0.257*	-0.328**	-0.154	-0.0969	-0.0141	0.0356	0.0687
	(0.167)	(0.148)	(0.124)	(0.174)	(0.156)	(0.146)	(0.125)	(0.128)	(0.163)	(0.132)	(0.185)
D.HCE	0.208	-0.0699	0.289	0.104	-0.0687	0.0721	-0.211**	-0.0219	-0.0689	-0.0848*	-0.00666
	(0.179)	(0.168)	(0.255)	(0.330)	(0.132)	(0.284)	(0.092)	(0.107)	(0.087)	(0.050)	(0.142)
D.GFCF	-0.00152	0.154	0.966***	-0.134	-0.127	1.180***	0.157*	0.882***	-0.108	-0.117	0.551**
	(0.183)	(0.166)	(0.325)	(0.656)	(0.084)	(0.273)	(0.091)	(0.243)	(0.095)	(0.072)	(0.239)
D.FDI	-0.3	-0.585	-0.325	-0.69	-0.0279	1.958***	0.283*	-0.0667	0.256	0.116	0.439
	(0.723)	(0.422)	(0.286)	(1.052)	(0.063)	(0.756)	(0.155)	(0.118)	(0.227)	(0.106)	(0.411)
D.GEXP	-0.38	0.162	0.925*	0.0765	-0.216	1.078*		0.676***	0.447***	-0.218	-0.0178
							0.825***				
	(0.298)	(0.295)	(0.515)	(1.596)	(0.229)	(0.651)	(0.288)	(0.220)	(0.164)	(0.182)	(0.409)
D.TRD	0.222	0.0775	0.0934	0.312	-0.0543	0.0998	-0.0277	-0.0688	0.0538*	0.0747**	-0.11
	(0.140)	(0.070)	(0.062)	(0.266)	(0.060)	(0.092)	(0.032)	(0.043)	(0.030)	(0.037)	(0.079)
D.KOFGI	-0.168	0.163	0.104	-0.867	0.502	-0.27	-0.295**	0.766	-0.971***	-0.782**	-0.226
	(0.260)	(0.265)	(0.352)	(0.647)	(0.491)	(0.510)	(0.148)	(0.496)	(0.297)	(0.311)	(0.411)
Constant	0.149	2.366	0.298	2.088	-0.736	0.53	1.363	2.662	2.113	2.227	1.666
	(0.763)	(2.341)	(0.738)	(2.251)	(1.072)	(1.135)	(1.109)	(2.239)	(1.357)	(1.687)	(1.806)

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Variables	Mauritania	Morocco	Nigeria	Senegal	Tanzania	Zimbabwe
ec	-0.889***	-1.659***	-0.296**	-0.647***	-0.413**	-0.730***
	(0.125)	(0.266)	(0.149)	(0.174)	(0.188)	(0.151)
D.1GDPP	0.326***	0.218	-0.358**	-0.207	-0.115	0.332**
	(0.090)	(0.154)	(0.149)	(0.127)	(0.182)	(0.148)
D.HCE	-0.261***	0.267	0.0743	-0.724***	0.0758	-0.307*
	(0.071)	(0.229)	(0.079)	(0.176)	(0.153)	(0.164)
D.GFCF	0.292***	0.289	0.0319	0.00778	0.0768	-0.0498
	(0.043)	(0.361)	(0.184)	(0.198)	(0.112)	(0.270)
D.FDI	0.344***	0.277	0.920**	0.801***	-0.062	0.581
	(0.058)	(0.291)	(0.422)	(0.288)	(0.224)	(0.803)
D.GEXP	-0.041	2.797***	0.312	-0.619	-0.0437	-0.0709
	(0.139)	(0.655)	(0.430)	(0.436)	(0.250)	(0.242)
D.TRD	-0.0338	-0.125	-0.0196	-0.0286	-0.00876	-0.325***
	(0.043)	(0.091)	(0.066)	(0.069)	(0.070)	(0.115)
D.KOFGI	0.758**	0.0342	0.0667	0.101	0.0866	1.185
	(0.334)	(0.289)	(0.397)	(0.303)	(0.350)	(1.023)
Constant	-1.884	3.611	0.231	0.915	0.698	0.514
	(2.768)	(3.657)	(0.784)	(1.504)	(0.976)	(1.999)

 Table 6b: Short-run impact of Globalization on Economic Growth among Lower Middle-Income Countries in Africa

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

The results in Table 6a-b show the impact of the lagged dependent variable on current economic growth across diverse African countries. While Mauritania and Zambia exhibit a positive and statistically significant relationship between past economic growth and present growth, Congo DR, Cote d'Ivoire, and Nigeria display a negative influence. These variations highlight the necessity of accounting for country-specific factors when interpreting the effects of lagged economic growth. Moreover, the study unveils a negative relationship between household consumption expenditure and economic growth in the short-run in lowermiddle-income African countries like Egypt, Guinea, Mauritania, Senegal, and Zimbabwe. Essentially, heightened individual and household spending in these nations detrimentally affects economic growth. This finding suggests short-term trade-offs, where increased consumption diverts resources from savings or investment, hindering long-term economic development. The findings emphasize the importance of balancing resource allocation between consumption and investment for sustained economic development.

In addition, the study reveals a positive relationship between gross fixed capital formation and economic growth in the short run for lower-middleincome African countries such as Cameroon, Cote d'Ivoire, Egypt, Eswatini, Kenya, and Mauritania. This implies that increased investments in physical assets, like infrastructure and machinery, correspond to enhanced overall economic growth. The positive relationship signifies advancements in sectors such as infrastructure, manufacturing, or technology, underscoring the pivotal role of capital investments in driving short-term economic growth. Furthermore, the study identifies a positive impact of foreign direct investment (FDI) on short-term economic growth in lower-middle-income African countries, including Cote d'Ivoire, Egypt, Mauritania, Nigeria, and Senegal. This suggests that increased foreign investments are associated with improved economic performance in these nations. The positive relationship shows the benefits of external capital inflows, technology transfer, and expertise brought in by foreign investors for short-term economic growth.

The study also highlights a positive relationship between government expenditure and economic growth in the short-run in lower-middleincome African countries like Cameroon, Cote d'Ivoire, Egypt, Eswatini, Ghana, and Morocco. Increased government spending in vital sectors, including infrastructure, education, and healthcare, significantly contributes to short-term economic growth in these nations. Moreover, a positive relationship between trade balance and economic growth in the short-run is observed in Ghana and Guinea, indicating that a favorable trade balance positively influences economic growth in these nations. However, Zimbabwe experiences a negative impact due to its heavy reliance on exporting minerals and agricultural products, making it susceptible to global commodity price fluctuations and exchange rate volatility. The study also reveals that globalization negatively affects economic growth in the short-run for Egypt, Ghana, and Guinea, highlighting the challenges of increased global integration for these nations. In contrast, Mauritania experiences a positive influence, suggesting that the benefits of expanded global integration contribute to positive economic outcomes in the short term.

Impact of Globalization on Economic Growth among Middle-Income Countries in Africa (All the Countries)

The study also examined the long-run and short-run impact of globalization on economic growth among middle-income countries in Africa based on the Hausman test results. The long-run results of the impact of globalization on economic growth among middle-income countries in Africa are presented in Table 7 (long-run estimates) and Table 8a-b (short-run estimates).

VARIADEES	IMO
HCE	-0.0382**
	(0.019)
GFCF	0.0879***
	(0.026)
FDI	0.264***
	(0.052)
GEXP	0.0652*
	(0.038)
TRD	0.00287
	(0.009)
KOFGI	-0.0129
	(0.017)

Table 7: Long-Run Impact of Globalization on Economic Growth
among Middle-Income Countries in Africa (All)VAPIARIESVAPIARIESPMC

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 8a: Short-Run Impact of Globalization on Economic Growth among Middle-Income Countries in Africa (All the Countries)

Variables	Algeria	Benin	Botswana	Cameroon	Comoros	Congo, Ren.	Cote d'Ivoire	Egypt	Eswatini	Gabon	Ghana
ec	-0.357*	-1.103***	-0.507**	-0.321***	-0.936***	-0.136	-0.530***	-0.411***	-0.945***	-0.665***	-0.490***
	(0.200)	(0.242)	(0.200)	(0.103)	(0.284)	(0.183)	(0.159)	(0.153)	(0.163)	(0.160)	(0.184)
D.IGDPP	-0.181	-0.0138	-0.255**	-0.048	-0.172	-0.270*	-0.324**	-0.172	-0.0914	-0.0677	-0.0278
	(0.167)	(0.148)	(0.127)	(0.124)	(0.170)	(0.156)	(0.146)	(0.122)	(0.129)	(0.125)	(0.163)
D.HCE	0.215	-0.0362	-1.258***	0.288	0.132	-0.0628	0.0758	-0.205**	-0.0189	0.172	-0.0684
	(0.178)	(0.168)	(0.276)	(0.256)	(0.332)	(0.133)	(0.283)	(0.092)	(0.107)	(0.164)	(0.087)
D.GFCF	-0.0106	0.122	0.0379	0.964***	-0.167	-0.134	1.172***	0.162*	0.892***	0.647***	-0.12
	(0.182)	(0.166)	(0.295)	(0.327)	(0.660)	(0.083)	(0.272)	(0.091)	(0.243)	(0.140)	(0.095)
D.FDI	-0.299	-0.603	0.278	-0.325	-0.682	-0.0247	1.959***	0.313**	-0.0654	0.443***	0.259
	(0.724)	(0.417)	(0.265)	(0.287)	(1.057)	(0.063)	(0.754)	(0.150)	(0.118)	(0.165)	(0.228)
D.GEXP	-0.38	0.208	0.496**	0.921*	0.118	-0.228	1.090*	0.839***	0.657***	1.176***	0.464***
	(0.299)	(0.293)	(0.246)	(0.516)	(1.602)	(0.230)	(0.649)	(0.287)	(0.221)	(0.333)	(0.164)
D.TRD	0.225	0.0827	0.236***	0.093	0.341	-0.0517	0.0996	-0.0286	-0.069	-0.137	0.0542*
	(0.141)	(0.069)	(0.080)	(0.062)	(0.266)	(0.060)	(0.091)	(0.033)	(0.043)	(0.099)	(0.030)
D.KOFGI	-0.166	0.173	-0.412	0.103	-0.925	0.505	-0.273	-0.321**	0.73	-0.539	-0.976***
	(0.260)	(0.261)	(0.426)	(0.354)	(0.643)	(0.492)	(0.508)	(0.147)	(0.498)	(0.341)	(0.299)
Constant	0.489	3.911	2.489**	0.69	3.195	-0.544	1.202	1.913*	3.830*	-0.0878	2.682**
	(0.712)	(2.384)	(1.228)	(0.683)	(2.091)	(0.981)	(1.101)	(1.040)	(2.224)	(1.160)	(1.342)
Obs	770	770	770	770	770	770	770	770	770	770	770

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 8b: Short-run Impact of Globalization on Economic Growth among Middle-Income Countries in Africa (All the Countries)

Variables Guinea	Kenya	Libya	Mauritania	Mauritius	Morocco	Namibia	Nigeria	Senegal	Tanzania	Zimbaby

ec	- 0.736***	- 0.766***	- 1 463***	-1.263***	-0.929***	-	- 1.020***	-0.271*	-0.654***	-0.357**	-0.733***
	(0.162)	(0.214)	(0.195)	(0.124)	(0.223)	(0.265)	(0.227)	(0.138)	(0.173)	(0.182)	(0.151)
D.IGDPP	0.0127	0.0539	0.119	0.315***	-3.6E-05	0.264*	0.191	-	-0.204	-0.142	0.335**
	(0.131)	(0.187)	(0.112)	(0.090)	(0.157)	(0.152)	(0.173)	(0.146)	(0.126)	(0.182)	(0.148)
D.HCE	-0.0815	-0.0131	-0.0803	-0.259***	-0.183	0.261	-0.0195	0.0762	-0.722***	0.0727	-0.301*
	(0.051)	(0.144)	(0.327)	(0.072)	(0.259)	(0.222)	(0.170)	(0.080)	(0.175)	(0.155)	(0.164)
D.GFCF	-0.125*	0.553**	-0.061	0.303***	0.349**	0.252	-0.017	0.039	0.00446	0.0632	-0.0456
	(0.072)	(0.241)	(0.655)	(0.044)	(0.173)	(0.349)	(0.241)	(0.184)	(0.197)	(0.112)	(0.269)
D.FDI	0.128	0.45	2.427	0.342***	0.117	0.212	0.0477	0.932**	0.816***	-0.059	0.563
	(0.106)	(0.415)	(2.092)	(0.058)	(0.261)	(0.285)	(0.244)	(0.422)	(0.286)	(0.226)	(0.801)
D.GEXP	-0.184	0.00425	0.896***	-0.019	2.992***	2.689***	0.115	-0.321	-0.617	-0.0744	-0.0627
	(0.184)	(0.414)	(0.344)	(0.140)	(0.675)	(0.635)	(0.384)	(0.430)	(0.434)	(0.252)	(0.242)
D.TRD	0.0746**	-0.112	0.464**	-0.049	0.0332	-0.119	-0.068	-0.0214	-0.0353	-0.0098	-0.327***
	(0.038)	(0.080)	(0.191)	(0.043)	(0.067)	(0.088)	(0.103)	(0.066)	(0.069)	(0.071)	(0.115)
D.KOFGI	-0.789**	-0.23	-0.472	0.786**	-0.221	0.0155	0.107	0.0513	0.129	0.103	1.118
	(0.314)	(0.415)	(1.608)	(0.335)	(0.326)	(0.280)	(0.396)	(0.398)	(0.303)	(0.356)	(1.021)
Constant	2.972*	2.688	4.613	-0.913	5.106**	6.123*	2.486	0.474	1.859	0.957	1.66
	(1.547)	(1.682)	(3.282)	(2.532)	(2.321)	(3.597)	(2.181)	(0.742)	(1.450)	(0.912)	(1.929)
Obs	770	770	770	770	770	770	770	770	770	770	770

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1 Table 7 results indicate a significant negative impact of household consumption expenditure (-0.0382) on economic growth in African middle-income countries over the long run (1% significance level). The coefficient suggests that a one-unit rise in consumption expenditure leads to a -0.0382-unit decrease in economic growth. This shows potential tradeoffs between consumption and investment, as excessive spending may hinder savings for productive investments crucial for sustained growth. The study also reveals a positive and significant relationship between gross fixed capital formation and long-term economic growth, emphasizing capital accumulation's pivotal role in driving sustained economic development. Similarly, foreign direct investment positively and significantly influences long-term economic growth, as it brings in capital, technology, and expertise. When strategically allocated, government expenditure positively affects economic growth in the long run by stimulating economic activity. Interestingly, no statistically significant influence of globalization on long-term economic growth is observed in African middle-income countries, suggesting a nuanced relationship that requires further exploration.

Examining the results in Table 8a-b, the study unveils insights into the short-term economic dynamics of middle-income African countries. Notably, an upswing in household consumption expenditure negatively impacts economic growth in Botswana, Egypt, Mauritania, Senegal, and Zimbabwe at a 5% significance level. This short-term effect suggests that heightened consumer spending might divert resources from savings or hindering long-term economic investment. development. High consumption levels are traditionally linked to lower savings rates, potentially impeding crucial productive investments. In contrast, the study reveals a positive impact of gross fixed capital formation on short-term economic growth in Cameroon, Cote d'Ivoire, Egypt, Eswatini, Guinea, Kenya, Mauritania, and Mauritius. This implies that within the specified timeframe, increased investments in physical assets correlate with an overall economic enhancement for these nations, emphasizing the importance of strategic investments in fostering economic development.

A positive relationship between FDI and short-term economic growth is identified in Cote d'Ivoire, Egypt, Gabon, Mauritania, Nigeria, and Senegal. This suggests that heightened FDI is correlated with improved economic performance, potentially through contributions to sectors like agriculture, services, energy, tourism, and strategic industries.

The study highlights a positive correlation between government expenditure and economic growth in the short-run in countries such as Botswana, Cameroon, Cote d'Ivoire, Egypt, Eswatini, Ghana, Morocco, Libya, Mauritius, and Morocco. Increased government spending, particularly in critical infrastructure, education, and healthcare sectors, contributes to short-term economic growth, creating employment opportunities and enhancing overall productivity. A positive correlation between trade balance and economic growth in the short-run is observed in Botswana, Ghana, Guinea, and Libya. Maintaining a beneficial trade balance, marked by high export revenues and trade surpluses, is linked to economic growth within these nations. However, Zimbabwe experiences an adverse effect, primarily due to its dependence on commodity exports and volatility in global commodity prices.

The impact of globalization on economic growth mirrors the findings observed in lower-middle-income and upper-middle-income country classifications. Egypt, Ghana, and Guinea exhibit a negative effect, suggesting that high global integration is associated with diminished economic growth in the short run. In contrast, Mauritania experiences a positive influence, emphasizing the advantages of increased global integration, including expanded trade opportunities, foreign investment, and technology transfer for short-term economic outcomes.

Impact of Globalization on Economic Growth among Middle-Income Countries in Africa (All Countries and All Individual Globalization Indices)

The study also assessed the impact of globalization on economic growth among middle-income countries in Africa while accounting for the Individual Globalization Indices. The results are presented in Table 9.

Variables	All	Lower-	High		
		Middle-	Middle-		
		Income	Income		
ec	-1.150***	-0.759***	-1.507***		
	(0.0518)	(0.0529)	(0.100)		
D.IGDPP	-0.000352	-0.0746*	0.135**		
	(0.0323)	(0.0410)	(0.0556)		
D.HCE	-0.132***	-0.0593*	-0.0652		
	(0.0404)	(0.0337)	(0.127)		
D.GFCF	-0.0624	0.0740**	0.162		
	(0.0397)	(0.0301)	(0.166)		
D.FDI	0.00876	-0.0267	-0.0434		
	(0.0570)	(0.0426)	(0.246)		
D.GEXP	0.672***	0.00608	0.900***		
	(0.0746)	(0.0762)	(0.179)		
D.TRD	0.0290	-0.0390*	0.234***		
	(0.0254)	(0.0210)	(0.0719)		
D.KOFEcGI	10.68***	0.690	16.69***		
	(2.045)	(2.164)	(4.227)		
D.KOFTrGI	5.326***	-0.266	8.077***		
	(1.004)	(1.069)	(2.016)		
D.KOFFiGI	5.271***	-0.422	8.527***		
	(1.034)	(1.090)	(2.171)		
D.KOFSoGI	-5.458	-5.478**	-22.51*		
	(3.351)	(2.579)	(11.71)		
D.KOFIpGI	2.196*	2.268**	7.555*		
	(1.175)	(0.909)	(4.058)		
D.KOFInGI	1.984*	1.820**	7.220*		
	(1.099)	(0.847)	(3.831)		
D.KOFCuGI	1.966*	1.953**	8.323**		
	(1.103)	(0.848)	(3.879)		
D.KOFPoGI	0.141**	0.0805	0.310**		
	(0.0657)	(0.0592)	(0.138)		
HCE	-0.0716***	-0.0595*	-0.142**		
	(0.0238)	(0.0308)	(0.0577)		
GFCF	0.00355	-0.0155	0.120		
	(0.0306)	(0.0356)	(0.110)		
FDI	-0.0157	0.0768	0.263		
~~~~	(0.0591)	(0.0689)	(0.193)		
GEXP	-0.0700	-0.112	-0.0600		
	(0.0494)	(0.0708)	(0.0996)		
TRD	0.0277**	0.0308	-0.0367		

Table 9: Impact of Globalization on Economic Growth amongMiddle-Income Countries in Africa (All Countries and AllIndividual Globalization Indices)

Variables	All	Lower-	High
		Middle-	Middle-
		Income	Income
	(0.0141)	(0.0197)	(0.0369)
KOFEcGI	0.238	-1.204	-0.165
	(0.894)	(1.134)	(2.124)
KOFTrGI	-0.185	0.493	0.0603
	(0.436)	(0.553)	(1.014)
KOFFiGI	-0.0581	0.705	0.0850
	(0.459)	(0.578)	(1.108)
KOFSoGI	-0.720	-1.748	9.596**
	(0.961)	(1.101)	(4.067)
KOFIpGI	0.380	0.715*	3.021**
	(0.341)	(0.392)	(1.416)
KOFInGI	0.266	0.607*	3.099**
	(0.314)	(0.363)	(1.291)
KOFCuGI	0.192	0.571	3.476**
	(0.325)	(0.372)	(1.355)
KOFPoGI	-0.0743**	-0.102**	-0.175***
	(0.0334)	(0.0474)	(0.0617)
Constant	3.641	3.789	22.18*
	(3.393)	(3.179)	(12.77)
	3.641	3.789	22.18*

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 9 presents findings on the drivers of economic growth in middleincome African countries, differentiating between upper-middle-income and lower-middle-income categories. A negative and statistically significant relationship is uncovered between household consumption expenditure and economic growth, both in the short and long run. This suggests that, on average, higher household consumption spending hampers economic growth. The negative relationship shows potential trade-offs between consumption and investment, emphasizing the need for a good approach to resource allocation for sustained economic development. In lower-middle-income countries, a statistically significant and positive relationship is identified between gross fixed capital formation (investment in physical assets) and short-term economic growth. This implies that increased investments in infrastructure and tangible assets contribute to enhanced economic growth. The positive relationship explains the pivotal role of strategic capital investments in fostering economic development, supporting productivity, technological advancement, and overall efficiency. Government expenditure exhibits a statistically significant and positive influence on economic growth in the short-run for all middle-income nations, especially in the upper-middle-income category. However, the impact lacks statistical significance for lower-middle-income countries, indicating potential variations in the effectiveness of government expenditure policies across income categories within middle-income countries in Africa. The study reveals a strong relationship between trade balance and short-term economic growth. Upper-middle-income countries experience a statistically significant and positive influence, while lower-middle-income nations face a negative impact. However, in the long run, trade balance positively and significantly influences economic growth for all middle-income countries, emphasizing the enduring importance of maintaining a favorable trade balance for sustained economic growth.

Economic, political, financial, and political globalization collectively impact economic growth in the short-run in upper-middle-income and all middle-income countries. Increased globalization is associated with higher economic growth in the short run, particularly pronounced for upper-middle-income countries. However, the positive impact is not statistically significant in the short term for lower-middle-income nations, revealing potential variations in the globalization-growth dynamics across different income groups. Statistically significant and positive influences of interpersonal, informational, and cultural globalization on economic growth in the short-run are observed across the spectrum of middleincome countries. Increased connectivity, information exchange, and cultural interactions contribute positively to economic development in both upper-middle and lower-middle-income countries in Africa in the short term. Social globalization significantly and negatively impacts economic growth in the short-run for both upper- and lower-middleincome African countries. Increased social interconnectedness, cultural exchange, and societal integration pose challenges or trade-offs for immediate economic growth, emphasizing the need to carefully consider the socio-economic dynamics associated with globalization in the short run.

Long-term effects reveal a significant and positive influence of interpersonal, informational, and cultural globalization on economic

growth for both upper- and lower-middle-income African countries. Sustained connectivity, information exchange, and cultural interactions contribute to enduring economic development, fostering prosperity in the long run. Political globalization has a statistically significant negative influence on long-term economic growth across all middle-income countries. High political interconnectedness, regulatory harmonization, or institutional integration may pose long-term challenges, highlighting complexities and trade-offs associated with potential political globalization. Social globalization, in contrast, shows a statistically significant and positive influence on economic growth in the long-run, specifically for upper-middle-income African countries. Sustained social interconnectedness, cultural exchange, and societal integration contribute positively to economic development within this income group in the long run.

#### **Conclusion and Policy Recommendations**

The study examines the relationship between globalization and economic growth in Africa, focusing on distinctions between upper-middle-income and lower-middle-income nations. Government expenditure emerges as a positive catalyst for short-term growth in Libya, with long-term benefits observed in Gabon and Mauritius. Trade dynamics reveal a scenario, with Botswana experiencing short-term growth driven by a favorable trade balance, contrasting with Gabon's long-term growth challenges linked to trade imbalances.

The impact of globalization on economic growth varies in the short term, showcasing negativity in Botswana, Ghana, and Guinea, while Mauritania sees positive effects. The study shows the nature of globalization effects among middle-income countries. Gross fixed capital formation and foreign direct investment play pivotal roles in long-term growth, while household consumption expenditure negatively influences it, highlighting the need for balanced investment strategies.

Exploring diverse globalization dimensions, interpersonal, informational, and cultural globalization positively affect short-term growth across middle-income countries. However, social globalization presents short-term challenges. In the long run, interpersonal, informational, and cultural globalization remain positive, but political globalization negatively

influences economic growth, explaining complexities in political interconnectedness.

Policy recommendations include developing a comprehensive government expenditure strategy aligned with national goals, establishing economic planning commissions, and ensuring transparent budgetary processes. Adaptive trade policies, guided by a trade advisory board, are proposed, alongside a globalization management framework involving impact assessments, collaboration with international organizations, and diplomatic ties. The study also advocates investment-friendly policies, leveraging investment promotion agencies and incentives. Tailored globalization strategies, recognizing country-specific variations, are advised. Collaboration with cultural organizations and educational institutions is recommended to address political globalization challenges, fostering international exchanges and promoting cultural diversity.

The study also urges African governments to craft long-term economic plans, overseen by a national planning committee, emphasizing adaptability to changing economic conditions. The condensed recommendations stress the importance of strategic government expenditure, adaptive trade policies, globalization management, investment-friendly policies, tailored strategies, and long-term economic planning for sustainable growth.

#### References

- Ahmad, M. (2019). Globalisation, economic growth, and spillovers: a spatial analysis margin: *The Journal of Applied Economic Research*, 13(3): 255–276.
- Dreher, A. (2003). Does Globalization Affect Growth? 2003 Conference, University of Mannheim, Germany.
- Dreher, A., Gaston, N., & Martens, P. (2008). Measuring globalisation: Gauging its consequences. New York: *Springer Science Business Media*, LLC.
- Gorodnichenko, Y., Svejnar, J., & Terrell, K. (2008). Globalization and Innovation in Emerging Markets. IZA Discussion Paper No.

3299. Retrieved from <u>https://www.strategy-</u> business.com/article/re00038?gko=086dd on July 24, 2020.

- Gygli, S., Haelg, F., & Sturm, J. E. (2018). *The KOF Globalization Index-Revisited, KOF* Working Paper, No. 439.
- Hammudeh, S., Sohag, K., Husain, S., Husain, H., & Said, J. (2020). Nonlinear relationship between economic growth and nuances of globalisation with income stratification: Roles of financial development and governance. *Economic Systems*, 44(3), 100761.
- Hasan, M. A. (2019). Does globalization accelerate economic growth? South Asian experience using panel data. *Hasan Economic Structures, Journal of Economic Structures*, 8(26): 1-13.
- Heimberger, P. (2022). Does economic globalisation promote economic growth? A meta- analysis. *The World Economy*, 45(6), 1690-1712.
- Ibrahim, A. A. (2013). The impact of globalization on Africa. International Journal of Humanities and Social Science, 3(15): 85-93.
- Juodis, A., Karavias, Y., & Sarafidis, V. (2021). A homogeneous approach to testing for Granger non-causality in heterogeneous panels. *Empirical Economics*, 60(1), 93-112.
- Kilic, C. (2015). Effects of globalization on economic growth: panel data analysis for developing countries. *Economic Insights Trends and Challenges*, 4(67): 1 11.
- Kılıçarslan, Z. & Dumrul, Y. (2018). The impact of globalization on economic growth: empirical evidence from the Turkey. *International Journal of Economics and Financial Issues*, 8(5): 115-123.
- Kolb, M. (2018). What is globalization? And how has the global economy shaped the United States. Peterson Institute for International Economics. https://www.piie.com/microsites/globalization/what-is-globalization.

- Lere, I. B. (2014). Globalisation and development. The impact on Africa; a political economy approach. OIDA International Journal of Sustainable Development, 07(09): 153-162
- Masteikienea, R. & Venckuvieneb, V. (2015). Changes of economic globalization impacts on the Baltic States business environments at the 4th World Conference on Business, Economics and Management, *Procedia Economics and Finance*, 26: 1086 – 1094.
- Meraj, M. (2013). Impact of globalization and trade openness on economic growth in Bangladesh. *Ritsumeikan Journal of Asia Pacific Studies*, 32: 40-50.
- Ortiz-Ospina, E. (2017). Is globalization an engine of economic development. *Pridobljeno*, 18(2).
- Rennen, W & Martens, P. (2003). 'The globalisation timeline. Integrated Assessment, 4(3): 137-144. Retrieved from <u>https://journals.sfu.ca/int_assess/index.php/iaj/article/</u> <u>viewFile/136/91</u> on July 24, 2020.
- Samimi, P., & Jenatabadi, H. S. (2014). Globalization and economic growth: Empirical evidence on the role of complementarities. *PloS one*, 9(4), e87824.
- Suci, S. C., Asmara, A. & Mulatsih, S. (2015). The impact of globalization on economic growth in ASEAN. *International Journal of Administrative Science & Organization*, 22(2): 1-12.
- Titalessy, P. B. (2018). The impact of globalisation on economic growth in Asia-Pacific. *Asia Pacific Institute of Advanced Research* (APIAR), 4(2):70-85.
- Wani, S. H., & Mir, M. A. (2021). Globalisation and economic growth in India: An ARDL approach. *The Indian Economic Journal*, 69(1), 51-65.
- Wenjing, W., Rongcheng, W., Ayenagbo, K., Nguhi, S., Kimatu, J. N. & Patrick, J. M. (2012). The impact of globalization on African countries economic development. *African Journal of Business Management*, 6(44): 11057-11076.

Ying, Y., Chang, K. & Lee, C. (2014). The impact of globalization on economic growth. *Romanian Journal of Economic Forecasting*, 17(2): 25-34.