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The Globalization-Governance-Poverty Nexus: Examining Pathways in Developing Countries

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Abstract
Globalization involves the removal of barriers to the movement of people, goods, services, and information on a global scale. This study aims to examine the impact of globalization and governance on poverty across 77 developing countries from 2007 to 2020, utilizing the quantile regression method (QRM). The findings indicate that both globalization and governance exert negative effects on poverty. As globalization increases, so does economic growth, leading to a decrease in poverty levels in these nations. Moreover, effective governance enhances economic growth, contributing to poverty alleviation. Economic, social, and political globalization play significant roles in poverty reduction. The study suggests that governments may pursue policies centered on globalization and development to help developing countries achieve poverty alleviation goals.
Keywords: Globalization, Competitiveness, Unemployment, Inflation, Quantile Regression

1. Introduction

Globalization implies increased economic integration, which manifests itself through a variety of monetary transmission mechanisms such as investment and trade liberalization. There is proof that trade openness fosters economic growth that helps those who are poor (Leyaro, (2009) Goldberg *et al.*, (2004, 2007), Nissanke *et al.*, (2006). These mechanisms have an impact on poverty in two ways: first, through their achievements in the growth channel; and second, through their influence on income distribution (Agénor, 2004). Globalization is also widely recognized for directly creating winners and losers and affecting both vertical and horizontal issues of inequality (Kang-Kook and Lee,2014; Nissanke and Thorbecke, 2010). The concept of globalization is complex. Our method of measuring globalization is the KOF index (Dreher et al. 2008; Dreher 2006a; Dorn et al.2018). Many economists and international organizations believe that globalization promotes poverty reduction and economic growth (Liang 2006; Dollar and Kraay 2002, 2004; Agénor 2004; Levinsohn, Berry and Friedman, 2003). Many researchers have recently become interested in the impact of globalization on income inequality (Dorn et al, 2018). There is growing concern that globalization will worsen income inequality and obstruct poverty alleviation. It is imperative to create more thorough assessments of globalization's effectiveness given the public debates. Considering the public debate, it is crucial to create more accurate and comprehensive evaluations of the impacts of globalization (Kang-Kook and Lee, 2014).

Governance is important for poverty reduction because it directs how social services are made available to the poor. This study uses six indicators to assess governance: voice, accountability and transparency; political stability; government effectiveness; institutional quality; rule of law; and corruption control (Siddique et al. 2016). According to some research, development initiatives significantly reduce poverty (Zhang et al, 2023; Alvi and Senbeta, 2012; Aschauer ,1989). Particularly, infrastructure projects effectively improve recipient countries' standard of living. According to Yang et al. (2020), infrastructure investment in a large number of Asian countries boosted welfare, terms of foreign trade, and economic growth. Empirical research has shown Infrastructure improvements boost GDP by reducing production and transaction costs and raising productivity (Mallek et al, 2024; Calder´on & Serven, 2010; Munnel, 1992; Calder´on et al., 2015). Some empirical studies have examined the connection between infrastructure advancement and poverty decline, in dissimilarity to the majority of studies, which show the relationship between infrastructure development and economic growth (Mallek et al, 2024; Awad, 2023; Fagbemi et al., 2022; Wu et al., 2022; Alimi & Okunade,2020; Chotia and Rao,2017a,b; Sasmal and Sasmal, 2016; Chakamera and Alagidede, 2018; Kodongo and Ojah, 2016). Utilizing access to transport networks, like highways, bridges, and trains, may reduce levels of poverty, for example, by minimizing the cost of shipping goods and services, increasing accessibility to markets and jobs, as well as encouraging trade and investment, all of which can raise GDP and employment (Akbar et al., 2022; Chen et al., 2023; Mallek et al, 2024).

Globalization can provide numerous benefits, including poverty alleviation. It also creates opportunities for small businesses and openings for labor in the export processing industry that have arrived, bringing FDI into the country. Openness also brings new understanding, high-quality health-related goods, and market competitiveness, resulting in a higher standard of living (Qadir and Majeed, 2018). In the field of global trade and development, the relationship between trade liberalization and poverty has become substantial momentum in the last few years (Naranpanawa et al, 2011). Additionally, recent research has focused on exploring how a healthy financial system improves the quality of life of the poor (Akhter et al., 2010; Perez-Moreno, 2011; Jeanneney and Kpodar, 2011). Globalization on the political and social fronts probably has an impact on income disparity as well. Political globalization may encourage nations to establish comparable minimum standards, consequently promoting national equality (Dreher 2006b; Dorn et al 2018). Global competitiveness is referred to as an economy's ability

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to draw in foreign investment, promote economic expansion, and uphold high living standards for its people in a globalized marketplace (Marti and Puertas, 2023; Qazi et al,2024). Globalization of investments seeking higher rates of return and international investment opportunities has been a major driver of this development (Agenor, 2004; Agenor, 2002) According to Ravallion (2004), Winters et al. (2004), Goldberg and Pavcnik (2004) comprehensive surveys are limited to, examining indirect evidence related to the relationship between poverty and globalization. Research examining potential direct connections between the two has been few (Harrison 2007). When exports or foreign investment are increasing, poverty has decreased in certain areas Harrison, (2007). Poverty reduction is intimately linked to good governance (Ferrannini et al., 2021; Ronaghi and Ronaghi, 2021). If power and expertise are ill-treated, the poor will be excluded not just from the basic needs of life but also from society, putting them in the most miserable condition and causing enormous suffering. Transparent political systems, human rights, effective public service delivery, civil rights, market-friendly regulations, competent bureaucratic procedures, effective corruption prevention policies, independent judiciaries, and other indicators of good governance are all favorable to poverty reduction (Rakodi et al., 2000). Poverty remains a significant economic irritant, and reducing poverty is one of the most crucial problems facing the twenty-first century (Alpízar & Ferraro, 2020). Approximately 10% of the world's population, or 700 million people, are simply attempting to meet basic needs such as secure drinking water, food, health, and education. Insufficient accountability; corrupt government; insufficient infrastructure; and political instability worsen poverty (Rakodi et al., 2000).

2. Literature Review

A literature review is based on the idea that knowledge accrues and that we can learn from and construct on the work of others. There are many studies in which the performance of globalization, governance, and competitiveness with poverty in developing countries has been discussed. These studies show the factors such as globalization, governance, competitiveness, and poverty nexus.

Table 1: Summary of Empirical Studies

Author(s)	Dependent Variable	Data	Methodology	Variables	Results
Studies on Globalization and Poverty					
Hosseinidoust et al (2024)	Poverty	1997-2021	FGLS	Globalization, economic growth, inflation, geographical distribution of population	Globalization has a negative and significant impact on poverty and economic growth, inflation, and population have a positive impact on poverty
Han et al (2023)	Income inequality	1995-2018	Panel Quintile	Trade openness, capitalization, R&D expenditures, economic growth, FDI	Trade openness, and capitalization negative effect on poverty while R&D expenditures have a positive effect on Income inequality moreover economic growth negative positive effect on Income inequality, and FDI equalizes Income inequality
Pal (2023)		1991-2020	ARDL, PMG ARDL	Globalization, education, trade, financial openness	Globalization has a negative impact on poverty while trade, and financial openness positive impact on poverty.
Nessa et al (2023)	Poverty Reduction	2000-2016	Fixed effect method, GMM, Dynamic approach	Trade openness,	Trade openness significantly reduces poverty.

Javed et al (2023)	Poverty	1970-2019	Dynamic ARDL approach	Economic and Political globalization, social and financial trade	Economic and Political globalization and social and financial trade have risen economic development and reduced poverty.
			Studies on Governance and Poverty		
Mawutor et al (2024)	Energy poverty	2000-2019	GMM	Inflation, governance	Above a threshold, the relationship between energy poverty and inflation is moderated by the quality of governance. There is a negative and significant relationship between inflation and poverty.
Ochi et al (2023)	Poverty reduction	2010-2019	Dynamic Panel Threshold Estimation	Governance,	Governance has a negative impact on poverty governance increases economic development and reduces poverty
Ewane (2023)	Poverty reduction	1996-2021	Fixed effect model	government effectiveness, corruption, and political stability,	government effectiveness has a positive impact on poverty while corruption and political stability have a negative impact on poverty.
Meo at al (2023)	Poverty Reduction	1984-2016	Nonlinear ARDL, co-integration	Unemployment and Governance	Unemployment has a positive impact on poverty reduction and Governance has a negative relationship with poverty.
Bin-Feng et al (2023)	Poverty	2016-2021	Fixed effect method, GMM	Governance	Governance has a positive relationship with poverty.
			Studies on Competitiveness and Poverty		
Rontos et al (2024)	Income inequality	2005- 2019	GINI	competitiveness	Competitiveness has a positive effect on corruption and Income inequality.
Kakeu et al (2024)	Poverty Reduction	2008-2019	fixed effects, Lewbel two-stage least square mediating effects	Technological innovation	Technological innovation has negative and significant effects on poverty.
Zurrah et al (2024)	Poverty Reduction	2007-2021	Random Effect Model	regulatory quality, gross fixed capital formation, and arable land	regulatory quality, gross fixed capital formation, and arable land positively affect agricultural value-added and reduce poverty.

Arshed et al (2023)	Poverty Reduction	2006-2017	FGLS	Competitiveness	Competitiveness increases productivity and reduces poverty.
Usman and Abubakr (2023)	Productivity	2001-2022	GLS	Working Poverty, population growth	Working Poverty aged 15 to 24 has a positive and significant relationship while Working Poverty aged 25 and above has a negative and significant with productivity. Population growth has a positive relationship with productivity.

After analyzing previous studies, we have concluded that the impact of globalization on poverty is negative in developing countries because, when globalization increases, economic growth will also increase, which leads to a reduction in poverty in these countries. Most studies have used GLS, FGLS, GMM, Dynamic approach, Panel Quintile, Fixed effect method, ARDL, and PMG ARDL techniques to analyze the impact of globalization on poverty. The study has examined the impact of governance on poverty in developing countries and found a negative relationship between governance and poverty. Good governance improves economic growth, and if economic growth increases, it will lead to poverty alleviation. Studies used mostly GMM, Dynamic Panel Threshold, Fixed effect method, and Nonlinear ARDL Cointegration methodologies to examine the relationship between governance and poverty. The study discovered that competition promotes growth and that economic development may contribute to poverty alleviation. The studies have used GINI, fixed effect method, Random effect method, GLS, and FGLS to analyze the relationship between competitiveness and poverty and have found a negative relationship.

3. Model Specifications, Data and Methodology

The study focuses on investigating the impact of globalization, governance, and competitiveness on poverty in developing countries. The poverty headcount ratio is the dependent variable, and the independent variables are the Governance Index, economic globalization, social globalization, political globalization, competitiveness index, GDP deflator, and unemployment rate.

$$PHCR=f(GI, CI, GDPD, UN, EG, PG, SG, EG*GI, PG*GI, SG*GI) \quad (1)$$

$$PHCR_{it} = \beta_0 + \beta_1 GI_{it} + \beta_2 CI_{it} + \beta_3 GDPD_{it} + \beta_4 UN_{it} + \beta_5 EG_{it} + \beta_6 PG_{it} + \beta_7 SG_{it} + \beta_8 (EG_{it})(GI_{it}) + \beta_9 (PG_{it})(GI_{it}) + \beta_{10} (SG_{it})(GI_{it}) + \mu_{\iota\tau} \quad (2)$$

The study examines the impact of globalization and governance on poverty in 77 developing countries. The Quantile Regression Model (QRM) has been used by using data from 2007-2020.

Table 2: Variables: Measurement and Sources

Variable	Measurement	Source
PHCR	Poverty (Poverty headcount ratio)	World Development Indicators (WDI)
GDPD	GDP deflator (Inflation rate, annual %)	
UN	Unemployment rate (% annual)	
GI	Governance Index	World Governance Indicators (WGI)
EG	Economic Globalization Index	KOF Swiss Economic Institute
SG	Social Globalization Index	
PG	Political Globalization Index	
CI	Competitiveness Index	World Economic Forum (WEF)

4. Results and Discussions

We explain the results of the impact of globalization, and governance on poverty in developing countries.

4.1. Descriptive Statistics Analysis

Table 3 provides descriptive statistics for low-income countries offering valuable insights into their socio-economic landscape. With a mean poverty headcount ratio (PHCR) of 44.89%, it's evident that a significant portion of the population grapples with poverty, highlighting the pressing need for targeted poverty alleviation measures. The mean GDP deflator, representing inflation, stands at 7.19, indicating moderate inflationary

pressures that may further strain the economic conditions of vulnerable populations. Governance, as measured by the Governance Index (GI), presents challenges, with a mean value of -0.68 possibly suggesting deficiencies in governance effectiveness. Moreover, the Competitiveness Index (CI) shows a mean value of 3.19, reflecting the level of competitiveness in the economy, which may influence economic growth and poverty reduction efforts.

In lower middle-income countries, similar dynamics are observed, albeit with some variations. The mean PHCR is 16.49%, indicating a lower but still significant prevalence of poverty compared to low-income countries. The Governance Index (GI) remains a concern, with a mean value of -0.61, suggesting room for improvement in governance structures and practices. The mean Competitiveness Index (CI) is 50.47, reflecting efforts to enhance economic competitiveness, which could positively impact poverty reduction initiatives if effectively implemented.

Upper middle-income countries exhibit different socio-economic characteristics. With a mean PHCR of 3.89%, poverty rates are relatively lower, yet still present, underscoring the need for continued poverty reduction efforts. Governance, as measured by the Governance Index (GI), shows improvement with a mean value of -0.07, indicating comparatively better governance outcomes. The mean Competitiveness Index (CI) of 59.22 highlights efforts to foster economic competitiveness, which could contribute to sustained poverty reduction and inclusive growth.

Across all developing countries, the descriptive statistics portray a diverse socio-economic landscape. The mean PHCR of 16.76% reflects the challenges posed by poverty across these nations, necessitating comprehensive poverty reduction strategies. Governance remains a critical factor, as indicated by the Governance Index (GI) mean value of -0.41, emphasizing the importance of effective governance in driving socio-economic development. Additionally, the Competitiveness Index (CI) mean value of 53.03 underscores efforts to enhance economic competitiveness as a means to alleviate poverty and promote sustainable development. These insights underscore the complexity of poverty dynamics and the importance of tailored policy interventions to address them effectively.

Table 3: Descriptive Statistics of Key Variables (2007-2020)

Low-Income Countries								
	PHCR	**GI**	**CI**	**GDPD**	**UN**	**EG**	**PG**	**SG**
Mean	44.89	-0.68	3.19	7.19	3.81	45.85	54.56	31.42
Median	50.45	-0.69	3.31	5.46	3.36	45.50	54.00	31.50
Maximum	99.70	0.02	4.48	85.35	11.71	78.00	79.00	49.00
Minimum	-158.30	-1.55	0.65	-9.56	0.32	25.00	23.00	13.00
Std. Dev.	34.45	0.33	0.65	9.22	2.57	10.67	9.78	6.34
Skewness	-2.78	-0.43	-1.44	4.40	0.96	0.72	0.05	0.11
Kurtosis	14.37	3.19	6.57	33.69	3.31	3.70	4.87	3.06
Jarque-Bera	1306.58	6.34	171.92	8326.93	30.58	20.95	28.60	0.43
Probability	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.81
Observations	196	196	196	196	196	196	196	196
Lower Middle-income Countries								
	PHCR	**GI**	**CI**	**GDPD**	**UN**	**EG**	**PG**	**SG**
Mean	16.49	-0.61	3.77	9.79	5.64	50.47	62.53	44.11
Median	10.04	-0.59	3.78	5.87	4.75	51.00	68.00	43.00
Maximum	95.40	0.59	4.89	558.56	18.33	81.00	91.00	68.00
Minimum	-64.00	-1.75	2.77	-16.76	0.40	20.00	6.00	14.00
Std. Dev.	19.11	0.42	0.41	33.86	3.51	13.65	20.09	10.43
Skewness	0.79	0.00	0.05	13.83	0.88	-0.10	-0.82	-0.02
Kurtosis	4.04	2.77	2.63	208.00	3.42	2.286	2.86	2.22
Jarque-Bera	68.11	1.00	2.83	820209.7	63.35	10.59	51.83	11.57
Probability	0.00	0.61	0.242	0.00	0.00	0.00	0.00	0.00
Observations	460	460	460	460	460	460	460	460
Upper Middle-income Countries								
	PHCR	**GI**	**CI**	**GDPD**	**UN**	**EG**	**PG**	**SG**
Mean	3.89	-0.07	4.21	5.67	10.31	59.22	68.27	64.16
Median	1.90	-0.13	4.22	4.23	7.47	59.00	68.00	64.00
Maximum	26.50	0.85	5.23	50.92	29.22	89.00	93.00	87.00
Minimum	-13.17	-0.84	3.30	-5.99	0.25	34.00	28.00	40.00
Std. Dev.	5.57	0.38	0.34	6.42	6.99	15.11	17.88	7.95
Skewness	2.01	0.45	0.44	3.21	0.83	0.11	-0.48	0.24
Kurtosis	7.35	2.64	3.57	17.41	2.63	1.81	2.18	3.16
Jarque-Bera	612.91	14.89	19.30	4345.37	50.05	25.73	28.04	4.61
Probability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
Observations	419	419	419	419	419	419	419	419

All Developing Countries								
	PHCR	**GI**	**CI**	**GDPD**	**UN**	**EG**	**PG**	**SG**
Mean	16.76	-0.41	3.83	7.71	7.13	53.03	63.31	49.61
Median	5.80	-0.40	3.89	4.95	5.20	52.00	64.00	52.00
Maximum	99.70	0.85	5.23	558.56	29.22	89.00	93.00	87.00
Minimum	-158.30	-1.75	0.65	-16.76	0.25	20.00	6.00	13.00
Std. Dev.	24.35	0.48	0.57	22.91	5.70	14.70	18.39	15.31
Skewness	0.19	0.13	-1.10	19.38	1.52	0.25	-0.48	-0.00
Kurtosis	7.76	2.98	6.94	430.59	5.07	2.36	2.70	2.03
Jarque-Bera	1022.99	3.08	909.67	8256821.	604.98	29.57	45.31	41.72
Probability	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00
Observations	1075	1075	1075	1075	1075	1075	1075	1075

4.2. Correlation Analysis

Table 4 exhibits the correlation matrix of key variables. The correlation matrix provides valuable insights into the relationships between key variables across different income groups from 2007 to 2020. In low-income countries, the poverty headcount ratio (PHCR) shows weak positive correlations with governance, environmental globalization, and gross domestic product deflator (GDPD), indicating that higher levels of governance effectiveness, environmental globalization, and inflation may be associated with higher poverty rates. Conversely, weak negative correlations are observed between the PHCR and variables such as competitiveness index (CI), unemployment rate (UN), Economic globalization (EG), political globalization (PG), and social globalization (SG), suggesting that higher unemployment rates, lower competitiveness, and less integration into global political and social systems may coincide with higher poverty levels.

Moving to lower-middle-income countries, the correlations exhibit fluctuations compared to low-income countries. While the PHCR maintains a weak positive correlation with governance and a weak negative correlation with variables such as the unemployment rate and competitiveness index, the strength and direction of these relationships vary slightly. Notably, a strong negative correlation is observed between the PHCR and social globalization, indicating that lower levels of social integration may coincide with higher poverty rates in these countries.

Table 4: Correlation Matrix of Key Variables (2007-2020)

Low-Income countries								
Correlation	**PHCR**	**GI**	**EG**	**GDPD**	**UN**	**CI**	**PG**	**SG**
PHCR	1.00							
GI	0.23	1.00						
EG	0.19	0.05	1.00					
GDPD	0.04	0.05	-0.17	1.00				
UN	-0.28	0.19	0.04	0.09	1.00			
CI	-0.15	0.25	0.10	0.10	0.27	1.00		
PG	-0.24	0.11	-0.44	0.16	-0.10	0.25	1.00	
SG	-0.25	0.31	0.31	-0.18	0.40	0.22	-0.19	1.00
Lower-Middle income countries								
Correlation	**PHCR**	**UN**	**GDPD**	**EG**	**SG**	**PG**	**CI**	**GI**
PHCR	1.00							
UN	-0.10	1.00						
GDPD	0.10	0.05	1.00					
EG	-0.14	0.20	-0.04	1.00				
SG	-0.50	0.15	-0.00	0.49	1.00			
PG	-0.00	0.20	0.03	-0.26	0.09	1.00		
CI	-0.27	0.03	-0.11	-0.05	0.45	0.36	1.00	
GI	-0.00	-0.03	-0.14	0.25	0.37	0.09	0.42	1.00
Upper-Middle income countries								
Correlation	**PHCR**	**UN**	**GDPD**	**EG**	**SG**	**PG**	**CI**	**GI**
PHCR	1.00							
UN	0.46	1.00						
GDPD	0.00	-0.05	1.00					
EG	-0.17	0.13	-0.22	1.00				
SG	-0.37	-0.18	-0.11	0.56	1.00			
PG	-0.04	-0.18	0.18	-0.34	0.04	1.00		
CI	-0.12	-0.28	-0.22	0.27	0.37	0.31	1.00	
GI	0.27	0.29	-0.14	0.45	0.21	-0.35	0.27	1.00

All Developing countries								
Correlation	**PHCR**	**GI**	**EG**	**CI**	**GDPD**	**UN**	**PG**	**SG**
PHCR	1.00							
GI	-0.21	1.00						
EG	-0.21	0.44	1.00					
CI	-0.49	0.52	0.28	1.00				
GDPD	0.06	-0.12	-0.08	-0.08	1.00			
UN	-0.24	0.38	0.28	0.22	-0.01	1.00		
PG	-0.19	0.07	-0.19	0.39	0.04	0.09	1.00	
SG	-0.60	0.60	0.55	0.66	-0.06	0.37	0.24	1.00

In upper-middle-income countries, the correlations also demonstrate fluctuations compared to lower-income groups. The PHCR exhibits a weak positive correlation with the unemployment rate, suggesting that higher unemployment rates may be associated with higher poverty levels in these countries. A notable negative correlation is observed between the PHCR and social globalization, indicating that lower levels of social integration may coincide with higher poverty rates.

Across all developing countries, the correlations reveal weak relationships between the PHCR and other variables such as governance, environmental globalization, competitiveness index, and social globalization. However, a notable negative correlation is observed between the PHCR and competitiveness index, suggesting that lower levels of economic competitiveness may be associated with higher poverty rates on a broader scale.

4.3. Unit Root Analysis

Table 5 discusses unit root analysis. It shows the results of panel unit root tests at the level of various developing countries.

Table 5: Results of Panel Unit Root Tests at level

	Intercept				**Intercept and Trend**				**None**			
Variable	**LLC Test**	**IPS Test**	**ADF - Fisher Chi-Square**	**PP-Fisher Chi-Square**	**LLC Test**	**IPS Test**	**ADF - Fisher Chi-Square**	**PP-Fisher Chi-Square**	**LLC Test**	**ADF - Fisher Chi-Square**	**PP-Fisher Chi-Square**	**Conclusion**
Low-Income Countries												
PHCR	4.59110 (1.0000)	4.55006 (1.0000)	28.1109 (0.4586)	30.2686 (0.3505)	-1.55270 (0.0602)	0.50393 (0.6928)	34.3694 (0.1890)	52.9823 (0.0030)	2.08360 (0.9814)	32.4826 (0.2553)	28.2115 (0.4533)	**I (1)**
GI	-3.73834 (0.0001)	-1.40877 (0.0795)	40.3551 (0.0615)	47.9017 (0.0110)	-4.08795 (0.0000)	-0.86623 (0.1932)	36.6068 (0.1278)	39.6546 (0.0710)	-1.27724 (0.1008)	36.6160 (0.1276)	43.1228 (0.0339)	**I (1)**
CI	-0.27776 (0.3906)	1.49786 (0.9329)	23.3876 (0.6109)	25.0613 (0.5155)	-3.52412 (0.0002)	-1.33112 (0.0916)	38.5869 (0.0534)	45.7565 (0.0097)	-0.06116 (0.4756)	23.8359 (0.5854)	25.6508 (0.4824)	**I (1)**
GDPD	-9.16155 (0.0000)	-5.76983 (0.0000)	81.6107 (0.0000)	81.6527 (0.0000)	-9.68922 (0.0000)	-4.81242 (0.0000)	69.3675 (0.0000)	95.4945 (0.0000)	-5.11376 (0.0000)	68.0796 (0.0000)	75.2107 (0.0000)	**I (0)**
UN	-0.46440 (0.3212)	2.75157 (0.9970)	22.8863 (0.7387)	177414 (0.9325)	1.87890 (0.9699)	1.15653 (0.8763)	28.7417 (0.4257)	22.0705 (0.7780)	8.97342 (1.0000)	12.0017 (0.9964)	15.5550 (0.9720)	**I (1)**

EG	-5.04807 (0.0000)	-1.58228 (0.0568)	39.2412 (0.0771)	32.6887 (0.2474)	-5.66890 (0.0000)	-1.53117 (0.0629)	42.7999 (0.0364)	44.8074 (0.0231)	2.89648 (0.9981)	15.4112 (0.9738)	17.4138 (0.9400)	**I (1)**
PG	-174.802 (0.0000)	-56.5806 (0.0000)	32.0917 (0.2709)	43.7400 (0.0295)	-3.74347 (0.0001)	-1.20495 (0.1141)	37.7055 (0.1041)	58.5731 (0.0006)	5.08208 (1.0000)	4.20412 (1.0000)	4.84192 (1.0000)	**I (1)**
SG	-11.0938 (0.0000)	-6.92642 (0.0000)	98.4918 (0.0000)	90.4713 (0.0000)	-12.1943 (0.0000)	-4.45436 (0.0000)	75.9305 (0.0000)	75.7464 (0.0000)	2.25458 (0.9879)	6.59231 (1.0000)	3.44135 (1.0000)	**I (0)**
Lower Middle-Income Countries												
PHCR	0.30085 (1.6182)	0.70710 (0.7602)	120.508 (0.0000)	158.826 (0.0000)	-3.62953 (0.0001)	-1.42210 (0.0775)	112.447 (0.0003)	166.678 (0.0000)	-4.27294 (0.0000)	137.932 (0.0000)	157.916 (0.0000)	**I (0)**
GI	1.55155 (0.9396)	3.44877 (0.9997)	46.2190 (0.9694)	37.9459 (0.9978)	-3.04699 (0.0012)	1.04891 (0.8529)	61.8325 (0.6226)	62.0506 (0.6150)	4.44342 (1.0000)	36.3903 (0.9989)	44.7015 (0.9794)	**I (1)**
CI	1.55155 (0.9396)	3.44877 (0.9997)	46.2190 (0.9694)	37.9459 (0.9978)	-3.04699 (0.0012)	1.04891 (0.8529)	61.8325 (0.6226)	62.0506 (0.6150)	4.44342 (1.0000)	36.3909 (0.9989)	44.7015 (0.9794)	**I (1)**
GDPD	-6.11012 (0.0000)	-4.28060 (0.0000)	133.242 (0.0000)	171.903 (0.0000)	-14.0001 (0.0000)	-8.46081 (0.0000)	188.530 (0.0000)	224.584 (0.0000)	-6.17202 (0.0000)	140.388 (0.0000)	147.653 (0.0000)	**I (0)**
UN	-2.83266 (0.0023)	-0.93426 (0.1751)	89.7279 (0.0277)	72.2492 (0.2792)	-1.56131 (0.0592)	1.43829 (0.9248)	56.1955 (0.7998)	36.4806 (0.9988)	2.06832 (0.9807)	30.2486 (1.0000)	483206 (0.9498	**I (1)**
EG	-6.04223 (0.0000)	-3.05741 (0.0011)	104.435 (0.0018)	85.3274 (0.0550)	-8.77474 (0.0000)	-3.42309 (0.0003)	111.730 (0.0004)	135.435 (0.0000)	0.41840 (0.6622)	43.7386 (0.9843)	47.9390 (0.9539)	**I (0)**
PG	-0.66317 (0.2536)	1.76120 (0.9609)	50.7434 (0.7970)	46.3086 (0.9028)	-7.42575 (0.0000)	-2.44386 (0.0073)	95.6497 (0.0100)	108.809 (0.0007)	2.92922 (0.9983)	25.5866 (1.0000)	31.2542 (0.9996)	**I (1)**
SG	-13.0540 (0.0000)	-8.60716 (0.0000)	200.713 (0.0000)	226.874 (0.0000)	-9.73302 (0.0000)	-1.18056 (0.0000)	105.259 (0.0000)	98.2402 (0.0000)	4.62058 (1.0000)	11.4734 (1.0000)	10.8860 (1.0000)	**I (0)**
Upper Middle-Income Countries												
PHCR	-3.70290	-1.95065	88.2687	136.745	-3.50156	0.83068	67.1319	78.9268	-4.11494	174.236	190.013	**I (0)**

	(0.0001)	(0.0255)	(0.0064)	(0.0000)	(0.0002)	(0.7969)	(0.1926)	(0.0352)	(0.0000)	(0.0000)	(0.0000)	
GI	-4.92566 (0.0000)	-1.08433 (0.1391)	73.7919 (0.1087)	71.6641 (0.1440)	-6.87914 (0.0000)	-2.28568 (0.0111)	90.2862 (0.0069)	96.5855 (0.0019)	-4.55593 (0.0000)	113.290 (0.0000)	125.174 (0.0000)	**I (0)**
CI	-2.36336 (0.0091)	1.88915 (0.9706)	45.3247 (0.9201)	52.7940 (0.7339)	-6.19124 (0.0000)	-1.75792 (0.0394)	81.6195 (0.0332)	96.3985 (0.0020)	8.24066 (1.0000)	9.50093 (1.0000)	10.7727 (1.0000)	**I (1)**
GDPD	-10.5361 (0.0000)	-6.17014 (0.0000)	152.327 (0.0000)	186.709 (0.0000)	-16.6018 (0.0000)	-9.79326 (0.0000)	187.838 (0.0000)	260.760 (0.0000)	-7.52307 (0.0000)	149.478 (0.0000)	187.607 (0.0000)	**I (0)**
UN	-9.36378 (0.0000)	-0.37993 (0.3520)	85.5983 (0.0167)	67.4220 (0.2383)	-3.92724 (0.0000)	1.39699 (0.9188)	68.9621 (0.2002)	44.5889 (0.9315)	0.74208 (0.7710)	35.4594 (0.9951)	35.4351 (0.9952)	**I (1)**
EG	-2.66086 (0.0039)	-0.24574 (0.4029)	67.8703 (0.2268)	81.8759 (0.0318)	-7.46956 (0.0000)	-3.11661 (0.0009)	104.017 (0.0004)	113.571 (0.0000)	-0.04120 (0.4836)	62.3253 (0.3935)	78.6852 (0.0532)	**I (0)**
PG	-14.0225 (0.0000)	-8.06307 (0.0000)	142.925 (0.0000)	140.873 (0.0000)	-26.0726 (0.0000)	-8.72270 (0.0000)	131.746 (0.0000)	131.595 (0.0000)	3.96169 (1.0000)	24.4298 (1.0000)	26.3812 (0.9999)	**I (1)**
SG	-13.5690 (0.0000)	-8.77405 (0.0000)	172.229 (0.0000)	232.625 (0.0000)	-5.55531 (0.0000)	-0.14141 (0.4438)	76.3420 (0.0758)	127.657 (0.0000)	2.81593 (0.9976)	24.2348 (1.0000)	12.1805 (1.0000)	**I (0)**
All Developing Countries												
PHCR	-0.16909 (0.5672)	1.16309 (0.8776)	236.888 (0.0000)	325.840 (0.0000)	-5.16272 (0.0000)	-0.22254 (0.4119)	213.948 (0.0007)	298.586 (0.0000)	0.13270 (0.2855)	344.650 (0.0000)	376.140 (0.0000)	**I (0)**
GI	-5.53192 (0.0000)	-0.47987 (0.3157)	172.454 (0.1469)	175.549 (0.1127)	-8.43052 (0.0000)	-2.08540 (0.0185)	198.435 (0.0091)	216.300 (0.0007)	-4.15075 (0.0000)	246.915 (0.0000)	273.559 (0.0000)	**I (0)**
CI	-0.82514 (0.2046)	4.08126 (1.0000)	114.931 (0.9890)	115.801 (0.9871)	-7.25533 (0.0000)	-0.97556 (0.1646)	182.039 (0.0486)	204.206 (0.0030)	8.77713 (1.0000)	69.7271 (1.0000)	81.1250 (1.0000)	**I (1)**
GDPD	-14.3157 (0.0000)	-9.09451 (0.0000)	367.179 (0.0000)	440.264 (0.0000)	-23.8172 (0.0000)	-13.6956 (0.0000)	445.735 (0.0000)	580.839 (0.0000)	-10.8206 (0.0000)	357.945 (0.0000)	410.471 (0.0000)	**I (0)**

UN	-6.93916 (0.0000)	0.31896 (0.6251)	198.212 (0.0094)	157.413 (0.4087)	-3.16462 (0.0008)	2.30768 (0.9895)	153.899 (0.4871)	103.140 (0.9994)	7.99012 (1.0000)	77.7098 (1.0000)	99.3107 (0.9998)	**I (1)**
EG	-7.62436 (0.0000)	-2.82769 (0.0023)	211.547 (0.0014)	199.892 (0.0076)	-12.6749 (0.0000)	-4.84006 (0.0000)	258.547 (0.0000)	293.813 (0.0000)	5.34743 (1.0000)	31.6365 (1.0000)	37.1270 (0.9999)	**I (0)**
PG	-182.474 (0.0000)	-28.4713 (0.0000)	225.760 (0.0000)	230.922 (0.0000)	-26.7220 (0.0000)	-7.55526 (0.0000)	265.102 (0.0000)	298.978 (0.0000)	6.02468 (1.0000)	54.2205 (1.0000)	62.4773 (1.0000)	**I (0)**
SG	-21.5254 (0.0000)	-14.0673 (0.0000)	471.434 (0.0000)	549.970 (0.0000)	-15.5624 (0.0000)	-2.76096 (0.0029)	257.532 (0.0000)	301.643 (0.0000)	5.09131 (1.0000)	42.3006 (1.0000)	26.5078 (1.0000)	**I (0)**

According to Table 5, PHCR, PG, GI, EG, CI, and UN are non-stationary with intercept, intercept, and trend and none because the majority of test results failed to reject the null hypothesis. GDPD and CI are stationary because the majority of test results reject the null hypothesis in low-income countries. According to Lower Middle-income countries unit root test results show PHCR, GDPD, EG, and SG are declared stationary with intercept, intercept, and trend and none because the majority of test results reject the null hypothesis.PG, GI, CI, and UN are identified as non-stationary because the majority of test results failed to reject the null hypothesis. According to upper-middle-income countries, unit root test results indicate that PHCR, GI, GDPD, EG, and SG are stationary because the majority of the test results reject the null hypothesis.PG, CI, and UN are non-stationary because the majority of test results failed to reject the null hypothesis While PHCR, PG, GI, GDPD, EG, and SG are stationary with intercept, intercept, and trend, and none because the majority of test results reject the null hypothesis Moreover, CI and UN are non-stationary because the majority of test results fail to reject the null hypothesis in all developing countries.

4.4. Quantile Regression Results

Table 6 exhibits the Quantile Regression of Poverty in Low-Income Countries. In this table, the dependent variable is the poverty headcount ratio (PHCR) and the independent variables are the Governance Index, Competitive Index, GDP Deflator, Unemployment Rate, Economic Globalization Index, Political Globalization Index, Social Globalization Index, and interaction terms of EG*GI, PG*GI and SG*GI.

The Governance Index (GI) variable, as analyzed across different quantiles in Table 6 offers valuable insights into its relationship with poverty levels in low-income countries. At the 10th quantile, an increase in the Governance Index is associated with a decrease in the poverty headcount ratio, although this association is not statistically significant. However, as we move to higher quantiles, particularly at the 20th, and from 0.3 to 0.8 quantiles, the negative relationship strengthens, signifying that improved governance quality correlates with lower poverty levels. Notably, at the 20th quantile, this relationship is statistically significant, indicating a robust impact of governance quality on poverty reduction in this income distribution segment. Conversely, at the 90th quantile, while a negative association persists, it is not statistically significant, suggesting that the influence of governance on poverty diminishes at higher income levels. Governance is negatively related to the poverty headcount ratio (PHCR) just because good governance can reduce income imbalances and poverty within and among countries, with supporting effects provided by countries' greater political and economic stability, government effectiveness, and rule of law (Coccia, 2021).

The Competitiveness Index (CI) is examined across various quantiles in the provided table to understand its impact on poverty levels in low-income countries. The coefficients for CI across all quantiles are generally close to zero and not statistically significant. This suggests that changes in the Competitiveness Index do not have a significant impact on poverty levels across different income distributions within these countries. The result shows that except for the 60^{th} and 70^{th} quantiles, the competitiveness index is not statistically significant and has a negative effect on the poverty headcount ratio (PHCR) in all the quantiles. The positive association between the Competitiveness Index (CI) and poverty levels suggests that despite economic growth and increased competitiveness, the benefits may not be distributed equitably, potentially leaving certain segments of the population behind. Structural inequalities, policy failures, and external economic factors could contribute to this phenomenon, highlighting the

need for inclusive growth strategies and targeted social policies to effectively address poverty alongside efforts to enhance competitiveness (Kis-Katos 2015; Kalim et al., 2019).

Table 6: Quantile Regression Results of Poverty (Low-Income Countries)

DV =PHCR					
Variables	**Quantile**	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
	0.100	-80.70049	64.25242	-1.255991	0.2107
	0.200	-82.56031	40.70947	-2.028037	0.0440
	0.300	-140.4349	34.53214	-4.066789	0.0001
	0.400	-143.8798	36.26055	-3.967942	0.0001
GI	0.500	-132.7577	43.75308	-3.034248	0.0028
	0.600	-161.8730	35.68930	-4.535617	0.0000
	0.700	-177.6549	32.11948	-5.531065	0.0000
	0.800	-128.7539	35.00988	-3.677646	0.0003
	0.900	-12.85289	69.31895	-0.185417	0.8531
	0.100	-1.429235	3.312023	-0.431529	0.6666
	0.200	-0.812914	3.069079	-0.264872	0.7914
	0.300	-3.300914	1.878666	-1.757052	0.0806
	0.400	-3.418844	1.941528	-1.760904	0.0799
CI	0.500	-3.521582	1.954226	-1.802034	0.0732
	0.600	-4.658030	1.974844	-2.358682	0.0194
	0.700	-5.085970	1.934111	-2.629616	0.0093
	0.800	-0.239110	4.257023	-0.056168	0.9553
	0.900	-0.950304	3.331449	-0.285253	0.7758
	0.100	0.092050	0.621607	-0.148084	0.8824
	0.200	0.184815	0.105360	1.754133	0.0811
	0.300	0.109896	0.099142	1.108469	0.2691
	0.400	0.173346	0.156832	1.105294	0.2705
GDPD	0.500	0.254170	0.363087	0.700023	0.4848
	0.600	0.411289	0.194192	2.117948	0.0355
	0.700	0.403480	0.202259	1.994867	0.0475
	0.800	0.469613	0.479483	0.979417	0.3287
	0.900	0.396683	0.304674	1.301992	0.1945
	0.100	4.798762	1.663856	2.884121	0.0044
	0.200	4.059711	1.518393	2.673689	0.0082
	0.300	3.747627	0.657073	5.703520	0.0000
	0.400	3.382447	0.650896	5.196601	0.0000
UN	0.500	2.661797	0.670482	3.969976	0.0001
	0.600	2.556370	0.755431	3.383989	0.0009
	0.700	1.886299	0.835153	2.258629	0.0251
	0.800	1.316764	1.111349	1.184834	0.2376
	0.900	0.948119	0.900036	1.053423	0.2935
	0.100	-0.199372	0.627020	-0.317967	0.7509
	0.200	-0.303075	0.609681	-0.497103	0.6197
	0.300	-0.628583	0.443551	-1.417160	0.1581
	0.400	-0.616920	0.446140	-1.382795	0.1684
EG	0.500	-0.482799	0.459394	-1.050948	0.2947
	0.600	-0.428314	0.472781	-0.905947	0.3661
	0.700	-0.280243	0.421457	-0.664939	0.5069
	0.800	0.229662	0.482043	0.476435	0.6343
	0.900	0.038597	0.383058	0.100759	0.9199
	0.100	-0.989376	1.104776	-0.895545	0.3717
	0.200	-0.095052	0.907959	-0.104687	0.9167
	0.300	-1.015447	0.506321	-2.005539	0.0464
	0.400	-0.958328	0.552359	-1.734974	0.0844
PG	0.500	-0.880692	0.705252	-1.248762	0.2133
	0.600	-1.197153	0.669395	-1.788410	0.0753
	0.700	-1.482020	0.721988	-2.052693	0.0415
	0.800	-1.105007	1.020210	-1.083117	0.2802
	0.900	-0.478428	1.080293	-0.442868	0.6584
SG	0.100	-1.870406	0.393424	-4.754174	0.0000

	0.200	-1.910494	0.502823	-3.799533	0.0002
	0.300	-1.638028	0.475370	-3.445797	0.0007
	0.400	-1.800458	0.522124	-3.448333	0.0007
	0.500	-2.000154	0.605981	-3.300689	0.0012
	0.600	-2.135316	0.796018	-2.682496	0.0080
	0.700	-2.434036	1.096719	-2.219379	0.0277
	0.800	-2.466285	1.388925	-1.775679	0.0774
	0.900	-1.721313	0.906313	-1.899249	0.0591
	0.100	-1.080132	1.424721	0.758136	0.4493
	0.200	-1.535589	1.188919	-1.291584	0.1981
	0.300	-1.801690	0.793484	-2.270607	0.0243
	0.400	-1.910663	0.732899	-2.606993	0.0099
EG*GI	0.500	-1.624680	0.749344	-2.168138	0.0314
	0.600	-1.712450	0.763054	-2.244207	0.0260
	0.700	-1.685350	0.685519	-2.458502	0.0149
	0.800	-0.722799	0.787730	-0.917572	0.3600
	0.900	-0.514582	0.527756	-0.975037	0.3308
	0.100	-0.110481	1.183759	-0.093331	0.9257
	0.200	-0.576457	0.985960	-0.584666	0.5595
	0.300	-0.465022	0.586290	-0.793161	0.4287
	0.400	-0.476420	0.657248	-0.724870	0.4694
PG*GI	0.500	-0.300575	0.882134	-0.340736	0.7337
	0.600	-0.641629	0.820798	-0.781713	0.4354
	0.700	-0.902421	0.918409	-0.982592	0.3271
	0.800	-0.268872	1.141081	-0.235629	0.8140
	0.900	-0.956951	1.388042	-0.689425	0.4914
	0.100	0.429199	1.028290	0.417391	0.6769
	0.200	-0.334242	0.972559	-0.343672	0.7315
	0.300	0.016823	0.829407	0.020284	0.9838
	0.400	0.022674	0.875303	0.025904	0.9794
SG*GI	0.500	-0.395146	0.983015	-0.401973	0.6882
	0.600	-0.736215	1.137851	-0.647022	0.5184
	0.700	-0.792345	1.373462	-0.576896	0.5647
	0.800	-1.855218	1.422573	-1.304129	0.1938
	0.900	-0.982120	1.123435	-0.874212	0.3831
	0.100	206.3444	49.73290	4.149051	0.0001
	0.200	148.8453	34.73481	4.285191	0.0000
	0.300	202.9031	25.35024	8.003990	0.0000
	0.400	203.9276	27.66617	7.371008	0.0000
C	0.500	198.4965	35.35785	5.613929	0.0000
	0.600	214.3174	28.95863	7.400813	0.0000
	0.700	233.1824	28.26217	8.250690	0.0000
	0.800	207.3236	37.31122	5.556601	0.0000
	0.900	150.5132	44.04646	3.417146	0.0008

The quantile regression result shows the GDP deflator is statistically insignificant except for the 60th and 70th quantiles and has a positive effect on the poverty headcount ratio (PHCR) in all the quantiles. The positive association between the GDP deflator and poverty could be attributed to the fact that a higher inflation rate (reflected in the GDP deflator) may lead to increased costs of living and reduced purchasing power, particularly for low-income individuals, thereby exacerbating poverty levels. Inflation can erode the value of fixed incomes, making it harder for individuals to meet basic needs and lift themselves out of poverty (Chani et.al (2011; Akhter et al, 2010).

Across all quantiles, the unemployment rate is statistically significant except in the 80th and 90th quantiles. The unemployment rate has a positive effect on the poverty headcount ratio (PHCR) in all the quantiles. The positive association between the unemployment rate and poverty can be explained by the fact that unemployment leads to loss of income, reducing individuals' ability to afford necessities and increasing their reliance on social assistance programs, thereby exacerbating poverty levels within a population. Unemployment can lead to social exclusion and psychological distress, further hindering individuals' ability to escape poverty (Saunder, 2002).

Coefficients for economic globalization (EG) vary across quantiles. Generally, negative coefficients suggest that higher Economic Globalization Index values are associated with lower poverty levels, though not always statistically significant. This implies that the relationship between economic globalization and poverty may vary

at different points in the income distribution. There is an inverse relation between poverty headcount ratio (PHCR) and economic globalization, because of two reasons: i) When nations open up to international trade, people tend to expand more rapidly and have higher living standards. The poor will reap the benefits of higher growth and ii) If globalization raises the price of goods made by the poor, such as farm products, textiles, and clothing, poverty is most likely to decrease (Harrison, 2007).

Social globalization, as measured by the Social Globalization Index (SG), reflects the degree of interconnectedness and integration of societies across borders through various social factors such as cultural exchange, migration, and social interactions. At the 10th quantile, a higher SG coefficient implies that countries with more extensive social globalization tend to have lower poverty rates, potentially due to increased cultural exchange and access to diverse resources. However, this association may not always hold true, as evidenced by the non-significant coefficient at this quantile. Moving to the 20th quantile, a negative and statistically significant coefficient suggests that higher social globalization is associated with lower poverty levels, potentially indicating the positive impact of increased social interactions and cultural exchange on poverty reduction efforts. This trend continues across subsequent quantiles, with varying degrees of statistical significance, suggesting that social globalization plays a crucial role in shaping poverty dynamics, fostering social inclusivity, and promoting shared prosperity across different income levels within low-income countries (Osabohien, 2020).

Political globalization, as measured by the Political Globalization Index (PG), assesses the degree of political interconnectedness and cooperation between countries. At the 10th quantile, a positive coefficient suggests that higher political globalization is associated with a slight increase in poverty, although this association is not statistically significant. However, at the 20th quantile, a negative coefficient indicates that higher political globalization is linked to a decrease in poverty levels, though not significantly. Moving to the 30th quantile, the negative and statistically significant coefficient implies that increased political globalization is associated with reduced poverty. Yet, at higher quantiles (40th to 90th), the coefficients become nonsignificant, suggesting that the impact of political globalization on poverty diminishes as we move towards higher income levels. This trend may indicate that political globalization initially fosters economic development and poverty reduction through improved governance structures and international cooperation, but its effect weakens as countries reach higher levels of development and income (Siddiqa et al., 2018).

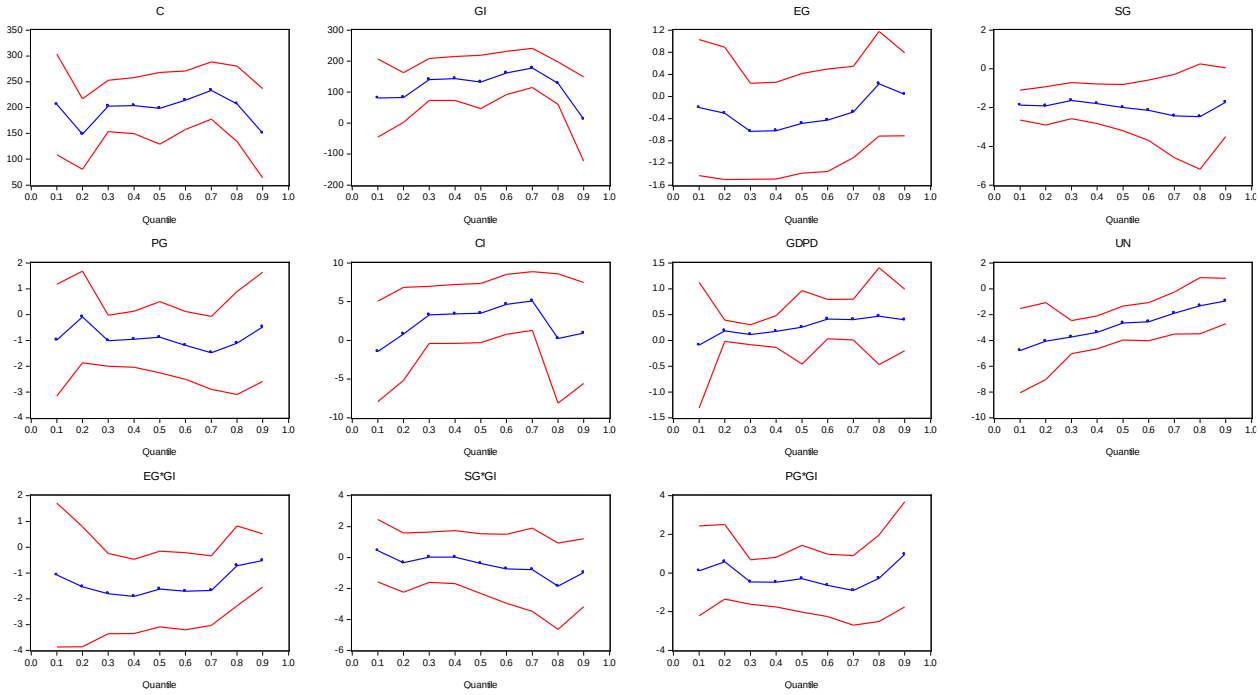
The interaction term (EG*GI) represents the combined effect of Economic Globalization (EG) and Governance Index (GI) on poverty levels. Quantile-wise analysis reveals insights into how this interaction varies across different income distribution points. At lower quantiles, a negative coefficient suggests that in countries with both higher economic globalization and better governance, poverty levels tend to be lower than expected. This could indicate that effective governance systems complement economic globalization efforts, leading to more equitable distribution of benefits and reduced poverty. Conversely, at higher quantiles, the coefficient becomes less negative or even positive, implying that the beneficial effects of economic globalization may diminish or be outweighed by other factors, such as income inequality or insufficient social safety nets.

The interaction term PG*GI represents the combined effect of Political Globalization (PG) and Governance Index (GI) on poverty levels, with the coefficient quantifying how their joint impact varies across different quantiles. At lower quantiles, where poverty levels may be higher, a negative coefficient suggests that a higher interaction between political globalization and governance quality is associated with a decrease in poverty. This implies that in contexts where political globalization, such as increased diplomatic relations or international agreements, aligns with better governance practices, poverty alleviation efforts may be more effective. Conversely, at higher quantiles, the interaction effect may diminish or become positive, indicating that the joint impact of political globalization and governance quality may not have as significant an effect on poverty reduction. This could imply that other factors or interventions may become more influential in reducing poverty at higher income levels.

The interaction term SG*GI represents the combined effect of Social Globalization (SG) and Governance Index (GI) on poverty levels in low-income countries, quantile-wise. At each quantile, this interaction term captures how the relationship between social globalization and poverty varies depending on the level of governance quality. For instance, at lower quantiles, where poverty rates are typically higher, a positive coefficient for SG*GI would suggest that the impact of social globalization on poverty levels is amplified in countries with better governance. This could imply that in countries with stronger governance structures, the benefits of social globalization, such as increased cultural exchange and social integration, are more effectively translated into poverty reduction initiatives or social welfare programs. Conversely, at higher quantiles, the interaction effect might not be as significant, indicating that the relationship between social globalization, governance quality, and poverty levels may be less pronounced in countries with lower levels of poverty.

Figure 1 depicts quantile coefficients for low-income countries, with the red line representing bands and the blue line representing quantile process coefficients. The graph shows that all of the quantile coefficients are within the band.

Figure 1: Quantile Coefficients of Low-Income Countries



According to Table 7, the Wald test, the slope equality test's chi-square statistic value is 166.54, which is statistically significant. So, at 5% significance, we reject the slope equality hypothesis, implying that slope equality varies across quantile levels.

Table 7: Slope Equality Test Results of Low-Income Countries

Specification: PHCR C GI CI GDPD UN EG PG SG EG*GI PG*GI SG*GI
Estimated equation quantile tau = 0.5
Number of test quantiles: 10

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Wald Test	166.5480	80	0.0000

In Table 8, the Wald test the Chai square statistic value of the symmetric quantiles test is 48.12 which is not statistically significant.

Table 8: Symmetric Quantiles Test Results of Low-Income Countries

Specification: PHCR C GI CI GDPD UN EG PG SG EG*GI PG*GI SG*GI
Estimated equation quantile tau = 0.5
Number of test quantiles: 10

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Wald Test	48.12192	44	0.3096

Table 9 shows the quantile regression results of poverty in low-income countries, the results in lower-middle-income countries are similar. The Governance Index, Competitiveness Index, Economic Globalization, Political Globalization, and Social Globalization, all have a negative impact on PHCR in all quantiles, whereas the GDP deflator and unemployment rate both have a positive impact on PHCR in all quantiles. EG*GI, PG*GI, and SG*GI, also have a negative impact on PHCR in all quantiles.

Table 9: Quantile Regression Results of Poverty (Lower Middle-Income Countries)

DV =PHCR					
Variables	**Quantile**	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
GI	0.100	-10.46699	7.147405	-1.464446	0.1438
	0.200	-20.08495	7.275468	-2.760641	0.0060
	0.300	-29.90862	7.973060	-3.751209	0.0002
	0.400	-33.41607	9.573998	-3.490294	0.0005
	0.500	-49.32211	13.15576	-3.749088	0.0002
	0.600	-68.27988	9.849989	-6.931975	0.0000
	0.700	-69.07186	11.47143	-6.021205	0.0000
	0.800	-81.33168	17.33104	-4.692835	0.0000
	0.900	-96.53759	13.83846	-6.976035	0.0000

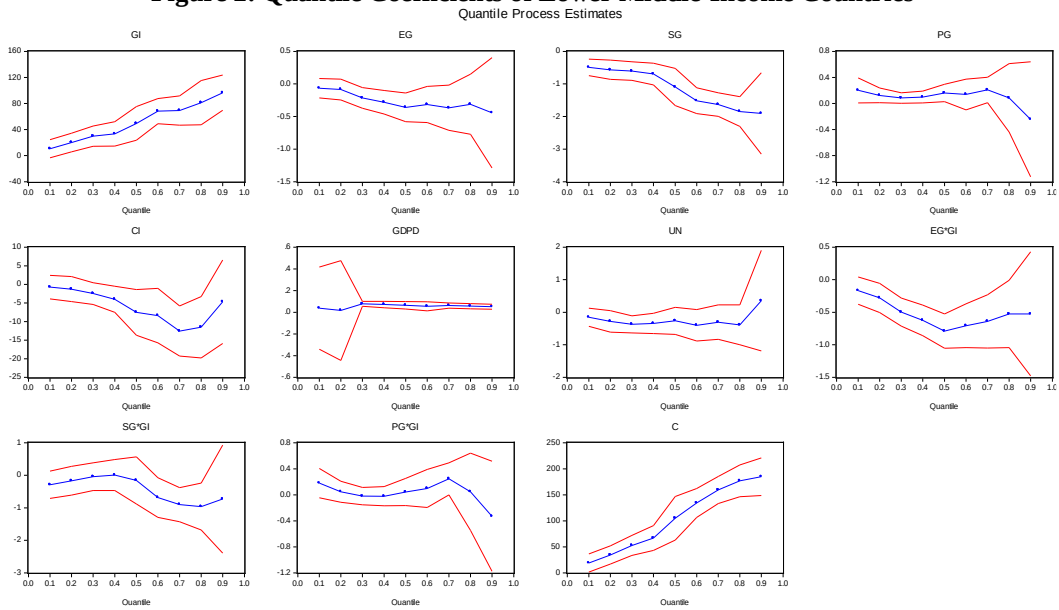
	0.100	-0.738584	1.618409	-0.456364	0.6483
	0.200	-1.284276	1.721353	-0.746085	0.4560
	0.300	-2.495332	1.477244	-1.689180	0.0919
	0.400	-4.026435	1.797241	-2.240342	0.0256
CI	0.500	-7.545918	3.140752	-2.402583	0.0167
	0.600	-8.426758	3.748278	-2.248168	0.0250
	0.700	-12.57672	3.443983	-3.651796	0.0003
	0.800	-11.55446	4.214311	-2.741721	0.0064
	0.900	-4.700481	5.735998	-0.819470	0.4130
	0.100	-0.036526	0.193390	-0.188874	0.8503
	0.200	0.015772	0.234638	0.067218	0.9464
	0.300	0.077454	0.011892	6.512905	0.0000
	0.400	0.070702	0.014926	4.736882	0.0000
GDPD	0.500	0.064405	0.017397	3.702057	0.0002
	0.600	0.054129	0.021147	2.559645	0.0108
	0.700	0.061157	0.012328	4.960860	0.0000
	0.800	0.055254	0.011698	4.723451	0.0000
	0.900	0.051043	0.011498	4.439382	0.0000
	0.100	0.155026	0.141867	1.092756	0.2751
	0.200	0.282514	0.168252	1.679105	0.0938
	0.300	0.373793	0.135069	2.767420	0.0059
	0.400	0.344927	0.158031	2.182650	0.0296
UN	0.500	0.266394	0.211321	1.260613	0.2081
	0.600	0.404183	0.247015	1.636272	0.1025
	0.700	0.307110	0.270516	1.135276	0.2569
	0.800	0.388081	0.313588	1.237550	0.2165
	0.900	0.353926	0.788231	0.449013	0.6536
	0.100	-0.065966	0.075621	-0.872325	0.3835
	0.200	-0.086147	0.081278	-1.059906	0.2898
	0.300	-0.214978	0.080173	-2.681424	0.0076
	0.400	-0.281479	0.092575	-3.040545	0.0025
EG	0.500	-0.359748	0.112126	-3.208429	0.0014
	0.600	-0.315635	0.141573	-2.229482	0.0263
	0.700	-0.365752	0.176725	-2.069607	0.0391
	0.800	0.312761	0.235287	1.329276	0.1844
	0.900	0.443895	0.431559	1.028583	0.3042
	0.100	-0.201919	0.097586	-2.069150	0.0391
	0.200	-0.124855	0.057387	-2.175666	0.0301
	0.300	-0.083812	0.041474	-2.020806	0.0439
	0.400	-0.099171	0.046272	-2.143211	0.0326
PG	0.500	-0.161131	0.067705	-2.379897	0.0177
	0.600	-0.138138	0.120120	-1.150001	0.2508
	0.700	-0.208376	0.099234	-2.099849	0.0363
	0.800	-0.085955	0.267323	-0.321541	0.7480
	0.900	-0.243397	0.450309	-0.540511	0.5891
	0.100	-0.490149	0.130120	-3.766904	0.0002
	0.200	-0.565300	0.151110	-3.740982	0.0002
	0.300	-0.607342	0.145004	-4.188440	0.0000
	0.400	-0.696852	0.168678	-4.131259	0.0000
SG	0.500	-1.093258	0.290662	-3.761273	0.0002
	0.600	-1.515434	0.201600	-7.517042	0.0000
	0.700	-1.632366	0.184048	-8.869264	0.0000
	0.800	-1.849391	0.232459	-7.955768	0.0000
	0.900	-1.903868	0.637691	-2.985567	0.0030
	0.100	-0.168937	0.106762	-1.582369	0.1143
	0.200	-0.280022	0.114204	-2.451934	0.0146
	0.300	-0.498293	0.109491	-4.550985	0.0000
EG*GI	0.400	-0.624214	0.119834	-5.209002	0.0000
	0.500	-0.791074	0.134688	-5.873385	0.0000
	0.600	-0.708770	0.171319	-4.137139	0.0000

	0.700	-0.641818	0.209430	-3.064597	0.0023
	0.800	-0.526768	0.264046	-1.994983	0.0466
	0.900	-0.525414	0.486648	-1.079660	0.2809
	0.100	-0.179394	0.114861	-1.561840	0.1190
	0.200	-0.046736	0.082255	-0.568178	0.5702
	0.300	-0.021143	0.068007	-0.310889	0.7560
	0.400	-0.022249	0.074556	-0.298416	0.7655
PG*GI	0.500	-0.043514	0.107221	-0.405833	0.6851
	0.600	-0.097438	0.149106	-0.653480	0.5138
	0.700	-0.245557	0.125539	-1.956018	0.0511
	0.800	-0.045345	0.303309	-0.149502	0.8812
	0.900	-0.331334	0.431792	-0.767346	0.4433
	0.100	0.294199	0.213714	1.376600	0.1693
	0.200	-0.170233	0.224637	-0.757815	0.4490
	0.300	0.045038	0.217354	0.207209	0.8359
	0.400	0.008329	0.243292	0.034235	0.9727
SG*GI	0.500	-0.156854	0.368828	-0.425276	0.6708
	0.600	-0.684891	0.311434	-2.199151	0.0284
	0.700	-0.904089	0.267444	-3.380485	0.0008
	0.800	-0.962884	0.367569	-2.619604	0.0091
	0.900	-0.732573	0.846033	-0.865891	0.3870
	0.100	18.85211	8.826822	2.135776	0.0332
	0.200	34.20939	8.896981	3.845056	0.0001
	0.300	52.65764	9.796348	5.375232	0.0000
	0.400	66.87578	12.15105	5.503702	0.0000
C	0.500	104.7897	21.32105	4.914846	0.0000
	0.600	134.4438	14.19205	9.473173	0.0000
	0.700	159.2247	13.26752	12.00109	0.0000
	0.800	176.7784	15.57009	11.35372	0.0000
	0.900	184.6365	18.38286	10.04395	0.0000

The Governance Index, Social Globalization, and GDP deflator EG*GI are statistically significant, and economic globalization, political globalization, competitiveness index, unemployment rate, SG*GI, and PG*GI are not statistically significant.

Figure 2 shows quantile coefficients for lower-middle-income countries, with the red line indicating bands and the blue line showing quantile process coefficients. The figure of lower-middle-income countries, like the figure of low-income countries, reveals that all of the quantile coefficients are within the band.

Figure 2: Quantile Coefficients of Lower Middle-Income Countries



According to Table 10, the Wald test, the slope equality test's chi-square statistic value is 385.26, which is statistically significant. So, at 5% significance, we reject the slope equality hypothesis, implying that slope equality varies across quantile levels.

Table 10: Slope Equality Test Results of Lower Middle-Income Countries

Specification: PHCR C GI CI GDPD UN EG PG SG EG*GI PG*GI SG*GI
Estimated equation quantile tau = 0.5
Number of test quantiles: 10

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Wald Test	385.2608	80	0.0000

In Table 11, the Wald test the Chai square statistic value of the symmetric quantiles test is73.45 which is statistically significant.

Table 11: Symmetric Quantiles Test Results of Lower Middle-Income Countries

Specification: PHCR C GI CI GDPD UN EG PG SG EG*GI PG*GI SG*GI
Estimated equation quantile tau = 0.5
Number of test quantiles: 10

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Wald Test	73.45129	44	0.0035

Table 12 displays the quantile regression results of poverty in upper-middle-income countries. Likewise, in low-income countries and lower-middle-income countries, the results in upper-middle-income countries are similar. The Governance Index, Competitiveness Index, Economic Globalization, Political Globalization, and Social Globalization, all have a negative impact on PHCR in all quantiles, whereas the GDP deflator and unemployment rate both have a positive impact on PHCR in all quantiles. EG*GI, PG*GI, and SG*GI also have a negative impact on PHCR in all quantiles. Here, the Governance Index, Social Globalization, GDP deflator EG*GI, unemployment rates, GI, and PG*GI are statistically significant, and economic globalization, political globalization, and competitiveness index are not statistically significant.

Table 12: Quantile Regression Results of Poverty (Upper Middle-Income Countries)

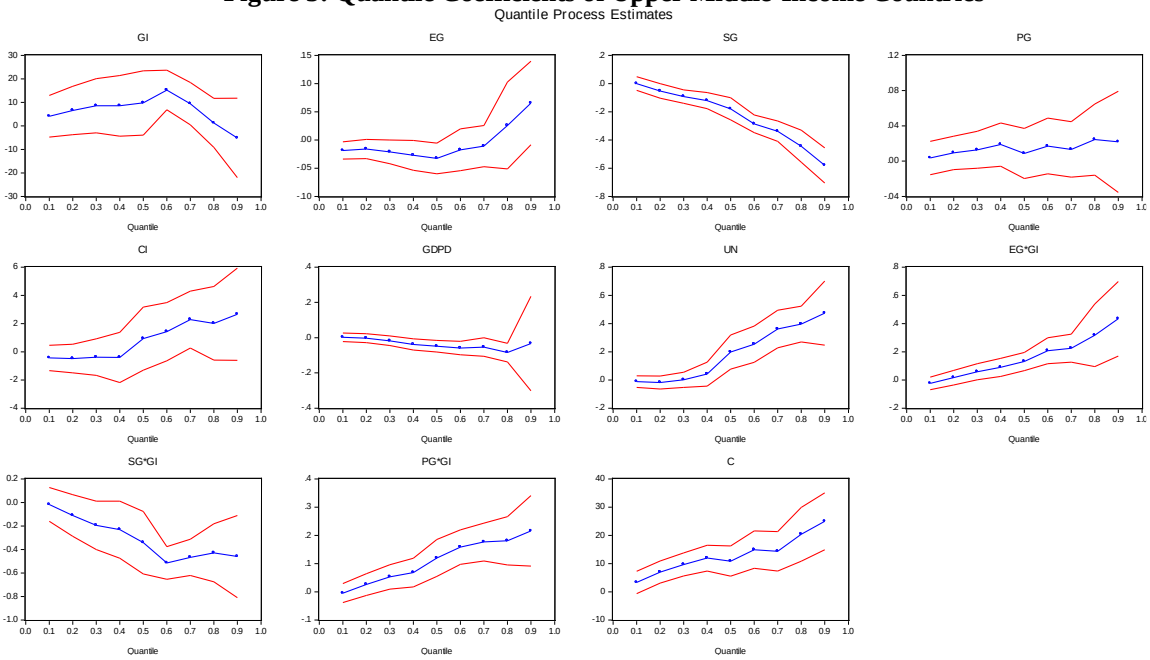
DV =PHCR					
Variables	**Quantile**	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
GI	0.100	-4.024467	4.529160	-0.888568	0.3748
	0.200	-6.485814	5.249103	-1.235604	0.2173
	0.300	-8.539160	5.863597	-1.456301	0.1461
	0.400	-8.476228	6.599006	-1.284470	0.1997
	0.500	-9.724514	6.983742	-1.392450	0.1645
	0.600	-15.23260	4.311760	-3.532804	0.0005
	0.700	-9.402966	4.592377	-2.047516	0.0412
	0.800	-1.203878	5.315684	-0.226477	0.8209
	0.900	-5.178271	8.627527	-0.600203	0.5487
CI	0.100	-0.438798	0.457203	-0.959744	0.3378
	0.200	-0.490346	0.517836	-0.946915	0.3442
	0.300	-0.382104	0.657571	-0.581083	0.5615
	0.400	-0.406133	0.907037	-0.447758	0.6546
	0.500	-0.925874	1.142453	-0.810427	0.4182
	0.600	-1.418700	1.053848	-1.346209	0.1790
	0.700	-2.273301	1.027389	-2.212698	0.0275
	0.800	-2.015099	1.329967	-1.515149	0.1305
	0.900	-2.659345	1.664701	-1.597491	0.1109
GDPD	0.100	-0.001446	0.012270	-0.117873	0.9062
	0.200	0.003704	0.012966	0.285644	0.7753
	0.300	0.018137	0.013843	1.310184	0.1909
	0.400	0.039029	0.016192	2.410360	0.0164
	0.500	0.048945	0.016827	2.908727	0.0038
	0.600	0.058996	0.019621	3.006695	0.0028
	0.700	0.053682	0.026750	2.006812	0.0454
	0.800	0.084949	0.026668	3.185470	0.0016
	0.900	0.033339	0.136681	0.243918	0.8074
UN	0.100	0.012029	0.021363	0.563079	0.5737
	0.200	0.018046	0.023383	0.771750	0.4407
	0.300	0.000064	0.027516	0.002320	0.9982
	0.400	0.041565	0.043579	0.953782	0.3408
	0.500	0.197752	0.061407	3.220379	0.0014
	0.600	0.253443	0.065795	3.852042	0.0001
	0.700	0.360977	0.067795	5.324575	0.0000

	0.800	0.396104	0.064894	6.103872	0.0000
	0.900	0.473684	0.115543	4.099629	0.0000
	0.100	-0.018716	0.007847	-2.384948	0.0175
	0.200	-0.015993	0.008751	-1.827600	0.0683
	0.300	-0.021310	0.010742	-1.983824	0.0479
	0.400	-0.027285	0.013473	-2.025179	0.0435
EG	0.500	-0.032932	0.013956	-2.359679	0.0188
	0.600	-0.017490	0.018992	-0.920897	0.3576
	0.700	-0.011014	0.018623	-0.591448	0.5545
	0.800	0.025599	0.039303	0.651316	0.5152
	0.900	0.065476	0.037823	1.731097	0.0842
	0.100	-0.003513	0.009674	-0.363076	0.7167
	0.200	-0.009346	0.009630	-0.970510	0.3324
	0.300	-0.012780	0.010729	-1.191154	0.2343
	0.400	-0.018689	0.012536	-1.490919	0.1368
PG	0.500	-0.008751	0.014509	-0.603124	0.5468
	0.600	-0.017109	0.016124	-1.061068	0.2893
	0.700	-0.013251	0.016060	-0.825133	0.4098
	0.800	-0.024343	0.020612	-1.181043	0.2383
	0.900	-0.021873	0.029300	-0.746532	0.4558
	0.100	-0.000000	0.024954	-0.000023	1.0000
	0.200	-0.052987	0.026389	-2.007910	0.0453
	0.300	-0.092348	0.024158	-3.822716	0.0002
	0.400	-0.120801	0.029077	-4.154543	0.0000
SG	0.500	-0.179790	0.039926	-4.503116	0.0000
	0.600	-0.285994	0.032173	-8.889310	0.0000
	0.700	-0.338404	0.036867	-9.179032	0.0000
	0.800	-0.444639	0.057794	-7.693456	0.0000
	0.900	-0.580854	0.063553	-9.139743	0.0000
	0.100	-0.024784	0.022882	-1.083152	0.2794
	0.200	-0.016393	0.026193	-0.625875	0.5317
	0.300	-0.057763	0.029310	-1.970742	0.0494
	0.400	-0.089000	0.032560	-2.733408	0.0065
EG*GI	0.500	-0.130815	0.032853	-3.981815	0.0001
	0.600	-0.206886	0.046942	-4.407285	0.0000
	0.700	-0.225189	0.050696	-4.441966	0.0000
	0.800	-0.317008	0.113478	-2.793572	0.0055
	0.900	-0.433334	0.134638	-3.218520	0.0014
	0.100	-0.005003	0.017286	-0.289419	0.7724
	0.200	-0.025534	0.019673	-1.297931	0.1950
	0.300	-0.052488	0.022018	-2.383870	0.0176
	0.400	-0.067780	0.025849	-2.622163	0.0091
PG*GI	0.500	-0.119782	0.033372	-3.589275	0.0004
	0.600	-0.158232	0.031276	-5.059276	0.0000
	0.700	-0.176207	0.034236	-5.146906	0.0000
	0.800	-0.180477	0.043885	-4.112533	0.0000
	0.900	-0.215779	0.063768	-3.383802	0.0008
	0.100	0.017568	0.073454	0.239172	0.8111
	0.200	-0.111233	0.090332	-1.231376	0.2189
	0.300	0.194666	0.104764	1.858131	0.0639
	0.400	0.232325	0.124051	1.872816	0.0618
SG*GI	0.500	-0.342705	0.135464	-2.529868	0.0118
	0.600	-0.514686	0.070833	-7.266160	0.0000
	0.700	-0.467549	0.078972	-5.920464	0.0000
	0.800	-0.428732	0.125638	-3.412436	0.0007
	0.900	-0.460874	0.178295	-2.584889	0.0101
	0.100	3.289041	2.039029	1.613043	0.1075
C	0.200	6.973919	1.989833	3.504776	0.0005
	0.300	9.676406	2.079067	4.654206	0.0000
	0.400	11.92319	2.327444	5.122868	0.0000

	0.500	10.86365	2.718803	3.995748	0.0001
	0.600	14.91529	3.381084	4.411393	0.0000
	0.700	14.32294	3.559744	4.023587	0.0001
	0.800	20.36204	4.861406	4.188509	0.0000
	0.900	24.98644	5.146244	4.855278	0.0000

In Figure 3, the quantile coefficients of upper-middle-income countries, the red line indicates bands and the blue line shows quantile process coefficients. Figure 3 reveals that all of the quantile coefficients are within the band.

Figure 3: Quantile Coefficients of Upper Middle-Income Countries



According to Table 13, Wald's test, the chi-square statistic value of the slope equality test is 510.22, which is statistically significant. So, reject the slope equality hypothesis at a 5% significance level, which means the slope equality is different across quantile levels.

Table 13: Slope Equality Test Results of Upper Middle-Income Countries

Specification: PHCR C GI CI GDPD UN EG PG SG EG*GI PG*GI SG*GI
Estimated equation quantile tau = 0.5
Number of test quantiles: 10

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Wald Test	510.2254	80	0.0000

In Table 14, the Wald test Chai square statistic value of the symmetric quantiles test is 97.71058 which is statistically significant.

Table 14: Symmetric Quantiles Test Results of Upper Middle-Income Countries

Specification: PHCR C GI CI GDPD UN EG PG SG EG*GI PG*GI SG*GI
Estimated equation quantile tau = 0.5
Number of test quantiles: 10

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Wald Test	97.71058	44	0.0000

Table 15 displays the quantile regression results of poverty in developing countries. The quantile regression results of poverty in low-income countries, lower-middle-income countries, and upper-middle-income countries and in all developing countries are similar. The Governance Index, Competitiveness Index, Economic Globalization, Political Globalization and Social Globalization all have a negative impact on PHCR in all quantiles, whereas the GDP deflator and unemployment rate both have a positive impact on PHCR in all quantiles. EG*GI, PG*GI, and SG*GI also have a negative impact on PHCR in all quantiles. Here, social globalization, political globalization, GDP deflator, unemployment rates, EG*GI, and SG*GI are statistically significant, and competitiveness index, economic globalization, and PG*GI are not statistically significant.

Table 15: Quantile Regression Results of Poverty in Developing Countries

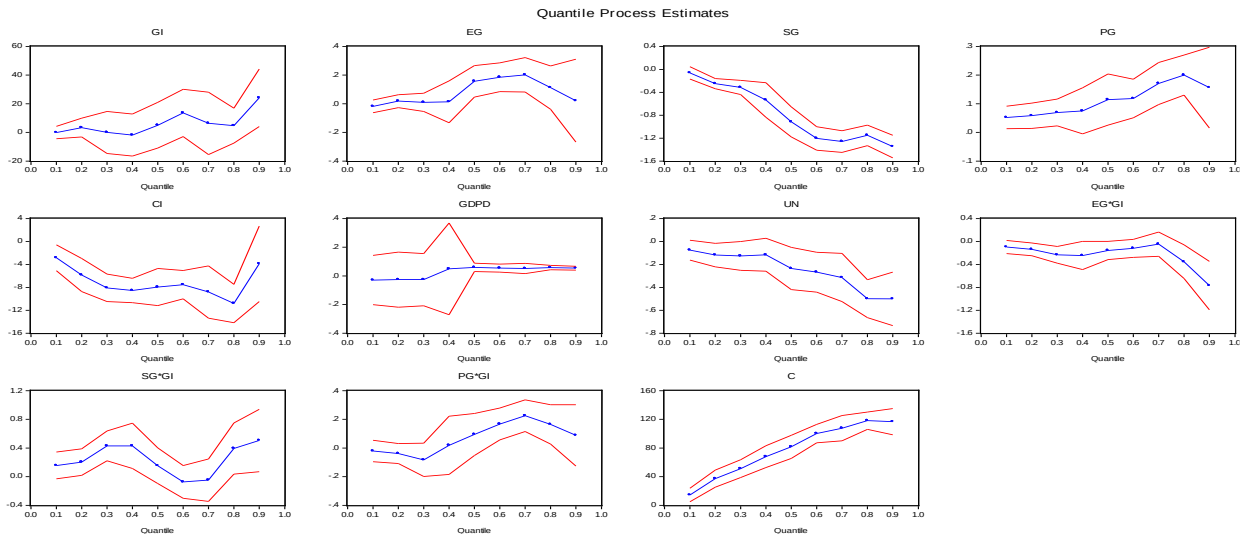
DV=PHCR					
Variables	**Quantile**	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
GI	0.100	-0.140312	2.218924	-0.063234	0.9496

	0.200	-3.341909	3.338928	-1.000893	0.3171
	0.300	-0.033547	7.488183	-0.004480	0.9964
	0.400	-1.871704	7.498852	-0.249599	0.8029
	0.500	-4.980262	8.129543	-0.612613	0.5403
	0.600	-13.56678	8.410791	-1.613020	0.1070
	0.700	-6.299358	11.10746	-0.567129	0.5707
	0.800	-4.697762	6.200488	-0.757644	0.4488
	0.900	-24.13749	10.25245	-2.354314	0.0187
	0.100	-2.842214	1.153050	-2.464952	0.0139
	0.200	-5.858159	1.476325	-3.968070	0.0001
	0.300	-8.097182	1.218918	-6.642925	0.0000
	0.400	-8.547721	1.085709	-7.872942	0.0000
CI	0.500	-7.942396	1.651699	-4.808622	0.0000
	0.600	-7.527859	1.263637	-5.957296	0.0000
	0.700	-8.820788	2.326990	-3.790643	0.0002
	0.800	-10.82489	1.703467	-6.354622	0.0000
	0.900	-3.904577	3.363876	-1.160738	0.2460
	0.100	-0.029411	0.087819	-0.334906	0.7378
	0.200	0.026252	0.098262	0.267161	0.7894
	0.300	0.026335	0.092847	0.283633	0.7767
	0.400	0.048816	0.163244	0.299036	0.7650
GDPD	0.500	0.058701	0.014949	3.926846	0.0001
	0.600	0.053969	0.014541	3.711503	0.0002
	0.700	0.051276	0.017957	2.855414	0.0044
	0.800	0.057784	0.008025	7.200456	0.0000
	0.900	0.053830	0.006766	7.955458	0.0000
	0.100	0.076080	0.044464	1.711037	0.0874
	0.200	0.118919	0.051981	2.287750	0.0223
	0.300	0.126399	0.064050	1.973458	0.0487
	0.400	0.116062	0.073495	1.579181	0.1146
UN	0.500	0.235214	0.094020	2.501754	0.0125
	0.600	0.268044	0.088423	3.031388	0.0025
	0.700	0.314905	0.107319	2.934276	0.0034
	0.800	0.499077	0.084488	5.907111	0.0000
	0.900	0.501032	0.119033	4.209205	0.0000
	0.100	-0.018329	0.022412	-0.817852	0.4136
	0.200	-0.017942	0.023204	-0.773253	0.4395
	0.300	-0.009268	0.032251	-0.287381	0.7739
	0.400	-0.013683	0.074533	-0.183577	0.8544
EG	0.500	-0.156299	0.056213	-2.780490	0.0055
	0.600	-0.184824	0.051404	-3.595502	0.0003
	0.700	-0.201579	0.061283	-3.289294	0.0010
	0.800	0.112446	0.077302	1.454633	0.1461
	0.900	0.021131	0.147322	0.143433	0.8860
	0.100	-0.051906	0.020162	-2.574439	0.0102
	0.200	-0.058148	0.022401	-2.595763	0.0096
	0.300	-0.069505	0.023715	-2.930808	0.0035
	0.400	-0.075195	0.040846	-1.840942	0.0659
PG	0.500	-0.114444	0.045568	-2.511503	0.0122
	0.600	-0.118014	0.034453	-3.425393	0.0006
	0.700	-0.170589	0.037465	-4.553342	0.0000
	0.800	-0.200034	0.035511	-5.633066	0.0000
	0.900	-0.156410	0.071964	-2.173428	0.0300
	0.100	-0.061044	0.054965	-1.110587	0.2670
	0.200	-0.248245	0.045249	-5.486250	0.0000
	0.300	-0.316063	0.063429	-4.982926	0.0000
SG	0.400	-0.534427	0.154364	-3.462114	0.0006
	0.500	-0.916568	0.133280	-6.877030	0.0000
	0.600	-1.206302	0.105038	-11.48439	0.0000
	0.700	-1.260145	0.096479	-13.06141	0.0000

	0.800	-1.151703	0.091186	-12.63021	0.0000
	0.900	-1.347211	0.100255	-13.43786	0.0000
	0.100	-0.096683	0.058674	-1.647804	0.0997
	0.200	-0.139230	0.056780	-2.452093	0.0144
	0.300	-0.234423	0.074687	-3.138724	0.0017
	0.400	-0.244887	0.125252	-1.955162	0.0508
EG*GI	0.500	-0.156500	0.081041	-1.931127	0.0537
	0.600	-0.120529	0.079547	-1.515197	0.1300
	0.700	-0.047261	0.108187	-0.436849	0.6623
	0.800	-0.352667	0.149570	-2.357871	0.0186
	0.900	-0.768922	0.215635	-3.565848	0.0004
	0.100	-0.020733	0.038256	-0.541959	0.5880
	0.200	-0.038477	0.035743	-1.076494	0.2820
	0.300	-0.082844	0.059231	-1.398649	0.1622
	0.400	-0.018317	0.103819	-0.176434	0.8600
PG*GI	0.500	-0.094050	0.074797	-1.257404	0.2089
	0.600	-0.167561	0.056507	-2.965296	0.0031
	0.700	-0.225435	0.056381	-3.998390	0.0001
	0.800	-0.164360	0.069923	-2.350575	0.0189
	0.900	-0.087820	0.109357	-0.803062	0.4221
	0.100	0.155736	0.095276	1.634585	0.1024
	0.200	-0.202491	0.094675	-2.138816	0.0327
	0.300	0.429562	0.105822	4.059293	0.0001
	0.400	0.430289	0.161845	2.658648	0.0080
SG*GI	0.500	-0.152920	0.126932	-1.204741	0.2286
	0.600	-0.074006	0.116242	-0.636657	0.5245
	0.700	-0.048933	0.150909	-0.324258	0.7458
	0.800	-0.392887	0.182372	-2.154322	0.0314
	0.900	-0.504494	0.222089	-2.271581	0.0233
	0.100	14.38055	4.773913	3.012319	0.0027
	0.200	37.12971	6.110656	6.076222	0.0000
	0.300	51.25973	6.349105	8.073537	0.0000
	0.400	67.86717	7.774288	8.729697	0.0000
C	0.500	81.55103	8.256162	9.877596	0.0000
	0.600	100.1526	6.554795	15.27928	0.0000
	0.700	107.6718	8.972605	12.00006	0.0000
	0.800	118.2003	6.145630	19.23323	0.0000
	0.900	116.7104	9.297504	12.55287	0.0000

Quantile regression coefficients for developing nations are depicted in Figure 4. The red line represents bands, and the blue line represents quantile process coefficients. The graph of low- and lower-middle-income nations, like the Figure of all developing nations, shows that all quantile regression coefficients are within the band.

Figure 4: Quantile Coefficients of Developing Countries



According to Wald's test, the chi-square statistic value of the slope equality test is 1243.81, which is statistically significant shown in Table 16. So, reject the slope equality hypothesis at a 5% significance level, which means the slope equality is different across quantile levels.

Table 16: Slope Equality Test Results of Developing Countries

Specification: PHCR C GI CI GDPD UN EG PG SG EG*GI PG*GI SG*GI Estimated equation quantile tau = 0.5 Number of test quantiles: 10			
Test Summary	**Chi-Sq. Statistic**	**Chi-Sq. d.f.**	**Prob.**
Wald Test	1243.811	80	0.0000

In Table 17, according to Wald test the Chai square statistic value of the symmetric quantiles test is 190.79 which is statistically significant.

Table 17: Symmetric Quantiles Test Results of Developing Countries

Specification: PHCR C GI CI GDPD UN EG PG SG EG*GI PG*GI SG*GI Estimated equation quantile tau = 0.5 Number of test quantiles: 10			
Test Summary	**Chi-Sq. Statistic**	**Chi-Sq. d.f.**	**Prob.**
Wald Test	190.7990	44	0.0000

5. Conclusions and Policy Recommendations

This study examines the association among globalization, governance, and poverty nexus in 77 developing countries by using the quantile regression technique. According to the results, globalization and governance have a negative relationship with poverty. Furthermore, economic, social, and political globalization, as well as the competitiveness index have a negative impact on poverty. GDP deflator and unemployment are positively related to poverty. Some policy recommendations are given below. The policymakers should:

- Implement policies to stabilize inflation rates, ensuring price stability and safeguarding the purchasing power of low-income households to reduce poverty.
- Implement comprehensive employment strategies including job creation programs and vocational training to reduce unemployment and alleviate poverty.
- Strengthen governance institutions, enhance transparency, and combat corruption to promote equitable resource allocation and reduce poverty through effective governance mechanisms.
- Implement policies to ensure equitable distribution of the benefits of globalization, including targeted support for marginalized communities and industries, to reduce poverty disparities.
- Foster inclusive social policies and invest in community development initiatives to promote social cohesion and reduce poverty through enhanced social integration.
- Promote democratic governance, transparency, and citizen participation to ensure equitable decision-making and resource allocation, thereby reducing poverty levels.
- Invest in education, infrastructure, and innovation to enhance competitiveness and create economic opportunities, leading to poverty reduction through sustainable economic growth.

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Appendix: List of Selected Developing Countries

Low-income countries	India	Botswana
Burkina Faso	Indonesia	Brazil
Chad	Iran	Bulgaria
Ethiopia	Kyrgyz Republic	China
Gambia	Loa PDR	Colombia
Guinea	Mauritania	Costa Rica
Liberia	Mongolia	Dominican Republic
Madagascar	Myanmar	Ecuador
Malawi	Nicaragua	Georgia
Mali	Nigeria	Jordan
Mozambique	Pakistan	Kazakhstan
Niger	Philippines	Malaysia
Rwanda	Senegal	Mauritius
Sierra Leone	Sri Lanka	Mexico
Uganda	Tajikistan	Moldova
Lower middle-income countries	Tanzania	Montenegro
Angola	Timor-Laste	Namibia
Bangladesh	Tunisia	Panama
Benin	Ukraine	Paraguay
Bhutan	Vietnam	Peru
Bolivia	Zambia	Romania
Cameroon	Zimbabwe	Russian Federate
Cote doloire	**Upper middle-income countries.**	Serbia
Egypt, Arab	Albania	South Africa
El Salvador	Argentina	Thailand
Ghana	Armenia	Turkey
Honduras	Bosnia	