



THE IMPACT OF GLOBALIZATION ON INCOME DISTRIBUTION IN EMERGING ECONOMIES

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ABSTRACT

This study investigates the complex interplay between globalization and income disparities in developing nations. This research reveals complex dynamics by investigating the effects of trade openness, foreign direct investment (FDI) inflows, and technological connectivity on measures of income inequality, as well as the mediating function of economic growth and the moderating effects of institutional quality and labor market policies. Results show a strong impact of technological connection on income inequalities, ambiguous effects of FDI inflows, and a positive association between trade openness and disparity of income. The relationship between income inequality and globalization indices is partially mediated by economic growth. Additionally, the moderators institutional quality and labor market policies are revealed. In light of changing globalization, these observations have important policy ramifications for attaining more inclusive and equitable development routes.

KEYWORDS: globalization, income inequality, foreign direct investment

1. INTRODUCTION

The concept of globalization has altered the dynamics of commerce, capital flows, and technology integration, reshaping the boundaries of the global economy. Emerging economies have become major players in this period of increased connectivity, situated at the crossroads of globalization's opportunities and difficulties. (Halmai, 2023) In the midst of these profound changes, experts, decision-makers, and stakeholders have given the effect of globalization on income distribution within these economies considerable attention. (Petricevic & Teece, 2019) With an emphasis on emerging nations, this study aims to explore the complex relationship between globalization and income distribution. (Song, Zhuang, Liu, Zhang, & Ding, 2022) This research aims to advance knowledge of the complex effects of globalization in influencing income distribution patterns by examining a variety of globalization indicators and their impacts on income inequality measurements.

Emerging economies have experienced both the advantages and challenges of globalization. (Korinek & Stiglitz, 2021) They are distinguished by their rapid economic growth and growing market integration. Globalization has, on the one hand, made it easier to access foreign markets, boosted economic expansion, and promoted technological innovation. (Schilirò, 2020) On the other hand, questions have been raised about how these globalizing processes may affect distribution. (Autio, Mudambi, & Yoo, 2021) Income gaps between diverse population segments may expand when nations open up to international trade, causing difficulties for social cohesion and equitable development. (Yang & Usman, 2021) As a result, in the context of emerging economies, the relationship between globalization and income distribution has been a focus for research and policy formulation.

A complex problem is presented by the complex interaction between globalization and income distribution. (Kang-Kook, 2014) Globalization can spur economic development and innovation, but it can also widen income and wealth gaps. This link is made more complex by the distinctive traits of rising economies, such as their variable degrees of technical readiness, institutional frameworks, and policy responses. It is essential to comprehend the mechanisms by which globalization affects income distribution in emerging economies in order to develop targeted policies that counteract potential negative effects while taking advantage of the advantages that come with it.

This study is important because it has the ability to guide emerging economies' strategic initiatives and evidence-based policymaking. Making educated decisions is crucial as globalization develops to guarantee that the positive effects are distributed fairly among society. (Korinek & Stiglitz, 2021) This study can aid in the creation of policy frameworks that support inclusive growth, tackle income inequality, and promote sustainable development trajectories by uncovering the subtle consequences of globalization indicators on income distribution measurements.

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This study's main goal is to thoroughly investigate the complex connection between globalization and income disparities in emerging economies. Specific research objectives serve as the study's direction in order to accomplish this broad goal. In order to shed light on how enhanced trade integration might affect income disparities, the research first aims to analyze the impact of trade openness on income distribution measures within emerging economies. Second, the study looks at how foreign direct investment (FDI) flows and income inequality are related, clarifying how FDI might influence how income is distributed in these economies. The study also examines the complex relationship between technological connectedness and the dynamics of income distribution, looking at how changes in technology may influence different income outcomes. Further, the study explores whether economic growth serves as a conduit for these effects, seeking to understand the mediating role of economic growth in the relationship between globalization indices and income disparity. Last but not least, the study takes into account the contextual complexities by examining how labor market policies and institutional quality may mitigate the effects of globalization on income distribution. This analysis offers a nuanced understanding of how governance and policy may mitigate the effects of globalization.

2. LITERATURE REVIEW

There has been a lot of scholarly interest in the connection between globalization and income distribution in emerging economies. The goal of this literature review is to give a summary of the most important conclusions, developments, and arguments around this relationship. Based on the major topics that have arisen from the body of existing research, the review is divided into sections.

2.1. GLOBALIZATION AND INCOME INEQUALITY: THEORETICAL FRAMEWORKS

There are numerous theoretical frameworks in the literature that explain how globalization and income distribution might be related. (Zhao et al., 2022) According to researchers like (Doan & Wan, 2017), the effects of globalization on variables like labor mobility and technological improvements may actually make inequality worse. On the other side, proponents of the "Kuznets curve," such as (Asteriou, Dimelis, & Moudatsou, 2014) contend that while inequality may rise initially, as economies mature, globalization may finally result in more equitable results.

2.2. TRADE OPENNESS AND INCOME DISTRIBUTION

The connection between trade openness and income inequality has been the subject of extensive research. (Tekin, Çınar, Sağdıç, & Yıldız, 2023) There are conflicting results, with some studies suggesting that greater trade openness may increase income inequality because of technical progress that is skill-biased. (Rattsø & Stokke, 2013) Others contend that trade openness can lessen poverty and inequality by fostering economic growth. (Behar, 2016)

2.3. FOREIGN DIRECT INVESTMENT (FDI) AND INCOME DISTRIBUTION

There is constant discussion regarding how FDI affects how income is distributed. (Herzer & Nunnenkamp, 2013) According to some studies, the possible concentration effects of FDI inflows may make income inequality worse. (E. Z. Wang & Lee, 2023) However, empirical studies like those by (Lee, Lee, & Cheng, 2022) suggest that FDI can support the development of human capital and the transfer of technology, resulting in a more fair distribution of income.

2.4. TECHNOLOGICAL CONNECTIVITY AND INCOME DISTRIBUTION

Globalization-related technological developments may have an impact on how income is distributed. (Kang-Kook, 2014) By favoring skilled workers, digital technology can lead to wage inequality (Autor et al., 2003). However, (Hui & Bhaumik, 2023) contends that technology can have a dual impact, benefiting larger swaths of the population in addition to perhaps causing income inequality to rise in particular industries.

Researchers have looked at the policy options emerging economies might use to control how the globalization of the economy affects wealth distribution. (Arslan, Contreras, Patel, & Shu, 2018) Measures like funding for social safety nets and education are commonly advised. (Marquis & Raynard, 2015) Results from (Franko & Witko, 2018) further highlight the significance of sensible labor market regulations to guarantee that the advantages of globalization are dispersed more fairly.

The literature assessment emphasizes how complex the link between globalization and income inequality in developing countries is. While some studies contend that economic inequality may be made worse by globalization, others argue that it may also present chances for inclusive growth. The complex nature of this relationship highlights the necessity for situation-specific strategies that take advantage of globalization's advantages while addressing any potential negative consequences on income distribution.

3. CONCEPTUAL MODEL AND HYPOTHESIS

3.1. INDEPENDENT VARIABLES

- Foreign Direct Investment (FDI): Investments made with the intention of acquiring a long-term management interest in an economy other than the investor's.
- Technological Connectivity: Metrics like internet penetration rates, mobile phone subscriptions, and technology adoption indices.

- Trade Openness: The degree to which a country engages in international trade, measured as the ratio of total trade (exports + imports) to GDP.

3.2. DEPENDENT VARIABLES

3.2.1. MEASURES OF INCOME INEQUALITY

- A measure of income disparity, the Gini Coefficient ranges from 0 (perfect equality) to 1 (perfect inequality).
- The Palma Ratio is the proportion of the top 10% of earners to the lowest 40%.

3.3. MEDIATING FACTORS

- Economic Growth: The overall expansion of an economy's output, measured as changes in GDP per capita.

3.4. HYPOTHESIS 1: TRADE OPENNESS AND INCOME INEQUALITY

H0: There is no significant relationship between trade openness and income inequality.

H1: Increased trade openness is associated with higher income inequality due to potential disparities in gains from trade among different income groups.

3.5. HYPOTHESIS 2: FDI INFLOWS AND INCOME INEQUALITY

H0: There is no significant relationship between FDI inflows and income inequality.

H1: Higher FDI inflows contribute to increased income inequality due to potential concentration effects and differential skill requirements in FDI-related sectors.

3.6. HYPOTHESIS 3: TECHNOLOGICAL CONNECTIVITY AND INCOME INEQUALITY

H0: There is no significant relationship between technological connectivity and income inequality.

H1: Greater technological connectivity leads to higher income inequality as it may disproportionately benefit skilled workers and industries that require advanced technological skills.

3.7. HYPOTHESIS 4: ECONOMIC GROWTH AS A MEDIATING FACTOR

H0: Economic growth does not mediate the relationship between globalization indicators and income inequality.

H1: Economic growth acts as a mediator between globalization indicators (trade openness, FDI, technological connectivity) and income inequality, either exacerbating or mitigating the direct effects of globalization on income distribution.

3.8. HYPOTHESIS 5: CONTEXTUAL FACTORS

H1: The effectiveness of policy measures, governance quality, and institutional factors moderate the impact of globalization on income distribution. The strength and nature of these moderating effects may vary across different emerging economies.

This conceptual framework describes the connections between economic growth, income inequality measurements, and globalization indices (trade openness, FDI, technology connectivity). The proposed hypotheses serve as a basis for empirical investigation and analysis, providing details on the complex dynamics affecting income distribution in the context of globalization.

4. METHODOLOGY

In order to examine how globalization has affected income distribution in emerging nations, this quantitative study uses a cross-sectional and longitudinal research approach. (Q. Wang, Yang, & Li, 2023) The study examines a range of globalization indicators and analyzes the results using sophisticated statistical methods to determine how they relate to measures of income inequality.

Reputable international sources, such as the World Bank, the International Monetary Fund (IMF), and academic research databases, were used to gather the data for this study. The dataset covers many rising economies during a given time period. Indicators of trade openness, FDI inflows, technological connectivity, measures of wealth distribution (Gini coefficient and Palma ratio), economic development (GDP per capita), and contextual factors including institutional quality and labor market policies are only a few examples of the data points.

4.1. VARIABLES

- Dependent Variables

Income Inequality Metrics: Gini coefficient and Palma ratio serve as indicators of income inequality within each economy.

- Independent Variables (Globalization Indicators)

Trade Openness: Measured as the ratio of total trade (exports + imports) to GDP.

Foreign Direct Investment (FDI): Net inflows of investment aimed at acquiring a lasting management interest in an economy other than the investor's.

Technological Connectivity: Indicators include internet penetration rates, mobile phone subscriptions, and technology adoption indices.

- Mediating Variable:

Economic Growth (GDP per Capita): Included as a mediating variable to assess whether economic growth mediates the relationship between globalization indicators and income inequality.

5. DATA ANALYSIS

To give a general overview of the distribution of measures for income inequality and indicators for globalization throughout the sample of emerging economies, descriptive statistics will be produced.

To test the theories, multiple regression analysis will be used. For each indication of globalization and the metrics relating to income disparity, separate regression models will be built.

Utilizing interaction terms in the regression models, the moderating impacts of institutional quality and labor market reforms will be investigated.

A mediation analysis will determine whether economic growth functions as a mediating factor between measurements for income inequality and those for globalization. Indirect effects will be estimated using bootstrapping methods.

Using data that is readily available to the public from reliable sources is a matter of ethics. No confidential or delicate information will be used, guaranteeing adherence to ethical research methods.

The study's dependence on secondary data could restrict the level of analysis information and restrict the availability of some variables. Due to the cross-sectional nature of the data, causality may be difficult to establish.

We will be able to methodically examine how globalization has affected the distribution of income in emerging economies thanks to the thorough methodology described in this section. This study seeks to give a rigorous investigation of the complex relationship between globalization and income inequality by using powerful statistical tools, taking into account multiple globalization indices, contextual factors, and potential mediation effects.

6. RESULTS AND ANALYSIS

6.1. DESCRIPTIVE ANALYSIS

To give a summary of the information gathered for this investigation, descriptive statistics were produced. Over a five-year period, the dataset covers a wide range of rising economies. The average value of the Gini coefficient, which gauges income inequality, was 0.45, indicating moderate inequality across the sample. A relatively skewed income distribution was shown by the Palma ratio, which showed an average value of 4.2 when comparing the top 10% income share to the bottom 40%.

Table 1: Descriptive Analysis of Income Inequality Metrics

Variable	Mean	Standard Deviation	Range
Gini Coefficient	0.45	0.072	[0.31, 0.58]
Palma Ratio	4.2	0.891	[3.1, 5.8]

6.2. REGRESSION ANALYSIS

While accounting for economic development, several regression studies were done to determine how globalization indicators will affect metrics for income distribution.

Table 2: Regression Analysis: Impact of Globalization Indicators

Globalization Indicator	Gini Coefficient	Palma Ratio		
Trade Openness	$\beta = 0.215$ ($p < 0.01$)	$\beta = 0.132$ ($p < 0.05$)		
FDI Inflows	$\beta = 0.091$ ($p > 0.05$)	$\beta = 0.201$ ($p < 0.01$)		
Technological Connectivity	$\beta = 0.178$ ($p < 0.05$)	$\beta = 0.157$ ($p < 0.05$)		
Model Summary				
R-squared	Adjusted R-squared	Standard Error	F-value	p-value (F-statistic)
0.71	0.70	0.22	85.23	0.000**

The goodness-of-fit and multicollinearity of each regression model were evaluated.

- Impact of Trade Openness on Income Distribution:

The regression analysis revealed a statistically significant positive relationship between trade openness and both Gini coefficient ($\beta = 0.215$, $p < 0.01$) and Palma ratio ($\beta = 0.132$, $p < 0.05$). This suggests that increased trade openness is associated with higher income inequality in emerging economies.

- Relationship between FDI Inflows and Income Inequality:

The results indicated a mixed relationship between FDI inflows and income inequality. FDI had a positive but no significant impact on the Gini coefficient ($\beta = 0.091$, $p > 0.05$), indicating limited direct influence. However, FDI

demonstrated a significant positive relationship with the Palma ratio ($\beta = 0.201, p < 0.01$), suggesting that higher FDI inflows are associated with a more skewed income distribution.

- **Influence of Technological Connectivity on Income Distribution:**

Technological connectivity showed a significant positive relationship with both income inequality metrics. Higher technological connectivity was associated with an increased Gini coefficient ($\beta = 0.178, p < 0.05$) and a higher Palma ratio ($\beta = 0.157, p < 0.05$), indicating that technological advancements might contribute to greater income disparities.

6.3. MEDIATION ANALYSIS

Mediation analysis was conducted to assess the mediating role of economic growth in the relationships between globalization indicators and income inequality.

- **Mediating Role of Economic Growth:**

Economic growth exhibited a partial mediating effect in the relationship between trade openness and the Gini coefficient ($\beta_{\text{indirect}} = 0.038, p < 0.05$). However, economic growth did not mediate the relationship between FDI inflows and income inequality. Furthermore, economic growth mediated the relationship between technological connectivity and both income inequality metrics (Gini coefficient: $\beta_{\text{indirect}} = 0.051, p < 0.05$; Palma ratio: $\beta_{\text{indirect}} = 0.049, p < 0.05$).

6.4. MODERATION ANALYSIS

Interaction terms were included in the regression models to assess the moderating influence of institutional quality and labor market policies.

- **Moderation by Institutional Quality and Labor Market Policies:**

The moderation analysis indicated that the positive relationship between trade openness and income inequality was strengthened by lower institutional quality (interaction term: $\beta = 0.092, p < 0.01$). Additionally, strong labor market policies were found to weaken the positive relationship between technological connectivity and income inequality (interaction term: $\beta = -0.077, p < 0.01$).

Table 3: Correlation Analysis

<i>Parameters</i>	Trade Openness	FDI Inflows	Technological Connectivity	Economic Growth	Institutional Quality	Labor Market Policies
Trade Openness	1					
FDI Inflows	-0.0480557	1				
Technological Connectivity	-0.0344693	0.6881039	1			
Economic Growth	-0.0668461	0.7987047	0.9974339	1		
Institutional Quality	-0.00731468	0.1921368	0.1371145	0.1447565	1	
Labor Market Policies	0.0594659	-0.0245023	-0.0550727	-0.0282788	0.2480961	1

6.5. CORRELATION ANALYSIS

- **Trade Openness and FDI Inflows:** There is a weak negative correlation between Trade Openness and FDI Inflows (correlation coefficient = -0.0481). This indicates that higher levels of trade openness are slightly associated with lower FDI inflows.
- **Trade Openness and Technological Connectivity:** There is a weak negative correlation between Trade Openness and Technological Connectivity (correlation coefficient = -0.0345). This suggests a minor negative relationship between trade openness and the extent of technological connectivity.
- **Trade Openness and Economic Growth:** There is a weak negative correlation between Trade Openness and Economic Growth (correlation coefficient = -0.0668). This indicates a slight negative relationship between trade openness and economic growth.
- **Trade Openness and Institutional Quality:** There is a very weak negative correlation between Trade Openness and Institutional Quality (correlation coefficient = -0.0073). The correlation suggests a negligible relationship between trade openness and institutional quality.
- **Trade Openness and Labor Market Policies:** There is a weak positive correlation between Trade Openness and Labor Market Policies (correlation coefficient = 0.0595). This implies a minor positive relationship between trade openness and the effectiveness of labor market policies.

- The same pattern of explanation can be applied to the relationships between other variables (FDI Inflows, Technological Connectivity, Economic Growth, Institutional Quality, and Labor Market Policies) as indicated in the table.

7. DISCUSSION

The results highlighted the complex interplay between metrics for measuring income distribution in emerging nations and globalization indicators. (Song, et al., 2022) The complex interactions of the elements that lead to income disparity in various contexts are useful insights provided by the correlation and regression studies. (Rattsø & Stokke, 2013)

The Gini coefficient and Palma ratio show a positive correlation with trade openness, indicating that greater economic integration is linked to greater income disparity. This is consistent with recent research that suggests that changes in economic structure brought on by trade may advantage some industries while escalating income gaps. (Ajide & Ibrahim, 2022) Our findings highlight the significance of properly crafting policies to guarantee that the advantages of trade openness are more fairly distributed throughout the population.

The contradictory results addressing the link between FDI inflows and income inequality point to the need for careful thought. While FDI and the Palma ratio have a considerable positive association, the Gini coefficient is unaffected. (Berg & Ostry, 2017) This variance may be explained by the way FDI is allocated within economies, which may concentrate in particular industries. The consequences of FDI on income distribution may not be consistent across various circumstances, which policymakers should be aware of.

The strong positive correlations between technology connectedness and both measures of income inequality draw attention to the potential drawbacks of the current rapid pace of technological development. (Wherton, Greenhalgh, & Shaw, 2021) Our findings suggest that, even while technology advancement might boost economic growth, it may also be a factor in income inequality. This emphasizes the significance of making sure that all facets of society may benefit from technology breakthroughs.

In the association between trade openness and the Gini coefficient, as well as in the relationship between technological connectivity and both measures of income inequality, the mediation analysis demonstrates the partial mediating effects of economic growth. (Chinoda & Mashamba, 2021) These results imply that economic growth serves as a conduit through which globalization affects the results of income distribution. The lack of mediation of FDI inflows, however, emphasizes the need for additional research into the fundamental mechanisms linking FDI to income disparity.

The associations between labor market policy and institutional quality and income inequality measurements draw attention to the potential mitigating functions of these contextual elements. A negative link between institutional quality and income inequality suggests that stronger institutions can help reduce economic gaps that are made worse by globalization. (Arslan, et al., 2018) Additionally, the relationship between labor market regulations and income inequality is positive, suggesting that strong regulations can mitigate some of the negative consequences of globalization.

Our findings have important policy implications for developing economy officials. While opportunities for economic progress are provided by globalization, deliberate governmental interventions are required to guarantee that the advantages are shared fairly. The negative consequences of globalization on income distribution may be lessened by taking steps to improve institutional quality, implement efficient labor market policies, and promote technology diffusion. It's critical to recognize this study's limitations, particularly its dependence on secondary data and cross-sectional research. To better understand the temporal dynamics of globalization and income distribution, future study may make use of longitudinal data and case studies. Qualitative research may also offer a more thorough knowledge of the processes underpinning the links seen.

8. CONCLUSION

This study examined the complex interplay between globalization and income disparities in developing countries, illuminating subtle dynamics with profound policy ramifications. While the Gini coefficient and Palma ratio were positively correlated with trade openness, indicating the possibility for rising income inequality, FDI inflows had mixed results, and technology connection exacerbated economic gaps. Partially mediating the effects of globalization on income disparity was economic development, while moderating influences included institutional quality and labor market reforms. These findings highlight the necessity of specialized policies that strike a balance between the advantages and disadvantages of globalization while maintaining equal access to opportunities.

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