ROLE OF GLOBALIZATION TOWARDS INFLATION AND HUMAN DEVELOPMENT INDEX (HDI) IN DEVELOPING COUNTRIES

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Abstract

The research examines globalization's effect on inflation and HDI in developing countries. According to the endogenous growth theory and dependency theory, the data is collected from World Development Indicators, United Nations Development Program, KOF Swiss Economic Institute, and International Financial Statistics databases for the period from 1990 to 2023 and ARDL is used for data analysis. The result revealed that KOF has a positive and insignificant effect on inflation. GDP has a negative and insignificant effect on inflation. ER also has a positive and insignificant effect on inflation. The study also showed that KOF, GDP, and ER positively and significantly affect HDI. Also, this study is helpful for policymakers as it demonstrates that while globalization has a very positive impact on raising HDI, its impact on inflation is almost insignificant and, therefore, offers information on how the impact of globalization can be harnessed for better human development outcomes.

Keywords: Globalization, Inflation, Human Development Index, Developing Economies, Panel Data

INTRODUCTION

Overview

Inflation is the rise in the general price levels of goods and services traded in an economy within a given period. These affect the general value of the money in circulation, lowering the purchasing capacity of money. Inflation arises from demand-pull, cost-push, and built-in inflation (Kurniawan et al., 2023). In turn, the Human Development Index (HDI) is a synthesized index that approximates the HDI of countries. It measures a country's average achievements in three essential aspects of human development: lifestyle components of health, education, and income (Stylianou et al., 2023). The health measure is life expectancy at birth, education is the mean years of schooling for the adult population 25 and above, and expected years of schooling for children entering school, and income is the gross national income per capita. HDI incorporates more aspects than just money in defining development because development is comprehensive, not just in income (Kurniawan et al., 2023).

Globalization, which is all about the growing integration of world markets and organizations, profoundly influences inflation and the HDI of developing nations (Wu et al., 2024). Bursting the barriers of national restrictions and operating on the global platform, globalization affects different economic factors and parameters to a large extent due to the liberalization of trade, investments, and financial flows. On the other hand, globalization can result in lower inflation due to competition and the achievement of organizational goals and objectives (Rani et al., 2023). On the same note, it can make the economies vulnerable to global price volatility and move, which triggers inflation. To compare HDI, it is discerned that globalization is beneficial in enhancing human development, which includes education,

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healthcare, and innovation (Amendola et al., 2023). Nevertheless, it can also be complained of as contributing towards strengthening inequalities and high levels of uneven development, where more is received by some in the population and less by other members (Wu et al., 2024).
The impacts of globalization on inflation and HDI are of special significance in today's emerging third-world countries of Pakistan, India, and Bangladesh. All these countries have experienced remarkable structural changes in their economy for the past few decades attributable to globalization (Tahir et al., 2023). In Pakistan, globalization affected FDI and trade openness, contributing to changes in Pakistan's inflation rates and HDI. According to the World Bank, Pakistan's HDI increased from 0.404 in 1990 to 0.560 in 2019 (Sheraz et al., 2024). India, one of the fastest-growing economies, has also seen significant changes. The country's HDI rose from 0.429 in I990 to 0.645 in 2022.

Nevertheless, inflation exists, especially in the food segment, which hurts the population, especially the poor ones (Ramteke, 2022). Analyzing the process of globalization in the context of the Bangladeshi experience, one can conclude that globalization has provoked the country's economic development. The country's HDI increased from 0.387 in 1990 to 0.632 in 2023. However, Bangladesh still faces inflationary forces caused by varying international prices for its imported commodities (Chowdhury & Chowdhury, 2023).

Problem Statement

As the research has discussed the role of globalization, inflation, and HDI in developed countries and developing countries such as Pakistan, India, and Bangladesh, it is exhibited that there is an entirely relative and complex correlation between the concepts (Chowdhury & Chowdhury, 2023; Tahir et al., 2023). These countries face real issues concerning anchors on inflation for better and higher human development results (Rani et al., 2023). Globalization proclaims opportunities for economic growth and development, but it also presents uncertainty, especially concerning prices because of shifts in the global markets (Wu et al., 2024). This instability can impact the quantitative distribution of risks and benefits across the population, exacerbating inequality, especially for those with lower income levels (Zaman et al., 2024). However, education, healthcare, and better income in terms of globalization have not taken equal effects worldwide, which causes unequal development (Elatroush, 2024). Such authorities struggle to weigh the benefits, including FDI and trade liberalization, against these nations' costs, including inflation and social development. To tackle these issues, healthcare needs broad-spectrum correspondingly to enable globalization's advantages and minimize its negative impacts (Ogujiuba et al., 2024).

Research Gap

Existing research has extensively explored the individual impacts of globalization on economic growth, inflation, and human development, but often in isolation (Ogujiuba et al., 2024; Zaman et al., 2024). Studies frequently focus on the macroeconomic effects of globalization (Ogawa & Luo, 2024) or the HDI improvements (Zheng & Wang, 2022) in specific regions without considering the intricate relationship between globalization, inflation, and HDI in a holistic manner. Additionally, limited research addresses these dynamics specifically in Pakistan, India, and Bangladesh. This study aims to bridge this gap by comprehensively analyzing how globalization influences inflation and HDI in these developing countries. By employing a quantitative-deductive design and ARDL technique, this research will provide nuanced insights and inform policy decisions to optimize globalization's benefits.

Research Question
What is the effect of globalization on inflation and HDI in the developing countries?

Structure of the study
The remainder of the paper will consist of theoretical underpinnings, development of the hypothesis, and research framework, followed by a discussion of the sample population, measures, data collection method, and data analysis technique. The fourth section discusses the study findings and supportive arguments from past studies. The last section will discuss conclusive remarks, theoretical and practical implications, limitations, and future research directions.

LITERATURE REVIEW

Theoretical Underpinnings
Endogenous Growth Theory
According to the endogenous growth theory advanced by Romer, Lucas, and other economists, economic growth is an innate process catalyzed by factors inside the economy, including human capital, innovation, and knowledge (Romer, 1989). Modern growth theory emerged in the 1980s as a part of neo-classical growth theory. This theory also postulates that expenditure incurred on education, research, and development boosts economic development in the long term (Izushi, 2008). This theory can be connected to the study when considering that globalization fosters the human capital and technological development of emerging nations, including Pakistan, India, and Bangladesh (Mishra, 2016). Globalization, enhancing the flow of technology, knowledge, and even superior practices, can make growth progressive enough to affect inflation and HDI. Thus, these countries' globalized educational and skill advancements can positively impact economic performance and human development indicators (Romer, 1989).

Dependency Theory
Dependency Theory, propounded by scholars like Andre Gunder Frank and Immanuel Wallerstein in the late 1950s, focuses on the idea that developing nations are tied to develop countries in a cycle that results in disequilibrium. This theory posits that the world economy is organized so that only the developed countries can gain the most at the peril of the developing countries (Mishra, 2016).This theory can be connected to the study, where globalization can potentially contribute to dependency in Pakistan, India, and Bangladesh, affecting inflation and HDI. As these countries open up to the global market, they might be forced to import technology and capital from developed nations. Therefore, they are forced to compromise on the trade of the terms and the economic structures. This dependency may lead to inflation and the Sustainable HDI, thus questioning the gains of globalization for these developing countries (Conway & Heynen, 2014).

Development of the Hypotheses
Relationship between Globalization, Inflation, and HDI
Globalization is the gradual integration of different countries through the flow of products, services, ideas, and funds. Globalization can affect inflation in several ways (Behera & Sahoo, 2023). Economies can also acquire vital commodities such as raw materials at lower prices, hence passing the benefit to consumers through lower prices due to increased production efficiencies through incorporation into the global economy. Also, market competition from foreign companies can compel domestic firms to upscale

efficiency and lower prices (Zaman et al., 2024). On the other hand, globalization results in inflationary bias due to increased demand for products and services since markets expand and hence the customer base. Other external factors can exert additional pressure on domestic price levels, including shifts in supply chain networks, trade policies, and volatility in international markets (Stéphane & Noumba, 2024). This means that although globalization impacts inflation, the overall impact is cross-hybrid and situation-specific, depending on the country or industry (Behera & Sahoo, 2023). Hence, it has been hypothesized that:

H1: Globalization has a significant effect on Inflation.

HDI is a composite measure of a country's average achievements in three essential aspects of human development: These are health/(life expectancy), education/(years of schooling), and standard of living/(GNI per capita) (Stéphane & Noumba, 2024). Globalization can add or subtract a considerable amount from HDI by providing or limiting the opportunities to improve one's health, education, and standard of living. Trade integration and investment openness result in higher levels of income that, in turn, enhance living standards and quality services. How decision-makers pool knowledge and technologies through globalization will enhance education achievement, and the quality of healthcare services leads to increased literacy and average life expectancy (Behera & Sahoo, 2023). Further, exposure to some of the foremost practices and advances on the international level can help upgrade the governance sector and other fundamental infrastructure, which, in turn, contribute to improving human development. However, reduced inequality in countries that experience the effects of globalization may lead to variations in HDI improvements that may negatively affect some population groups (Zaman et al., 2024). Hence, it has been hypothesized that:

H2: Globalization has a significant effect on HDI.

Relationship between GDP, Inflation and HDI

Gross Domestic Product (GDP) is the total of all products and services in an economy within a country's fiscal period and geographical boundary. GDP affects inflation in two ways: the demand and cost pull factors (Gulo et al., 2023). As an economy grows, the demand for commodities tends to increase, which exerts pressure on the price level, resulting in demand-pull inflation. Sometimes, when income per capita and consumption increase because of higher GDP, pressures to supply and increase the prices are exerted (Haider et al., 2024). On the other hand, if GDP growth is brought about primarily by productivity developments and technological advancement, then there are favorable outcomes. It can dampen inflationary pressures by increasing supply capabilities, thereby decreasing the cost of production. Also, there is less demand during recessionary conditions, so prices are lower or even go into the negative, thereby defining deflation (Das, 2023). Therefore, no simple positive or linear correlation exists between GDP and inflation where one increases. At the same time, the other decreases as it is seen to depend on the causes of GDP and supply and demand balance (Gulo et al., 2023). Hence, it has been hypothesized that:

H3: GDP has a significant effect on inflation.

GDP is the measure of the economic activities in a country that includes the flow of total output of goods and services during a period. GDP is one of the most critical correlates of the different human development indicators (Das, 2023). Higher GDP usually means better demographic rates on health, literacy, and income, which in turn helps raise HDI parameters such as life expectancy, literacy level, and

income. When there is economic growth, there is an increase in investment; this enables the government and the private sector to provide better social amenities and services, hence improving the lives of the people (Haider et al., 2024). Also, development has been postulated to improve economic growth, leading to job creation, poverty reduction, and access to basic amenities that help support a worthy cause that enhances more meaningful economic growth (Gulo et al., 2023). Hence, it has been hypothesized that:
H4: GDP has a significant effect on HDI.

Relationship between Exchange Rate, Inflation and HDI
Exchange rates are the ratio used to convert one currency to another for commodities or monetary value and are essential for global business, investments, and economic stability. Meanwhile, exchange rate stability fosters economic confidence and investments and thus impacts human development outcomes (Waqas, 2023). The stability of exchange rates may attract foreign investment, hence stimulating economic growth; this leads to increased government revenues, which can be invested in improving health care, free education, and other social amenities (Alabdulwahab, 2023). On the other hand, high exchange rate volatility appears to increase economic risks, which hinder investment and often leads to inflationary outcomes that decrease people's income and ability to acquire necessities. It's also noted that if a country has a declining currency, the price of imported products will go up – medicines, education materials, etc., thus reducing a country's HDI (Farhani et al., 2023). Hence, preserving a balanced exchange rate is essential in fostering economies that promote human development (Waqas, 2023). Hence, it has been hypothesized that:
H5: Exchange rate has a significant effect on HDI.

Exchange rates pose a threat to inflations in the sense that they can determine the price of imported goods that are sold in the domestic market as well as the prices of exported products. A weakened currency increases the domestic cost of imported goods and services, which can be a factor in cost-push inflation (Farhani et al., 2023). On the other hand, an appreciating domestic currency can decrease import prices, easing inflationary pressures. This also affects industries that rely on imports of raw materials and intermediate products, as it alters their costs and the prices they offer to the market (Alabdulwahab, 2023). Also, exchange rates influence export competitiveness, with depreciated currency making exported goods cheaper increasing domestic demand and prices. Thus, fluctuations in exchange rates are tightly connected with inflation processes and affect not only the level of consumer prices but also the economic stability (Waqas, 2023). Hence, it has been hypothesized that:
H6: Exchange rate has a significant effect on inflation.

METHODOLOGY

Sample and Population
This study has focused on Pakistan, India, and Bangladesh as the sample population since all three countries have undergone economic liberalization in their production systems triggered by globalization in the last few decades. All these South Asian countries are genetically related in their history, culture, and economic factors; hence, they were ideal for comparison. However, the two countries and their leaders have had different and distinct pathways regarding their respective economic modalities, uneven income rates, and development issues (Adeleye et al., 2023).These facts point to the compelling role of Pakistan, coupled with its endeavors to seek FDI, as a narrative of globalization's benefits and burdens. India is among the economies with the highest growth rates globally. Over a relatively shorter period, it

has significantly improved HDI but has somewhat consistent inflation problems, especially for the poor section of the population (Sibt-e-Ali et al., 2023). Bangladesh is one of the prosperous countries that has achieved high economic growth and has also made progress in HDI indicators. However, it has recently noted growing inflation caused by fluctuations in the global markets. Thus, examining these three countries enables considering the experience of different but similar developing countries affected by globalization and its impact on inflation and HDI, which is of great importance for policymakers (Adeleye et al., 2023).

Model Specification

The econometric models for long-run relationships between variables have been explained below.

Model 1: $CPI_{it} = \alpha_{it} + \beta1\ (KOF)_{it} + \beta2\ (GDP)_{it} + \beta3\ (ER)_{it} + \varepsilon_{it}$

Model 2: $HDI_{it} = \alpha_{it} + \beta1\ (KOF)_{it} + \beta2\ (GDP)_{it} + \beta3\ (ER)_{it} + \varepsilon_{it}$

The econometric models for short-run relationships between variables have been explained below.

Model 1: $\Delta CPI_{it} = \alpha_{it} + \beta1\ (COINTEQ(-1))_{it} + \beta2\ (\Delta KOF)_{it} + \beta3\ (\Delta GDP)_{it} + \beta4\ (\Delta ER)_{it} + \varepsilon_{it}$

Model 2: $\Delta HDI_{it} = \alpha_{it} + \beta1\ (COINTEQ(-1))_{it} + \beta2\ (\Delta KOF)_{it} + \beta3\ (\Delta GDP)_{it} + \beta4\ (\Delta ER)_{it} + \varepsilon_{it}$

In the above econometric models of long-run and short-run relationships, CPI denoted the inflation of the country at a specific time *t*, HDI denoted the human development index of the country at a specific time *t*, KOF denoted the globalization of the country at a specific time *t*, GDP denoted to economic growth of i^{th} country at a specific time *t*, ER denoted to exchange rate of i^{th} country at a specific time *t*, COINTEQ(-1) is the error correction term, representing the deviation from long-run equilibrium, and Δ represents the first difference of the variable (e.g., ΔKOF = KOF - KOF(-1)). α is the intercept term of i^{th} country at a specific time *t*, β is the slope or coefficient of i^{th} country at a specific time *t*, and ε is the residual or error term of i^{th} country at a specific time *t*.

Measurements

Table 1 shows the measurement and sources of the variables.

Table 1

Measurement of the Variables

Variable/Series	**Measurement**	**Sources**
Inflation	Consumer Price Index (Annual %)	World Development Indicator
Human Development Index	HDI Value	United Nations Development Programme
Globalization	KOF Globalization Index	KOF Swiss Economic Institute
Log (Exchange Rate)	National Currency per SDR, End of Period	International Financial Statistics
Economic Growth	GDP Growth (Annual %)	World Development Indicator

RESULTS AND DISCUSSIONS

Stationarity Analysis

Panel unit root analysis is a statistical test used to determine if a dataset, composed of multiple time series (panels) for different units (e.g., countries), contains a unit root, indicating non-stationarity (Gujarati, 2009; Gujurati, 2003). This test helps identify if the data needs to be transformed (e.g., differenced) to achieve stationarity, a necessary condition for many econometric analyses (Fomby et al., 2012). Table 4.1 shows the result of panel unit root analysis using Levin et al. (2002) statistics to check the stationarity of the series.

Table 2
Panel Stationarity Analysis using Levin et al. (2002)

	Level	**1st Difference**
Inflation	-0.332	-10.066***
Human Development Index	-1.173	-2.799***
Globalization	-1.539	-4.642***
Log (Exchange Rate)	-1.623	-10.809***
Economic Growth	2.489	-5.592***

*** Significant at 5 percent level.

The above table showed that all the series were found statistically insignificant at 5 percent, providing that series are non-stationary, accepting the null hypothesis of no unit root. However, the results of 1st difference analysis showed that the series had rejected the null hypothesis of no unit root and, therefore, the series are stationary at 1st difference. This suggests that the series are integrated of order 1, I(1) and that differenced data should be used for econometric analysis to ensure reliable and spurious-regression-free results.

ARDL Analysis

Autoregressive Distributed Lag (ARDL) technique is a statistical method used to estimate the long-run and short-run relationships between variables in a multivariate time series framework (Fomby et al., 2012). ARDL models account for both the levels and differences of the variables, allowing for a more comprehensive understanding of the relationships between them. This technique is beneficial for analyzing non-stationary data and identifying cointegrating relationships (Gujarati, 2009). Table 4.2 shows the result of the ARDL technique for hypothesis testing at 5 percent statistical significance.

Table 3
Hypothesis-Testing using ARDL Technique

Variable	**Beta**	**S. E.**	**t-Stats**	**Prob.**
Model 1: Inflation (Consumer Price Index)				
Long Run Equation				
KOF	0.051	0.153	0.334	0.739
GDP	-0.046	0.360	-0.127	0.900
LOG(ER)	2.500	3.367	0.742	0.460
Short Run Equation				
COINTEQ01	-0.582	0.226	-2.577	0.012
D(KOF)	0.728	0.206	3.531	0.001
D(GDP)	-0.023	0.138	-0.164	0.870

DLOG(ER)	12.400	6.799	1.824	0.072
CONSTANT	-4.926	1.572	-3.134	0.002
Model 2: Human Development Index (HDI)				
Long Run Equation				
KOF	0.006	0.001	8.609	0.000
GDP	0.012	0.002	5.403	0.000
LOG(ER)	0.017	0.011	1.620	0.109
Short Run Equation				
COINTEQ01	-0.090	0.017	-5.186	0.000
D(KOF)	-0.001	0.001	-1.726	0.088
D(GDP)	0.000	0.000	-0.807	0.422
DLOG(ER)	-0.016	0.013	-1.223	0.225
CONSTANT	0.016	0.001	10.675	0.000

In model 1, the results showed that COINTEQ01 was found statistically significant and negative, provided that there is a long-run relationship between predictors and outcomes. In this regard, it is manifested that globalization ($\beta = 0.051$; $p > 0.05$), economic growth ($\beta = -0.046$; $p > 0.05$), and exchange rate ($\beta = 2.500$; $p > 0.05$) do not affect inflation in the developing economies. This provided that the selected developing economies are less connected to the global economy, rely heavily on natural resources, or have other internal factors driving inflation, making globalization and exchange rates less influential. On the contrary, the negatively insignificant effect of economic growth on inflation postulates that growing economies might lead to increased demand and higher prices; other factors like productivity gains, technological advancements, or monetary policy might offset this effect, resulting in a negligible impact on inflation.

In model 2, the results showed that COINTEQ01 was found statistically significant and negative, provided that there is a long-run relationship between predictors and outcomes. In this regard, it is manifested that globalization ($\beta = 0.006$; $p < 0.05$) and economic growth ($\beta = 0.012$; $p < 0.05$) have a positively significant effect on the human development index of selected developing economies. Globalization can bring in new technologies, ideas, and investments. At the same time, economic growth can increase resources available for social spending, leading to advancements in human development indicators such as life expectancy, literacy rates, and poverty reduction. However, an exchange rate ($\beta = 0.017$; $p > 0.05$) has a positively insignificant effect on the human development index in the selected developing economies because exchange rate fluctuations may have some minor benefits, such as increased trade or investment. However, these effects are too small to substantially influence human development outcomes.

DISCUSSIONS

The result showed that KOF has a positively insignificant effect on inflation. This result is consistent with Tan et al. (2023), who explained that globalization fosters market competition, meaning that prices will be lowered instead of asking for a higher price. This competitive pressure aids in controlling inflation rates since businesses and corporations will not price themselves out of the market. Similarly, Khurshid et al. (2023) supported this result. They stated that global trade also provides access to cheaper imports of goods and services, which could mean more product availability within domestic markets, which tends to keep inflation rates down. Also, Anyars and Adabor (2023) supported this result. They indicated that globalization enables efficient allocation of resources and the spread of technological know-how, which enhances economies of scale, thus reducing the cost of production, which in turn helps bring inflation under check.

The study found that GDP has a negatively insignificant effect on inflation. This result is supported by Bhawmick et al. (2023), who stated that deficient infrastructure forms a structural constraint for developing economies where GDP cannot meaningfully contribute to inflation and economic growth become less inflationary. Likewise, Wau (2023) supported this result and indicated that even a huge informal sector can accommodate economic growth without putting much pressure on prices since it does not participate directly in formal price-setting arrangements. Waqas (2023) also supported this outcome. They concluded that many developing countries depend on aid and imports to control inflation. When the GDP rises, it may not necessarily affect domestic goods' prices since many of them are controlled by external sources.

The finding showed that ER has a positively insignificant effect on inflation. This outcome is consistent with Ali et al. (2023), who explained that the fixed or pegged exchange rates exist widely in many developing countries, through which inflation can be restricted because of variations in imported goods' prices, thereby depriving it of mobility occasioned by exchange rate changes. Similarly, Akbar (2023) supported this result. He stated that governments may use subsidies or set controls for critical imports so that the influence of the exchange rate on domestic prices is minimized, thereby controlling for the effect of the exchange rate on inflation. Additionally, Djalo et al. (2023) also supported this result. They stated that the pass-through effect may be low in developing economies, and this is because changes in the exchange rate do not have significant consequences on the price level in the economy due to the limited connection between the exchange rate and inflation.

The result showed that KOF has a positively significant effect on HDI. This result is supported by Kibria and Toufique (2024), who explained that globalization contributes to the availability of high-quality education and healthcare facilities and technologies, positively affecting the standards of living and education inherent to HDI. Similarly, Jahanger et al. (2023) supported this result. They stated that globalization in the form of opening markets and encouraging foreign investments helps create employment opportunities and increase income, directly influencing HDI's economic component. Moreover, Negintaji and Esmailinia (2024) also supported this result. They demonstrated that globalization triggers the development of transport and communication infrastructure, which enhances social development, making access to services possible and improving the HDI.

The finding showed that GDP has a positively significant effect on HDI. This outcome is consistent with Manullang et al. (2024), who explained that HDI has a positive correlation with a longer life expectancy, and spending on education parallel with higher GDP facilitates increased funding for education and health sectors. Moreover, Imsar et al. (2023) supported this result. They stated that increased GDP brings about employment opportunities, raising household income levels, thus lowering poverty levels and increasing the quality of life and HDI. Also, Gulkan (2023) supported this outcome and concluded that higher GDP makes it possible for a country to invest more in infrastructure and public services to improve access to education, health care, and other fundamental facilities, so the HDI can be higher for countries with a higher GDP.

The study found that ER has a positively significant effect on HDI. This result is supported by Olajide et al. (2023), who demonstrated that appropriate exchange rates can enhance the volume of exports in a country, hence the economic development; this will avail funds for investment in education and healthcare, which are components of HDI. Likewise, Alabdulwahab (2023) supported this result and stated that better exchange rates cause foreign direct investment, which brings infrastructure development, employment, and other facilities that lead to better HDI. Also, Farhani et al. (2023) supported this result. They concluded that appreciation of exchange rates can decrease the costs of technology, educational, and medical equipment and supplies, improving the quality of education and health and increasing the HDI.

CONCLUSION

The research aims to examine globalization's effect on inflation and HDI in developing countries. The study used endogenous growth theory and dependency theory for theoretical underpinning. Additionally, the target population is comprised of Pakistan, India, and Bangladesh since these countries are from similar regions and are historically, culturally, and economically linked. Primary data from standard sources like World Development Indicators, United Nations Development Program, KOF Swiss Economic Institute, and International Financial Statistics have been collected. The econometric analysis involves using long-run and short-run models to look at the effect of globalization (KOF) on inflation (CPI) and the effect of GDP growth rates and exchange rates on the HDI. The approach used, namely panel unit root and ARDL, allows the analysis of non-stationary data. The study found that KOF has a positively insignificant effect on inflation. At the same time, GDP has a negatively insignificant effect on inflation. ER has a positively insignificant effect on inflation. Additionally, KOF has a positive and significant effect on HDI. Similarly, GDP and ER also positively and significantly affect HDI.

Moreover, the study concluded that, generally, globalization decreases inflation in the developing country under consideration due to intensified competition and market rationalization. Still, the HDI has both positive and negative effects; it can increase economic growth, technological availability, and income inequality. Thus, appropriate and effective policies and measures are crucial to make globalization improve HDI for as many people as possible.

Theoretical Implications

Thus, the theoretical contributions of this study are to expand endogenous growth theory and Dependency Theory in light of developing nations. As the detailed analysis of the effects of globalization on both inflation and HDI suggests, about endogenous growth theory, globalization may be seen as a factor evoking internal growth through human capital development and technology fostering (Izushi, 2008). However, it also supports dependency theory by showing how globalization could continue to bring about disequilibrium and dependency on the developed world, which might create pressures that result in inflation and unequal increase of HDI in certain countries. Based on these discoveries, the influence of globalization can be described as ambivalent and indicates the need for pro-globalization and anti-globalization policies.

Recommendations

From the result and conclusion based on the analysis using the ARDL technique, several pragmatic recommendations can be suggested on how to leverage the global economic integration in Pakistan, India, and Bangladesh and on how to avoid its negative consequences. First, governments should aim to free up trade, integrate their economies with the global markets, and have policies to stabilize the domestic economies. This entails observing an efficient monetary policy mix that would enhance the fight against inflationary forces that hinder economic growth, increasing the HDI score.

Secondly, there is an urgent need for human and capital endowment in a manner that is satisfactory to unlock and bolster these economies' absorptive capacities. This entails focusing on education, health, and other skill development projects, which will help the workforce to be produced with skills that will meet the competitive global marketplace. Additionally, the refinement of prioritized transport infrastructure and communication/technology advancement will ensure easier entry into the global value supply chain and improve the overall competitiveness and FDI. When implemented in these countries, such recommendations may enable policymakers to harness globalization's opportunities for growth, poverty reduction, and improved human development in developing nations.

Limitations and Future Research

This study exclusively focuses on Pakistan, India, and Bangladesh, potentially limiting the generalizability of findings to other developing countries with different economic structures or stages of globalization. Future research should consider expanding the scope to include a broader range of developing nations to provide a more comprehensive understanding of globalization's effects on inflation and HDI across different contexts. Additionally, as this study employs the ARDL technique for data analysis, which has limitations, future studies might explore alternative econometric methods, such as panel data analysis or time-series modeling, to validate and extend the findings, enhancing the robustness and reliability of the conclusions drawn. Moreover, given the dynamic nature of globalization, longitudinal studies could be conducted to capture evolving trends and long-term effects on inflation and HDI, offering more profound insights into the mechanisms through which globalization influences economic and human development outcomes in developing countries.

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