

Impact of Foreign Direct Investment on Human Development Index: A Study of Indian Economy.

Ms. Umang Bhutani¹, Ms. Vaishali Chhabra², Prof. Dr. Suman Makkar³

^{1,2}Assistant professor, ³Professor

¹Economics, Dev Samaj College for Women sector 45 b Chandigarh

²Economics, GGDSD College Chandigarh

³Economics, Panjab University

Abstract

Foreign Direct Investment (FDI) is widely recognized as a crucial catalyst for economic growth, while the Human Development Index (HDI) serves as a comprehensive measure of a nation's social and economic progress. Despite numerous studies investigating the connection between FDI, HDI, globalization, and other factors, the precise nature of the relationship between FDI and HDI remains somewhat unclear. This research paper aims to bridge this gap by empirically examining the impact of FDI on India's HDI score. Utilizing the time-series data from World Bank Indicators and the Handbook of Indian Economy spanning the period 1990-2022, the study employs the Autoregressive Distributed Lag (ARDL) model to analyze the long-run impact of FDI on HDI. Furthermore, Error Correction Model is employed to investigate the short-run relationships between these variables. The empirical findings indicated the existence of long-run and short-run relationship between FDI and HDI along with a positive response of both the variables to a shock (impulse) in the corresponding variable. These findings are expected to provide valuable insights to the extent to which FDI contributes to human development in India. By understanding the nature and strength of this relationship, policymakers can formulate more effective strategies to attract and leverage FDI for enhancing human development outcomes, including improving education, healthcare, and overall quality of life for Indian citizens.

Keywords: Foreign Direct Investment, Human Development Index, ARDL, India

INTRODUCTION

In the context of achieving comprehensive growth, Human Development Index (HDI) is considered an imperative tool to evaluate countries' performances in respect of three major parameters - education, health and standard of living. HDI was developed by United Nations Development Programme (UNDP) in 1990 to assess socio-economic growth of nations worldwide. However, it does not function in isolation, rather it is influenced by a variety of factors, which in turn affect the policy decisions thereby influencing the well-being of a larger population strata. Of the key determinants, Foreign Direct Investment (FDI) has gained significant attention and is often recognized as a stimulant for economic advancement, especially in developing countries. Although FDI provides an impetus to economic growth by promoting the transfer of technological know-how, improving employment opportunities, and

enhancing productivity, its influence extends beyond mere economic prosperity, significantly affecting human development outcomes. Thus, given its pivotal role in designing the country's socio-economic fabric, it becomes imperative to understand the relationship between FDI and HDI, as it is crucial for devising national policies and improving socio-economic well-being of the citizens.

Given the Sustainable Development Goals of United Nations (2015) to guide the global efforts towards sustainable and equitable development, it becomes indispensable for researchers to study the human capital development under these frameworks to check for their convergence and effectiveness. This would not only help governments to cater to sectoral growth, but would also help to identify the type of investments that are the most profitable to promote inclusive development and sustainable growth. Additionally, the study of intersection between FDI and HDI would provide clarity on how economic investments translate to social outcomes in the short run as well as the long run, leading to an improved long-term growth trajectory.

Apart from the practical implications for policy making, probing into the FDI - HDI relationship provides valuable insights on the various economic theories that have long highlighted the role of foreign investments in economic development. The difference, however, lies in the perspective of these theories of how they explained the potential impact of FDI on various HDI parameters. Over decades, various theories have emphasized on the role of FDI in improving human capital and achieving sustained economic growth.

The Export-Led Growth Theory, for instance, emphasized that countries dedicated towards exporting goods and services were more likely to access international markets, foster economic development, attract better employment opportunities for its citizens, ultimately improving human welfare and equal distribution of wealth. Similarly, the Solow Growth Model (1956), emphasized on FDI being a crucial catalyst of capital accumulation and technology transfer, as it augments income generation, employment creation, improving access to education and life expectancy, indicating a positive influence of FDI on HDI. Followed by Gunnar Myrdal, who in his Cumulative Causation Theory (1957) explained how FDI creates a "virtuous cycle" by putting initial thrust on infrastructure and human capital development, which further creates a cycle of changes to bring about a change in economic and human development outcomes.

Similarly, the Human Capital Theory (1964) given by Gary Becker highlighted the imperative role of investments in education and healthcare by attracting new job opportunities, ultimately enhancing the economic prosperity and HDI score of a nation. This was succeeded by Endogenous growth theory of the 1980's given by Paul Romer and Robert Lucas, and highlighted the role of innovation, knowledge spillovers and human capital to foster economic growth in a country.

Amartya Sen was a pioneer in explaining individuals' freedoms as a function of their quality of life. In his Capability Approach (1985), Sen emphasized that an improvement in FDI brings about a positive change in the people's capabilities through improved access to healthcare, better infrastructure, education and employment. In this new era, where sustainable growth stands at the utmost priority of every country, the Sustainable Development Theory was given by the Brundtland Commission (1987) in the report titled "Our Common Future", which formed a base for various countries to focus on

maintaining a balance between sustainable trade practices, social well-being and economic development, thereby providing evidences of a positive impact of FDI on economic and social well-being of various countries.

Hence, recognizing the impact of FDI on HDI through varied economic lenses would enable the understanding of current development patterns, underscore the potential of FDI to contribute to human welfare as well as help in advancing the human development agenda globally.

REVIEW OF LITERATURE

Gökmenoğlu et. al.,(2018) examined the relationship between FDI and human development with special reference to Nigeria for the time period 1972 to 2013. The study used secondary data to analyze the results which is sourced from World Bank development indicators (2015) and employed Johansen cointegration test to check the long-term relationship between the variables and the results revealed a long-term relationship between FDI and human development indices (e.g., school enrolment, life expectancy at birth, and gross national income). Toda-Yamamoto test is also used to check the causality between the variables and the results shown long-run bidirectional causality between FDI and life expectancy at birth and there is also unidirectional causality from FDI to gross national income. In this way the study indicates that FDI has a significant impact on the HDI in Nigeria during the sample period.

Muhammad et. al.,(2010) conducted a study on the impact of globalization on Human Development Index in Pakistan for the time period 1975 to 2008. The study used secondary data for the analysis which is retrieved from SPDC Social Development report, Pakistan review 2005-06 and UNDP, Hand Book of Statistics of Pakistan Economy 2008-09, (published by State Bank of Pakistan) and State Bank Bulletin and world development indicator and international financial statistics (2009). The Statistics have been analyzed through Ordinary least squared (OLS) with HDI as dependent variable and ratio of FDI to GDP, real GDP growth rate along with export and import as independent variables. The coefficient of FDI is significant as anticipated, however the coefficient of real GDP- ratio is insignificant and has negative sign because of income inequality in the case of Pakistan.

Reiter and Steensma,(2010) analyzed Human Development and Foreign Direct Investment in Developing Countries with special reference of Influence of FDI Policy and Corruption for the time period 1990 to 2009. The study used secondary data for the analysis is collected from the final report of the United Nations-hosted conference on development (UNCTAD). The results found that FDI inflows are more strongly positively related to improvement in human development when FDI policy restricts foreign investors from entering some economic sectors and when it discriminates against foreign investors relative to domestic investors. The relationship between FDI and improvement in human development is also more strongly positive when corruption is low.

Sharma and Gani, (2004) conducted a study on the effects of Foreign Direct Investment on Human Development for the time period for middle and low-income countries for the period from 1975 to 1999. The study used secondary data for the analysis which is collected from world bank indicator (2002) and Human Development Report 1999 and 2002 (United Nations Development Programme, 1999 and 2002)

and used Regression model for the analysis. The results of a fixed effects model indicate a positive effect of foreign direct investment on human development for both the groups of countries.

Vinh et al.,(2017) analyzed a study on the effects on foreign direct investment on Inequality-adjusted HDI (IHDI) in Asian countries for the time period 2013 to 2015. The data is collected from the official website of United Nations Development Programme (UNDP) and database of World Development Indicator on the website of World Bank and used correlation test for the analysis. The results found that FDI did not significantly affect human development in Asian countries in general. FDI did raise the inequality in income, but it helped to reduce the inequality in education. In addition, the higher institutional quality in general did raise the countries human development, and among sub-indices of institutional quality, better political situation and law did also lift up the human development levels of countries.

RESEARCH GAP

While some studies analyzed the relationship between Foreign Direct Investment with the constituents of Human Development Index, Inequality adjusted HDI, and globalization, the results however were mixed and hence inconclusive. The other studies, not only failed to find any direct relationship between the selected variables, but also no consensus is seen regarding the exact direction of causality between the variables. Apart from this, there were no recent studies in the Indian context which would clarify the relationship between the selected variables.

OBJECTIVE

The objective of the present study is to analyze the short-run and long-run impact of Foreign Direct Investment on the Human Development Index during the time period 1990 to 2022.

HYPOTHESIS

H0- There is no short-run and long-run relationship between Foreign Direct Investment and Human Development Index.

H1-There exists a short-run and long-run relationship between Foreign Direct Investment and Human Development Index.

DATA SOURCES

Annual time series data of Foreign Direct Investment is taken from the Handbook on Indian economy by the RBI and data for Human Development Index is sourced from World Development Indicators for the period 1990 to 2022. For empirical analysis, the variables are transformed into their natural logarithm to lessen the disturbing influence of the outliers in the extracted data. The data is then analyzed using E-views-10 statistical software.

METHODOLOGY

The methodology of the paper is explained below. This includes the explanation of various factors affecting the variables (dependent and independent) used for the study, data collection and model specification.

i. Variables' Explanation

1. Dependent Variable: Human Development Index

The HDI is a composite index including various dimensions: health, education and standard of living, each of which is affected by various factors.

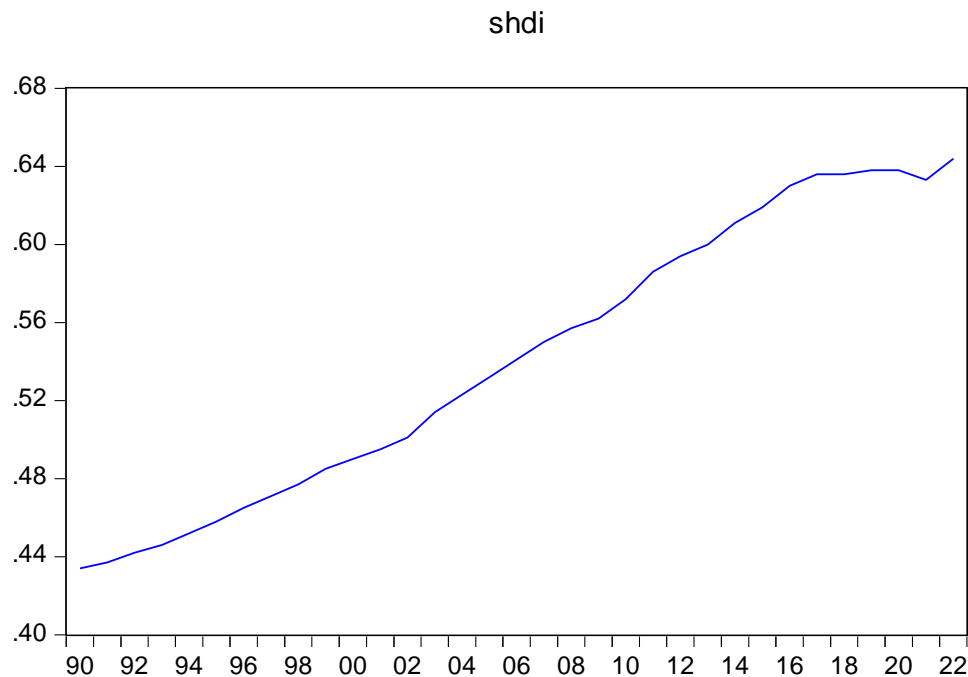
1.1 Health- This includes the measurement of life expectancy at birth, which is further affected by people's access to healthcare services, malnutrition prevalent amongst children, access to sanitation and clean water along with the risk to contract water and air borne diseases.

1.2 Education- As per the UNDP methodology, the education is measured with the measurement of mean years of schooling and expected years of schooling. Apart from this, various other factors, such as quality of education, high school enrollment rates, equality of opportunity amongst genders in the context of access to education, etc. also play a vital role in determining the level of education in the country.

1.3 Standard of Living- Traditionally, it is measured using the GNI per capita, however certain factors, namely economic equality, employment opportunities, access to financial services, and infrastructure development contribute to the upliftment of standard of living of the people in an economy.

Furthermore, various factors like political stability, social inclusion, population growth, environmental sustainability, and many more affect the levels human development in an economy. However, for the analysis, we have considered the composite value of HDI, which is a geometric mean of Education Index, Life Expectancy Index and Income Index.

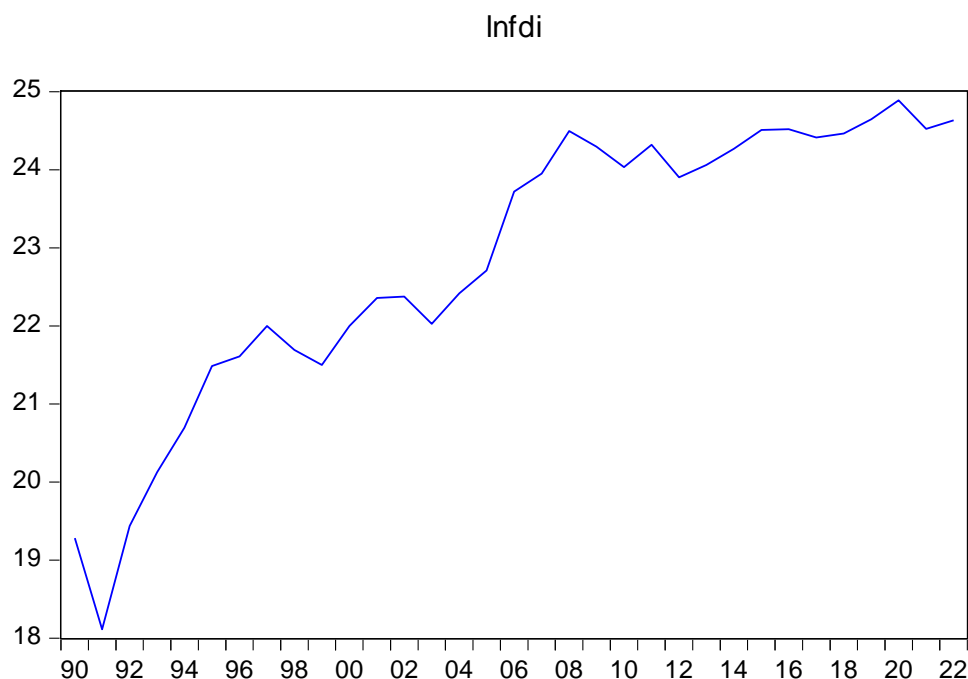
The graph given below shows the trend in HDI observed over the study period.



2. Independent Variable: Foreign Direct Investment Inflows

FDI refers to attracting funds into the home country from other countries with an intention to foster business in the home country. It is different from portfolio investment, which is concerned with establishing long-term interests, such as acquisition of ownership rights, expansion of business activities in a foreign market, and establishing operations in a foreign country.

The observed trend of FDI during the study period is shown in the graph below.



There are various factors which affect FDI in the long run as well as the short run.

2.1 Short-run Factors

- **Exchange Rate Fluctuations:** Abrupt changes in the exchange rate can significantly affect the profitability of foreign investments. For instance, a currency appreciation of the host country, can make exports dearer, while making the imports cheaper, which can drastically reduce the foreign-owned companies' competitiveness operating in the host country.
- **Global Economic Conditions:** Global economic conditions, such as downturns, recessions, financial crises can significantly cause a decline in FDI flows. This is so because global demand for goods and services falls during economic slowdowns, thereby causing a reduction in the profitability of foreign investments as well. Also, a situation of financial crises can tighten credit conditions, thus making the process of obtaining foreign investments difficult and expensive for the companies.
- **Government Policy Changes:** Changes in Government policies of a country can significantly affect its inducement to attract foreign investment. This may include changes in tax laws, regulations, and trade agreements. For instance, tax incentives, such as lower corporate tax rates or tax holidays offered by Governments help in attracting foreign investment. However, new regulations including increasing taxes can increase the costs and reduce the ease of doing business in a country, thereby deterring foreign investors.
- **Commodity Prices:** The profitability of resource-based FDI projects (mining or oil extraction) is significantly affected by fluctuations in commodity prices. A rise in the commodity prices may increase the profitability of such projects, thereby attracting more foreign investment. Whereas falling commodity prices can negatively affect the profitability of resource-based FDI projects, which may potentially reduce investments or may lead to project cancellations.
- **Political Instability:** Civil unrest, wars, or political upheaval can be a risk to foreign investors. Such uncertainties can erode investor confidence, and may economically damage the host country by restricting new investments and potentially leading to capital flight.
- **Interest Rates:** The FDI projects are also affected by changes in the cost of borrowing. Rising interest rates can increase the cost of borrowing for foreign investors, reducing the profitability of their projects. Whereas a fall in the interest rates can make foreign investments profitable for the companies by reducing their cost of borrowing funds.

2.2 Long run factors

- **Market Size and Growth:** A country with substantially large consumer base and expanding economy is usually more attractive to foreign investors. This is because a large market offers multiple opportunities for higher returns on investment.
- **Natural Resources:** Foreign investors often prefer investing in countries which are abundant in natural resources (minerals, oil, and gas). Apart from this, resources that are imperative for global industries (e.g., rare earth minerals) can significantly attract more FDI, as investors seek to exploit such resources for their own benefit.
- **Infrastructure:** A well-developed infrastructure, such as efficient transportation, reliable energy supply, and robust telecommunication facilities can reduce operational costs and enhance

productivity, which are ultimately essential for businesses to operate effectively. This would make a country more attractive to foreign investors.

- **Human Capital:** More investment in education and training programs by the Government can contribute to development of human capital, thereby making a country more attractive to foreign investors. This is so because a skilled and educated workforce can contribute to higher productivity, innovation, and competitiveness, and can prove to be an asset for foreign investors.
- **Technological Development:** A strong base for research and development in a country is more likely to attract technology-intensive FDI. The prevalence of advanced technology in a country along with the presence of efficient research institutions, universities, and technology parks can foster innovation and attract FDI.

ii. Data Analysis

To check for the relationship between the selected variables, ARDL Bounds testing is employed to check for the existence of a long-run relationship between FDI and HDI. The period from 1990 to 2022 is selected for the study. The following steps are performed for the estimation procedure.

First of all, the presence of a unit root in the variables is checked using the Augmented Dickey-Fuller test (ADF), which was given by D.A. Dickey. Based on the results, ARDL Bound testing approach is used in the next step to investigate the long-run relationship between the variables.

Next, Error Correction Model is applied to test the stability of the variables. Finally, the Residual testing is done to check for the presence of serial correlation, heteroscedasticity and normality in data.

RESULTS

i. Long Run Analysis- A Bound Testing Approach

For empirical analysis of the variables in the long -run, Foreign Direct Investment (FDI) is taken as an independent variable and Subnational Human Development Index (SHDI) is taken as the dependent variable, which includes three indicators – longevity, education and standard of living, which are measured using life expectancy at birth, mean and expected years of schooling, and GNI per capita, respectively. The equation of model is as follows:

$$\text{SHDI} = f(\text{FDI}) \quad (1)$$

Transforming the equation (1) into a linear equation i.e.

$$\text{SHDI}_t = \alpha_0 + \alpha_1 \text{FDI} + \varepsilon_{1t} \quad (2)$$

Where, α_0 , is a constant, α_1 is a coefficient of FDI and measures the effect of a one-unit change in the FDI on SHDI in the Indian economy, holding other factors as constant and ε_{1t} is the error term in the

model. FDI is transformed into its natural log, however the same process is not done for SHDI since it is already a composite index.

All the variables are transformed into their natural logarithms. The final description of the model is presented in succeeding equation:

$$SHDI_t = \alpha_0 + \alpha_1 \ln FDI + \epsilon_{1t} \quad (3)$$

Since, it is required by the ARDL model for the variables to be stationary at either I(0) or I(1) levels, the stationarity of the variables is checked using the Unit root tests. The unit root is checked at both level and at the first difference level, using the ADF and PP test. The null hypotheses in the ADF and PP tests state that both SHDI and lnFDI have a unit root i.e. the series is non-stationary. The results are exhibited in table 1 and table 2:

Table 1: Unit Root ADF, SHDI

Tests	ADF
Level (Intercept)	0.8790
Level (Trend and Intercept)	0.5825
1 st Difference (Level)	0.0116
Source: Computed	

Table 2: Unit Root ADF, FDI

Tests	ADF
Level (Intercept)	0.8068
Level (Trend and Intercept)	0.0991
1 st Difference (Level)	0.0000
Source: Computed	

The results indicated that SHDI is stationary at I(1), as depicted in Table 1. The ADF test gives a p-value of 0.0116, which is statistically significant. The ADF test results also indicated that FDI is stationary at I(1), as shown in Table 2 i.e. at a p-value of 0.0000, measured at both level and intercept. The results qualify for the usage of ARDL model to deduce the long-run relationship between the variables.

In the next step, the existence of a long-run relationship is examined by using the Bounds test approach. Following is the ARDL equation of the model, when SHDI is a dependent variable:

$\Delta \ln(\text{SHDI})_t = \alpha_0 + \sum_{j=1}^n b_j \Delta(\text{SHDI})_{t-1} + \sum_{j=0}^n c_j \Delta \ln(\text{FDI})_{t-1} + \delta_1 \ln(\text{SHDI})_{t-1} + \delta_2 \ln(\text{FDI})_{t-1} + \varepsilon_{1t}$.
Where δ_1 and δ_2 are the long-run multipliers in the ARDL model, while b_j and c_j are the short-term dynamic coefficients. The null hypothesis, H_0 : $\delta_1 = \delta_2 = 0$, which assumes no co-integration, is being tested against the alternative hypothesis, H_1 : $\delta_1 \neq \delta_2 \neq 0$, which suggests the presence of co-integration. Table 3 presents the outcomes of the Bounds test.

Table 3: F- Bounds test				
Significance	10%	5%	2.5%	1%
I(0)	3.02	3.62	4.18	4.94
I(1)	3.51	4.16	4.79	5.58
F-Statistic	4,309327			
Source: Computed				

According to the criterion, if the f-value is lower than the I(0) bound, null hypothesis cannot be rejected. However, if the f-value is higher than the I(1) bound, in that case null hypothesis can be rejected. This implies we accept the alternative hypothesis that there exists a long-run co-integration relationship between the variables. In case, the f-statistic falls between the bounds, the test results are said to be inconclusive.

Here, the ARDL Bounds test results indicate that the f-statistic value = 4.309327, while the I(1) Bound value = 4.16. This implies that the f-statistic value exceeds the I(1) Bound value at 5% level of significance. This suggests that a long-term relationship exists between the variables. The subsequent phase will involve the analysis of short-term through the utilization of Error Correction Method.

Error Correction Method.

In the next step, Error Correction Model is applied to test for stability in the observed variables.

Table 4: ARDL, Estimation of ECM, HDI as DV	
HDI (-1)	ECT
0.278648 (0.1322)	-0.040165 (0.0009)
Source: Computed	

The results of the ECM suggests that as the coefficient of the lagged dependent variable, $D(\text{SHDI}(-1))$, is 0.278648, but it is not statistically significant at the conventional 5% level ($p\text{-value} = 0.1322$). This suggests that the previous year's change in SHDI does not have a significant short-run impact on the current year's change in SHDI.

However, the coefficient of the error correction term, $CointEq(-1)$, is -0.040165 and is statistically significant (p -value = 0.0009). This negative and significant coefficient indicates the presence of a long-run equilibrium relationship. Specifically, about 4% of the disequilibrium in SHDI from the previous year is corrected in the current year. This implies that while short-term fluctuations may occur, there is a tendency for SHDI to revert back to its long-run equilibrium level.

In short, while the short-run dynamics do not show a significant impact of the previous year's SHDI change on the current change, the significant and negative error correction term, along with the F-Bounds test result, confirms the existence of a statistically significant long-run equilibrium relationship for SHDI in this model.

Residual Testing

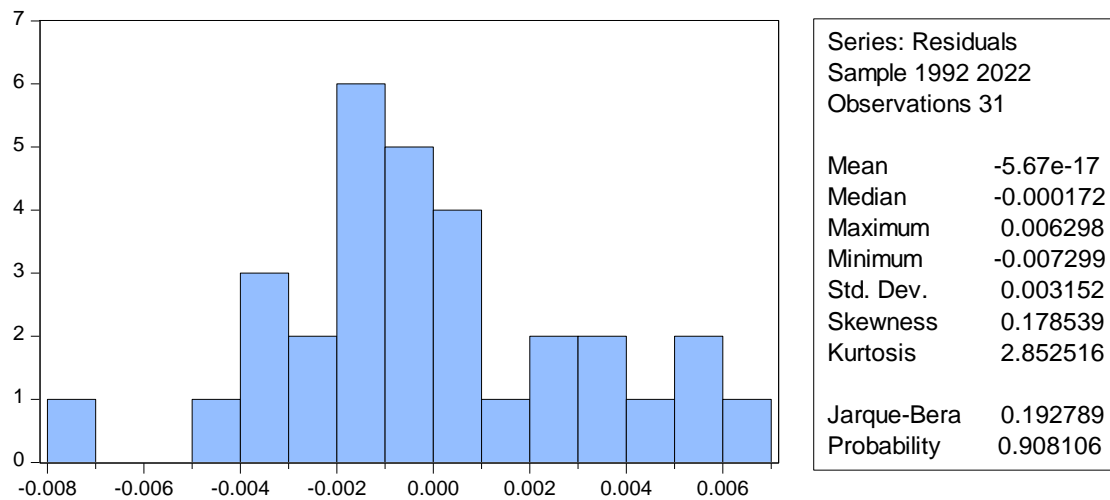
A Residual testing of the model has been done to check for the presence of heteroscedasticity and serial correlation. The results presented in tables 5 and 6 indicate that the model is well fitted and is free from both problems. It is evident from the p -values, which stand at 0.9545 and 0.521 , respectively, and is above the 5% level of significance. Thus, the model is a good fit for analysis.

Table 5: Breusch-Godfrey Serial Correlation LM Tests			
Adjusted R-square	R-square		Prob
-0.299075	0.125327		0.9545
Source- computed			

Table 6: Breusch-Godfrey Heteroskedasticity Tests	
F-statistic	Prob.
2.572361	0.521
Source- computed	

ii. Normality test

A normality test is used to ascertain if the dataset used for analysis is drawn from a population which follows a normal distribution. For the purpose of this study, Jarque-Bera Test to check skewness and kurtosis, and Shapiro Wilk test is used to check normality of the data used.



The p-value as revealed by the test results is $0.908106 > 0.05$, which indicates that the data is likely to be normally distributed. The coefficient of Jarque Bera Test = 0.192789, which indicates that the skewness and kurtosis of the data are close to that of a normal distribution (lower the better).

Conclusion

The present study focuses on the role of FDI as catalyst of human development in India. It delves into the existence of a long run as well as a short run relationship between Foreign Direct Investment and Human Development Index for a period of 32 years (1990-2022) in India. To check for the suitability of the model, firstly a Unit Root Test was conducted to check for the stationarity of the variables. Using the Augmented Dickey Fuller (ADF) and Phillips-Perron (PP) tests, the results confirmed the stationarity of both the series at first-difference level, indicating the suitability of the model.

To check for the presence of a long-run relationship between the variables, the ARDL Bounds test was conducted, which indicated that the variables (FDI and SHDI) were integrated at 5% level of significance holding a F-Statistic value of 4.0309327. This indicated the presence of a positive long-term influence of FDI on SHDI. And applied Error Correction Form for analysing the short-run relationship and the results found the existence of short-run relationship between the variables. At the end, the variables were to be assessed for the presence of heteroscedasticity and serial correlation. Therefore, the residuals were tested to check for the robustness of the model. The Breusch-Godfrey LM test and Breusch-Pagan-Godfrey test was conducted to check for the presence of serial correlation and heteroscedasticity. The results indicated the p-value = 0.1823 (Breusch-Godfrey LM test) and p-value = 0.6608 (Breusch-Pagan-Godfrey test), which indicated towards the absence of serial correlation and heteroscedasticity, further validating the model's validity.

Policy Implications

- I. Enhance programs like 'Skill India' to improve access to education and build a skilled workforce aligned with the needs of industries, attracting maximum FDI.
- II. Invest in and develop healthcare infrastructure to create a competitive workforce and reduce disparities in rural and underdeveloped regions.

- III. Prioritize the development of a robust digital infrastructure to boost both human development and attract more FDI opportunities.
- IV. Ensure FDI promotion strategies are in line with the UN's Sustainable Development Goals for holistic and sustainable growth.
- V. Encourage PPPs, particularly in sectors like renewable energy, to balance FDI with environmental sustainability.
- VI. Establish stronger linkages between educational institutions and industries to ensure curriculum relevance and enhance graduate employability in FDI-intensive sectors.
- VII. Simplify and make transparent the regulatory environment to attract and retain FDI, while ensuring these frameworks also promote human development outcomes.
- VIII. Support research and development activities to foster innovation, attract higher-quality FDI, and create high-skilled jobs that contribute to human capital development.
- IX. Design policies that ensure the benefits of FDI-driven growth are distributed equitably across different regions and socioeconomic groups, contributing to broader human development.
- X. Actively target and incentivise FDI that adheres to environmental and social sustainability standards, aligning economic growth with long-term human well-being.

On behalf of all authors, the corresponding author states that there is no conflict of interest.

A. References

1. Afza, T., & Nazir, M. S. (2007). Economic competitiveness and human resource development: An FDI perspective. *Pakistan Economic and Social Review*, 167-180.
2. Ahmad, F., Draz, M. U., Su, L., Ozturk, I., Rauf, A., & Ali, S. (2019). Impact of FDI inflows on poverty reduction in the ASEAN and SAARC economies. *Sustainability*, 11(9), 2565.
3. Arcelus, F. J., Sharma, B., & Srinivasan, G. (2005). Foreign capital flows and the efficiency of the HDI dimensions. *Global Economy Journal*, 5(2), 1850036.
4. Cao, T. H. V., Trinh, Q. L., & Nguyen, T. A. L. (2017, June). The effect of FDI on Inequality adjusted HDI (IHDI) in Asian countries. In *Vietnam Economist Annual Meeting 10th*.
5. Castro, C., & Nunes, P. (2013). Does corruption inhibit foreign direct investment?. *Política*, 51(1), 61-83.
6. Colen, L., Maertens, M., & Swinnen, J. (2012). Foreign direct investment as an engine for economic growth and human development: A review of the arguments and empirical evidence. *Foreign Direct Investment and Human Development*, 70-115.
7. Gökmenoğlu, K. K., Apinran, M. O., & Taşpınar, N. (2018). Impact of foreign direct investment on human Development Index in Nigeria. *Business and Economics Research Journal*, 9(1), 1–13. <https://doi.org/10.20409/berj.2018.90>

8. Ifeosame, S. N. (2023). Foreign Capital Inflow and Human Development Index in Nigeria. *GPH-International Journal of Business Management*, 6(11), 186-205.
9. Kaukab, M. E., & Surwandono, S. (2021). Convergence of Human Development Index: case study of foreign direct investment in ASEAN. *Business: Theory and Practice*, 22(1), 12-17.
10. Makki, S. S., & Somwaru, A. (2004). Impact of foreign direct investment and trade on economic growth: Evidence from developing countries. *American journal of agricultural economics*, 86(3), 795-801.
11. Muhammad, S. D., Majeed, S., Hussain, A., & Lal, I. (2010). Impact of globalization on HDI (Human Development Index): case study of Pakistan. *SSRN Electronic Journal*. https://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID1684597_code1217563.pdf?abstractid=1684597&mirid=1
12. Reiter, S. L., & Steensma, H. K. (2010). Human development and foreign direct investment in developing countries: the influence of FDI policy and corruption. *World development*, 38(12), 1678-1691.
13. Reserve Bank of India. (n.d.). <https://data.rbi.org.in/>. Retrieved January 15, 2025, from <https://data.rbi.org.in/>
14. Santosa, W. (2014). Analysis of the impact of Foreign direct investment on Social development in Indonesia and other ASEAN countries. *University, T.(ed.)*.
15. Sharma, B., & Gani, A. (2004). The effects of foreign direct investment on human development. *Global Economy Journal*, 4(2), 1850025. <https://doi.org/10.2202/1524-5861.1049>
16. World Bank Open Data. (n.d.). World Bank Group. Retrieved January 15, 2025, from <https://databank.worldbank.org/source/world-development-indicators>