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An Empirical Analysis of the Factors Influencing Foreign Direct Investment in India

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Introduction

In the post-globalization era, foreign direct investment has become a cornerstone of global economic development and integration. It serves as a powerful driver of economic growth, technological advancement, and enterprise restructuring, while also alleviating pressures on capital accounts. As Holland and Pain (1998) emphasized, foreign direct investment offers numerous economic benefits to host countries, including the infusion of capital, foreign exchange, and advanced technologies. Additionally, it enhances market competition and provides access to international markets. Recognizing these advantages, developing nations worldwide are actively competing to attract foreign direct investment by liberalizing their policies and offering various incentives such as tax breaks, trade liberalization measures, the establishment of special economic zones, and exclusive packages tailored for foreign investors. In 2024 alone, 78 countries implemented 146 changes to their foreign direct investment policies, with 76% of these changes aimed at fostering a more investor-friendly environment. Despite these concerted efforts, many developing countries have struggled to achieve significant success in attracting foreign investments. This raises a critical question: what are the true factors that influence foreign direct investment inflows? While there is general consensus on some key economic variables as primary determinants, the understanding remains incomplete, as earlier predictions have often been either insufficient or inaccurate. As a result, empirical studies on the determinants of foreign direct investment have frequently yielded inconsistent and conflicting findings. This highlights the need for further empirical research using well-defined variables and updated datasets to gain a more comprehensive and precise understanding of the factors driving foreign direct investment inflows.

In India, various measures have been introduced to attract foreign direct investment, with a particular focus on key sectors to stimulate economic growth. Efforts have been made to improve the overall investment climate by implementing initiatives designed to facilitate investment. For instance, in the renewable energy sector, specific incentives have been provided to encourage investments that align with climate goals. The introduction of the Space Activity Bill represents a significant milestone in defining and regulating foreign

direct investment in India's space sector, fostering innovation and private sector participation. Additionally, the telecom sector underwent a major reform with the government permitting 100% foreign direct investment, creating new opportunities for foreign investors. In the insurance sector, the foreign direct investment limit was raised to 74%, enabling greater foreign participation and capital inflows. Furthermore, initiatives have been launched in the textile sector to promote foreign direct investment, reflecting the government's commitment to strengthening this vital industry.

In 2022, several notable trends emerged in the global foreign direct investment landscape. China experienced a significant decline in inward foreign direct investment, reaching historically low levels and signaling a downturn in foreign investor interest. In the Asia-Pacific region, while foreign direct investment inflows were expected to show modest growth, they remained below pre-COVID-19 pandemic levels, indicating a slow recovery in investment activity. Globally, foreign direct investment witnessed a 2% decline, with total investments dropping to $1.3 trillion in 2023. This underscores the persistent challenges in attracting and sustaining foreign investments worldwide, even as countries continue to implement measures to create more favorable investment environments.

In India, various measures have been introduced to attract foreign direct investment, with a particular focus on key sectors to stimulate economic growth. Efforts have been made to improve the overall investment climate by implementing initiatives designed to facilitate investment. For instance, in the renewable energy sector, specific incentives have been provided to encourage investments that align with climate goals. The introduction of the Space Activity Bill represents a significant milestone in defining and regulating foreign direct investment in India's space sector, fostering innovation and private sector participation. Additionally, the telecom sector underwent a major reform with the government permitting 100% foreign direct investment, creating new opportunities for foreign investors. In the insurance sector, the foreign direct investment limit was raised to 74%, enabling greater foreign participation and capital inflows. Furthermore, initiatives have been launched in the textile sector to promote foreign direct investment, reflecting the government's commitment to strengthening this vital industry.

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in attracting and sustaining foreign investments worldwide, even as countries continue to implement measures to create more favorable investment environments.

Review of related literature

Nagarjun, B. (2022) in his study titled The Impact of Make in India on Foreign Direct Investment: An Analytical study, examines the effects of the Make in India initiative on foreign direct investment in India. The Make in India program was launched by Prime Minister Narendra Modi on September 25, 2014, with the aim of encouraging global businesses to invest in India and manufacture their products within the country. This initiative is a strategic effort by the Indian government to position India as a global manufacturing hub by attracting both international and domestic companies to set up production facilities locally. The program's core objectives include creating employment opportunities and promoting skill development among the Indian workforce. While foreign direct investment plays a significant role in the economy, it accounts for less than 8% of the total investment in the country. This underscores the importance of domestic investment as the primary driver of economic growth. For India to achieve a competitive edge and establish itself as a global leader in manufacturing, a systematic approach to evaluating and strengthening the manufacturing sector is essential. The study aims to analyze the impact of the Make in India initiative on foreign direct investment inflows and explore its potential to contribute to India's economic development. The research conducted a comparative analysis of average foreign direct investment inflows before and after the launch of the Make in India initiative. The findings revealed a notable increase in foreign direct investment inflows during the post-initiative period, indicating that the program has had a positive impact on attracting foreign investment. However, when foreign direct investment inflows are measured as a percentage of India's gross domestic product, the increase has not been substantial. This suggests that while the initiative has made progress in boosting foreign direct investment, there is still room for improvement in enhancing the proportion of foreign direct investment relative to the country's gross domestic product. Achieving this would be crucial for ensuring the long-term success of the Make in India program and its contribution to India's economic growth. The study highlights the need for continued efforts to strengthen the manufacturing sector, improve the investment climate, and align policies to attract higher levels of foreign direct investment in the future.

Shalini, S. (2020) in her article The Role of Foreign Direct Investment in India – An Overview, explores the significance of foreign direct investment in India's economic growth. Foreign direct investment plays a critical role in bridging the gap between domestic savings and investment, providing essential capital for sectors such as manufacturing, infrastructure, transportation, technology, productivity, and hospitality. By doing so, it helps integrate India's economy into the global market and drives progress in areas where

domestic resources may be insufficient. India's success in attracting record levels of foreign investment is a remarkable achievement, attributed to its vast market size, economic reforms, and strong growth rates. The country's openness to investment and its abundant economic opportunities have made it an attractive destination for global investors. Despite these advantages, India faces several challenges in fully opening its markets to foreign investors. Key obstacles include political instability, inadequate infrastructure, complex tax policies, corruption, and restrictive government regulations. These issues continue to hinder the country's ability to maximize the benefits of foreign direct investment. Shalini's article examines the trends and patterns of foreign direct investment inflows into India and analyzes its role in shaping the nation's economic landscape. The study aims to provide a comprehensive understanding of how foreign direct investment contributes to India's development while addressing the barriers that limit its full potential. By highlighting both the opportunities and challenges, the article underscores the need for policy improvements and structural reforms to create a more conducive environment for foreign investment and to unlock greater economic growth.

Gupta, Vrinda (2017) in her paper Exploring the Relation between Human Capital and Foreign Direct Investment – Indian Context, investigates the relationship between human capital and the distribution of foreign direct investment across Indian states, as well as its role in attracting foreign direct investment to India. The study conducts a national-level analysis covering the period from 1975 to 2013, which reveals that improvements in human capital do not significantly drive growth in foreign direct investment inflows. Similarly, the analysis finds that foreign direct investment inflows do not lead to substantial improvements in human capital. A panel regression analysis for the period 2000–2010 further supports these findings, showing that variations in human capital levels among states do not explain the differences in foreign direct investment distribution. Instead, factors such as market size (measured by State Gross Domestic Product), the availability of affordable labor, and reliable infrastructure, particularly power supply, play a more decisive role in determining how foreign direct investment is distributed across states. Based on these findings, the paper suggests that while both national and state governments should continue to invest in developing human capital, they must also focus on other critical areas to attract and distribute foreign direct investment more evenly. These include improving labor market conditions, strengthening physical infrastructure, and scaling up economic activities. By addressing these factors, policymakers can create a more conducive environment for foreign investment and ensure that its benefits are more evenly distributed across regions. The study highlights the need for a balanced approach that combines human capital development with targeted improvements in infrastructure and economic conditions to maximize the potential of foreign direct investment in driving India's growth.

Archana Upadhyaya (2016) in her research paper Foreign Direct Investment and Indian Economy explores the profound impact of globalization and liberalization on the global economy, with foreign direct investment emerging as one of the most significant outcomes. Foreign direct investment has become a vital instrument for fostering international economic integration and driving growth within economies. It serves as a critical link between investment and savings, helping to address the savings deficit that many developing countries, including India, often face. By attracting foreign direct investment, such economies can overcome limitations in domestic investment and accelerate economic growth. This paper aims to assess the impact of foreign direct investment on the Indian economy, particularly in the two decades following the implementation of economic reforms. It also investigates the challenges India encounters in positioning itself as a competitive destination for global foreign direct investment inflows. Additionally, the study examines the current landscape, role, and potential scope of foreign direct investment in India. The research delves into the effects of foreign direct investment on India's economy, analyzing both its advantages and disadvantages when implemented in the domestic market. On the positive side, foreign direct investment has contributed to economic growth, technology transfer, job creation, and infrastructure development. However, it also presents challenges such as potential exploitation of resources, unequal distribution of benefits, and vulnerability to global economic fluctuations. By providing a detailed analysis of these aspects, the paper seeks to offer a comprehensive understanding of how foreign direct investment influences India's economic development. It also highlights the implications of foreign direct investment for India's future growth, emphasizing the need for strategic policies to maximize its benefits while mitigating potential drawbacks. The study underscores the importance of creating a favorable investment climate, improving infrastructure, and addressing regulatory hurdles to enhance India's attractiveness as a global foreign direct investment destination.

Alfaro, Laura, and Chauvin, Jasmina (2017) in their paper Foreign Direct Investment, Finance, and Economic Development, explore the impact of foreign direct investment on host economies, with a particular focus on understanding how foreign direct investment influences economic development and the role of local financial markets in maximizing its potential benefits. The paper begins by defining foreign direct investment and discussing general theories related to its various types and the factors that drive it. Adopting a host-country perspective, the authors review key insights from firm-level research on multinational corporations while maintaining a broader focus on the macroeconomic effects of foreign direct investment at the national level. The study emphasizes the critical role of financial conditions in host countries in shaping the outcomes of foreign direct investment. It examines how these conditions influence foreign direct investment -related capital inflows, affect the operations of foreign firms, and determine the extent to which productivity spillovers from foreign direct investment benefit local firms. The authors pay

special attention to developing countries, analyzing how their financial systems impact the overall contribution of foreign direct investment to economic development. By doing so, the paper highlights the importance of well-functioning financial markets in enabling host countries to fully harness the potential benefits of foreign direct investment, such as technology transfer, job creation, and enhanced productivity. The research underscores the need for developing countries to strengthen their financial systems to create an environment conducive to attracting and effectively utilizing foreign direct investment. It also suggests that policymakers should focus on improving financial infrastructure, enhancing regulatory frameworks, and fostering economic stability to maximize the positive impact of foreign direct investment on economic growth and development. Through this comprehensive analysis, the paper provides valuable insights into the complex relationship between foreign direct investment, finance, and economic development, particularly in the context of developing economies.

Potential variables determining Foreign Direct Investment inflows

This study explores various potential variables that influence foreign direct investment inflows, drawing on insights from existing literature. These variables are grouped into four primary factors: the growth rate of gross domestic product, exports, the index of industrial production, and inflation. Each of these factors plays a significant role in shaping foreign direct investment flows, as they collectively reflect the host country's economic performance, trade dynamics, industrial activity, and price stability. A strong gross domestic product growth rate signals a robust and expanding economy, making the country more attractive to foreign investors. Export levels indicate the nation's integration into global markets, while the index of industrial production highlights the strength and potential of its manufacturing sector. Lastly, inflation rates provide insights into the country's economic stability, as lower inflation fosters a predictable business environment, encouraging long-term investments. Together, these factors offer a comprehensive framework for understanding the determinants of foreign direct investment inflows.

Gross Domestic Product

Gross Domestic Product serves as a vital indicator for assessing a country's economic performance and is widely recognized as a significant factor influencing foreign direct investment inflows. A higher gross domestic product growth rate signifies a thriving and expanding economy, making it more appealing to foreign investors looking for profitable opportunities. Consistent gross domestic product growth reflects rising market demand, enhanced business prospects, and increased consumer purchasing power, all of which contribute to a conducive environment for foreign investment. Moreover, a strong gross domestic product growth rate indicates macroeconomic stability, which boosts investor confidence and reduces perceived risks. Countries with robust gross domestic product growth are often viewed as attractive destinations for long-term investments, as they offer the potential for higher returns due to expanding industrial activities and improving living standards. In this way, gross domestic product growth plays a critical role in shaping

foreign direct investment inflows by providing foreign investors with assurance of economic stability and future growth prospects.

Exports

Exports are a crucial factor in shaping foreign direct investment inflows, as they highlight a country's active participation in global trade. A robust export performance demonstrates the competitiveness of domestic industries on the international stage, making the host country an appealing destination for foreign investors. Consistent growth in exports signals a well-established industrial base, efficient production systems, and access to global markets—key attributes that attract foreign businesses aiming to expand their operations. Additionally, higher export levels contribute to a favorable balance of payments, strengthen foreign exchange reserves, and reduce economic risks, thereby boosting investor confidence. Countries with a thriving export sector are often considered ideal for setting up export-oriented production facilities, allowing foreign investors to leverage existing trade networks and cost-effective production opportunities. As a result, export performance plays a pivotal role in determining foreign direct investment inflows, offering investors the chance to access international markets while benefiting from the host country's trade-friendly environment.

Inflation

Inflation is a critical economic factor that plays a significant role in influencing foreign direct investment inflows. It reflects the level of price stability within a country, directly impacting business costs and the potential profitability of investments. A moderate and stable inflation rate is generally viewed as favorable, as it signals a well-managed economy with predictable pricing, reducing uncertainty for foreign investors. In contrast, high inflation can diminish purchasing power, raise production costs, and create economic instability, discouraging foreign investments due to increased risks. Moreover, volatile inflation rates can lead to fluctuations in currency exchange rates, complicating long-term investment planning for foreign businesses. On the other hand, deflation or excessively low inflation may indicate weak demand and economic stagnation, deterring investors seeking growth opportunities. Therefore, maintaining a stable inflation rate is essential for attracting foreign direct investment, as it fosters an environment of economic predictability and minimizes the perceived risks associated with investing in the host country.

The Index of Industrial Production

The Index of Industrial Production is a crucial economic indicator that measures the performance of the industrial sector and significantly influences foreign direct investment inflows. An upward trend in the Index of Industrial Production reflects heightened industrial activity, increased production levels, and growing economic demand, all of which create a favorable environment for foreign investors. Countries with a robust industrial base are often preferred by foreign firms, as they offer access to reliable infrastructure, skilled labor, and efficient supply chains. Additionally, a higher Index of Industrial Production indicates the

availability of raw materials, technological progress, and enhanced production capabilities, which are critical for the success of foreign investments. Consistent growth in industrial production also signals economic stability, making the host country an appealing destination for long-term business operations. As a result, the Index of Industrial Production serves as a key factor in shaping foreign direct investment inflows, offering valuable insights into the industrial strength and overall economic prospects of the host country.

Exchange rate of foreign direct investment

The exchange rate is a critical factor influencing foreign direct investment inflows, as it directly impacts the cost and profitability of investments for foreign firms. A stable and competitive exchange rate offers foreign investors greater financial predictability and minimizes risks associated with currency fluctuations. When the local currency depreciates, it can reduce the initial investment costs, making the host country more attractive to foreign investors. However, excessive exchange rate volatility can discourage investment due to heightened uncertainty and the potential for financial losses. Furthermore, a favorable exchange rate boosts the competitiveness of domestic goods in global markets, encouraging foreign companies to invest in export-driven industries. As a result, a well-managed exchange rate policy is essential for attracting foreign direct investment, as it creates a stable financial environment and supports long-term investment decisions.

Methodology of the present study

Objectives and database of the present study

The objective of this research study is to analyze the determinants of Foreign Direct Investment in India. The study focuses on key macroeconomic variables, including the aggregate Gross Domestic Product growth rate, exports, inflation, and the index of industrial production, as independent explanatory factors, with foreign direct investment inflows serving as the dependent variable. The research covers the period from 2015-16 to 2022-23, utilizing secondary data sourced from the Reserve Bank of India database. The data, presented in Table 1, provides a comprehensive basis for understanding the relationship between these macroeconomic indicators and foreign direct investment inflows in the Indian context.

Hypotheses of the study

To achieve the objectives of the study, the following hypotheses have been formulated:

Ho1: The aggregate growth rate of gross domestic product has no significant impact on the inflow of foreign direct investment in India.

Ho2: Export performance does not significantly influence the inflow of foreign direct investment in India.

Ho3: Inflation does not have a significant effect on the inflow of foreign direct investment in India.

Ho4: The Index of Industrial Production does not significantly affect the inflow of foreign direct investment in India.

Ho5: The real effective exchange rate has no significant impact on the inflow of foreign direct investment in India.

These hypotheses aim to test the relationship between key macroeconomic variables and foreign direct investment inflows, providing a framework for analyzing their influence on foreign investment trends in India.

Table-1
Relationship between these macroeconomic indicators and foreign direct investment inflows

YEAR	AGG GR GDP	FDIINF	INF	IIP	EXP	REER
2015-2016	8.00	55.56	4.95	3.4	19.81	100.003
2016-2017	8.26	60.22	3.33	4.4	19.16	99.484
2017-2018	6.80	60.97	3.94	4.2	18.79	101.458
2018-2019	6.45	62.00	3.73	3.8	19.93	94.190
2019-2020	3.87	74.39	6.62	0.8	18.66	94.878
2020-2021	-5.78	81.97	5.13	8.5	18.68	88.458
2021-2022	9.69	84.84	6.70	11.4	21.40	87.048
2022-2023	6.99	71.36	5.65	5.3	23.20	85.929
2023-2024	7.58	70.95	5.48	5.9	21.89	83.649

A multiple regression analysis was performed to determine the primary factors influencing foreign direct investment in India. In this model, foreign direct investment in India serves as the dependent variable, while the independent variables consist of the aggregate growth rate, foreign direct investment inflows, and wholesale price index for inflation, index of industrial production exports, and real effective exchange rate. To ensure the reliability of the results and avoid spurious conclusions, the dataset was examined for stationarity. This is crucial because regression analysis involving non-stationary time series data can often produce misleading outcomes. The augmented dickey-fuller test, with a one-period lag, was employed to assess stationarity. The ordinary least squares method was used for estimating the regression model.

Variables	Coefficient	Standard Error	t -Stat	Probability
AGG GR GDP	-0.4169	9.8891	1.2135	0.2643
INF	0.0555	1.2898	0.1472	0.8871
IIP	-0.1063	3.2751	0.2822	0.7860
EXP	0.4461	1.5599	1.3187	0.2288
REER	0.1668	7.0774	0.4475	0.6687

The regression results reveal that the model accounts for 88.5% of the variation in the dependent variable, foreign direct investment. The coefficient of determination (R^2) is 92.5%, indicating that 92.5% of the changes in foreign direct investment can be collectively attributed to the independent variables, including

the aggregate gross domestic product growth rate, Index of Industrial Production, inflation, and exports. This suggests that these factors play a significant role in explaining the fluctuations in foreign direct investment levels.

Conclusion

The aim of this study was to determine the key factors that significantly influence foreign direct investment inflows into India. The results reveal that none of the examined variables—aggregate gross domestic product growth rate, inflation, index of industrial production, and exports—have a statistically significant impact on foreign direct investment inflows. As a result, the null hypotheses (Ho1, Ho2, Ho3, Ho4, and Ho5) are accepted. Despite this, the research underscores the importance of critical macroeconomic factors, such as growth rate, inflation, industrial production, and exports, in shaping India's domestic business environment and enhancing its global credibility. These factors are essential for attracting higher foreign direct investment inflows. Therefore, it is crucial for the government and the Reserve Bank of India to maintain effective management of these macroeconomic variables to ensure a consistent and increased flow of foreign direct investment in the future.

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