

Investment Flows and Growth Performance: A Study of India's FDI-Development Linkages

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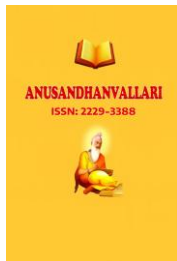
Abstract

Foreign Direct Investment (FDI) has emerged as a pivotal driver of global economic integration, serving as a vital instrument for accelerating economic growth, structural transformation and modernization. In the Indian context, understanding the evolution of FDI inflows and their correlation with economic performance has gained prominence since the initiation of liberalization reforms in 1991. This study seeks to analyze the trends and patterns of FDI inflows into India from 1991–92 to 2022–23 and to examine their relationship with the nation's economic growth during the same period. Employing quantitative data sourced from the Reserve Bank of India (RBI), the Ministry of Statistics and Programme Implementation (MOSPI), the World Bank, and UNCTAD, the research investigates how policy reforms and economic liberalization have reshaped India's investment landscape. Key policy milestones—such as the introduction of the Goods and Services Tax (GST) and the “Make in India” initiative—have significantly bolstered investor confidence and stimulated growth across manufacturing, services and information technology sectors. The study further highlights regional investment disparities, revealing that metropolitan hubs such as Bengaluru, Mumbai, and Delhi attract the majority of foreign capital, while peripheral regions continue to lag behind. Empirical findings indicate that FDI inflows expanded remarkably from USD 0.8 billion in 1991–92 to nearly USD 82 billion by 2021–23, corresponding with notable improvements in macroeconomic indicators—GDP growth surged from 1.1% to 5.5%, inflation declined from 13% to 6.2% and employment generation increased from 0.5 million to 12 million during the same period. The analysis, implemented through Python-based econometric modelling, underscores a strong positive linkage between FDI inflows and economic growth.

Keywords: Foreign Direct Investment, Capital Inflows, Investment Patterns, Foreign Capital Formation, Economic Liberalization, Structural Reforms.

1. Introduction

Foreign Direct Investment (FDI) has emerged as a fundamental catalyst for economic growth and development across nations, particularly within emerging economies such as India. As one of the fastest-growing economies globally, India has progressively positioned itself as an attractive destination for foreign investors seeking opportunities in diverse sectors. FDI serves as a vital conduit for the transfer of foreign capital, advanced technology, managerial expertise and innovation, all of which collectively contribute to industrial expansion, productivity enhancement and overall economic modernization. The inflow of FDI not only strengthens a country's balance of payments but also stimulates domestic investment and fosters integration into global value chains.



Despite India's impressive trajectory of FDI inflows since the liberalization of its economy in 1991, there remains a limited and fragmented understanding of the specific mechanisms through which FDI influences economic growth. Although substantial empirical evidence underscores the positive association between FDI and economic performance, the distribution of these benefits across regions and sectors continues to be uneven. Major metropolitan areas such as Bengaluru, Mumbai and Delhi dominate the inflow of foreign capital, while rural and underdeveloped regions receive relatively minimal investment. Similarly, sectors like services and information technology tend to attract higher foreign participation compared to agriculture and manufacturing. These disparities raise concerns regarding inclusivity and balanced growth, thereby necessitating a comprehensive exploration of FDI's multifaceted impact.

Furthermore, questions persist regarding the long-term sustainability of FDI-led growth. While FDI enhances productivity and employment, it may also engender economic dependency, uneven regional development and potential environmental challenges. The global financial crisis of 2008 and subsequent economic disruptions highlighted the vulnerability of developing economies reliant on volatile foreign capital. Therefore, understanding whether FDI acts as a consistent and resilient driver of growth—or merely as a temporary stimulant—remains a critical research priority.

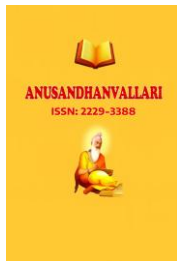
This study aims to address these gaps by empirically evaluating the direct and indirect linkages between FDI inflows and economic development in India from 1991–92 to 2022–23. It seeks to determine whether the relationship between FDI and growth is unidirectional, where foreign investment propels growth or bidirectional, wherein economic growth itself attracts higher FDI inflows. The analysis draws upon quantitative data from reliable sources such as the Reserve Bank of India (RBI), the Ministry of Statistics and Programme Implementation (MOSPI), the World Bank and UNCTAD, utilizing econometric techniques implemented through Python-based statistical modeling.

The research focuses on the impact of FDI across key domains, including employment generation, infrastructure development and technological transfer. It also provides a detailed sectoral and regional analysis, assessing disparities in investment patterns across manufacturing, services and agricultural sectors. By identifying areas where FDI has had limited developmental effects, the study aims to formulate policy recommendations that enhance the positive spillovers of foreign investment while mitigating adverse consequences such as income inequality and environmental degradation. Ultimately, this research aspires to contribute a nuanced understanding of how FDI can be harnessed as a sustainable engine of economic growth in India. It underscores the importance of designing strategic policies that promote inclusive, resilient and environmentally responsible investment practices, thereby ensuring that FDI continues to support India's long-term development aspirations in an increasingly interconnected global economy.

2. Literature Survey

This literature survey provides a comprehensive review of existing studies that explore the intricate relationship between Foreign Direct Investment (FDI) inflows and economic growth, with a particular focus on India and comparative insights from other developing economies. The reviewed works collectively emphasize the multidimensional role of FDI in fostering industrialization, technology transfer, employment generation and overall macroeconomic stability while also highlighting the contextual factors that shape its effectiveness.

Ai-Jun examined the sectoral relationship between FDI inflows and economic growth in Bangladesh using a panel data framework. Their findings underscore the pivotal importance of formulating and implementing sound policy measures to attract FDI across diverse sectors, thereby supporting balanced and



sustained national economic growth. The study concluded that effective policy implementation, coupled with macroeconomic stability, enhances the potential of FDI to contribute meaningfully to development outcomes.

Kumar analyzed the impact of FDI on India by comparing it with other top economies based on the World Bank's Gross Domestic Product rankings. Employing advanced econometric techniques, the study revealed a symmetrical relationship in which the Generalized Autoregressive Conditional Heteroskedasticity (GARCH) effects persist, while the influence of external spillovers or shocks remains minimal. Notably, China, Japan and the United Kingdom exhibited a significant positive correlation with India's FDI flows, whereas Germany and the United States demonstrated a negative association. These findings suggest that geopolitical and trade dynamics, alongside investor perceptions, significantly affect FDI trends in India.

Emeka explored the nexus between FDI and economic growth in Nigeria, emphasizing FDI's role in capital formation and technology transfer. Their research demonstrated that while FDI positively influences economic performance, its full potential is often constrained by governance inefficiencies, institutional weaknesses, policy inconsistencies and inadequate infrastructure. The study argued that strengthening institutional quality and policy transparency is essential for maximizing FDI's contribution to sustainable growth. Similarly, Singaram investigated the relationship between FDI, trade variables, inflation and economic growth in India using the Autoregressive Distributed Lag (ARDL) bounds testing approach. Their analysis identified a long-run cointegrating relationship among these variables. Moreover, the Error Correction Model (ECM) results indicated that FDI, imports, exports and inflation exert a marginal yet positive influence on India's economic growth over the long term. This finding aligns with the notion that trade liberalization and FDI collectively drive structural transformation and macroeconomic expansion. Gonfa evaluated the interplay between trade liberalization, FDI and economic growth across Asian economies. Their findings reinforced the positive contribution of FDI to growth but emphasized the need for future studies to incorporate broader dimensions of foreign capital inflows, such as portfolio investments and remittances, to capture a more holistic view of international financial integration. Mahida provided an in-depth analysis of the contribution of FDI to India's industrial sector and consumer demand. By examining industry trends, market segmentation, production capacities and consumer behavior, the study established that FDI exerts a profound influence on the Indian consumer durables market. The regression analysis yielded a high R-squared value of 0.85, indicating that existing policies and market patterns significantly explain industry growth. The authors suggested that FDI-driven industrial expansion not only enhances productivity but also shapes consumer demand through improved product availability and technological innovation. Jaiswal investigated the dynamic relationship between FDI and various macroeconomic variables (MEVs) using the ARDL model. Their findings indicated a positive long-term association between exports and FDI, while inflation and exchange rate volatility were found to exert a negative effect on FDI inflows. The study further revealed that GDP, as a dependent variable, is strongly influenced by explanatory factors such as trade openness, capital formation, and labor market dynamics. These insights highlight the complexity of FDI's interaction with multiple economic indicators.

Abdi extended this line of inquiry by estimating economic growth in terms of GDP (measured in constant 2015 US dollars) to assess the policy implications of trade liberalization and FDI. Their findings advocated for a comprehensive growth-stimulus strategy that harmonizes trade policies with investment promotion, underscoring the necessity of policy coherence for sustainable development. Pandey examined the relationship between financial development, FDI and economic growth across SAARC countries using World Bank and IMF data from 1988 to 2021. The empirical results confirmed a statistically significant positive correlation between FDI and GDP growth, reinforcing the critical role of foreign investment in shaping economic policy. However, the marginally negative impact of excessive financial expansion suggested that unregulated financial liberalization might undermine stability in emerging economies. Imam explored the interrelationships among FDI, flexible labor markets (FLMs) and economic development across 123 nations.

Their analysis demonstrated that the positive impact of FDI on growth is significantly magnified in economies characterized by flexible labor markets. This suggests that labor market adaptability enhances the absorptive capacity of host countries, allowing them to derive greater benefits from foreign investments.

These studies converge on the conclusion that FDI serves as a powerful engine for economic growth, contingent upon the strength of institutional frameworks, macroeconomic stability and policy coherence. However, regional disparities, sectoral imbalances and structural challenges continue to influence the extent to which FDI contributes to equitable and sustainable development. This literature underscores the need for further research that integrates cross-sectoral analysis, governance quality and environmental sustainability into the discourse on FDI and growth, particularly within the Indian context.

3. Research Methodology

This research will employ a quantitative methodology to evaluate the linkages between FDI inflows and growth economic in India. The study will utilize secondary data from credible sources such as the Reserve Bank of India, World Bank and International Monetary Fund, spanning the period from 1991 to 2023. To analyze the relationship, econometric techniques, including time-series analysis and vector auto-regression (VAR), will be deployed to assess the impact of FDI on GDP growth rates. A Granger causality test will be conducted to determine the directionality of the relationship. Control variables such as inflation rates, exchange rates, and domestic investment will be included to isolate the effects of FDI. The findings will be validated through robustness checks, including regression diagnostics and sensitivity analysis. This comprehensive approach aims to deliver insights into how FDI can be strategically harnessed to foster sustainable economic growth in India.

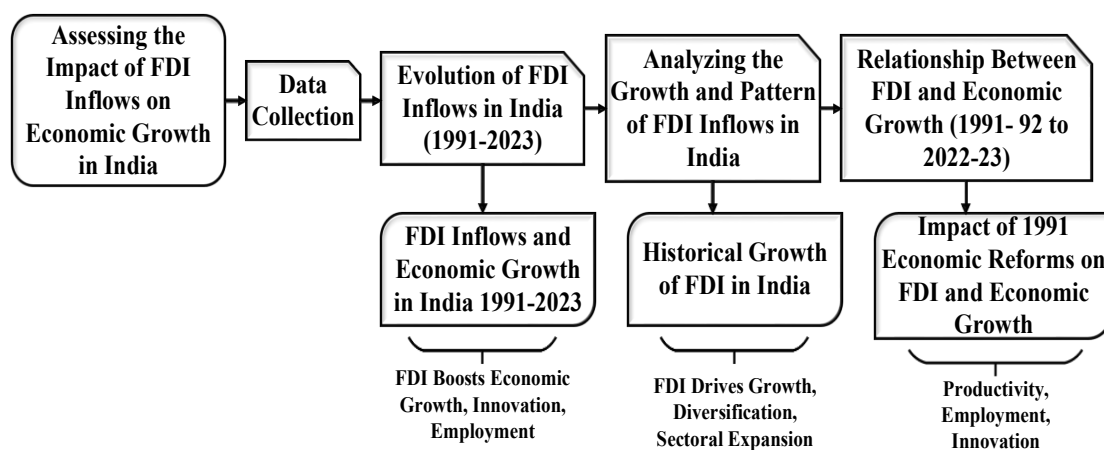
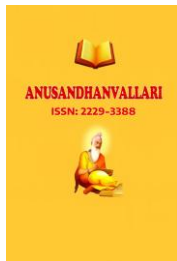


Figure 1: Block Diagram of the Proposed Work

Figure 1 shows the impact of Foreign Direct Investment (FDI) inflows on India's economic growth has been significant, particularly since the liberalization of the economy in 1991. FDI has played a crucial role in boosting economic growth, innovation and employment in India by driving sectoral diversification and technological advancements. Between 1991 and 2023, FDI inflows have evolved in response to both domestic economic reforms and global economic shifts, fostering growth in various sectors, including manufacturing, services and technology. The 1991 economic reforms, which included the deregulation of industries and the opening up of various sectors to foreign investment, marked a transformative period, enhancing India's



productivity and employment levels while also fostering innovation. Over the decades, FDI inflows have followed a growth trajectory, with significant peaks in the 2000s and 2010s and have continued to support India's economic development by facilitating capital flow, infrastructure development and knowledge transfer. The historical evolution of FDI in India reflects the country's growing integration into the global economy, contributing substantially to economic growth from 1991 to 2023.

3.1 Data Collection

Data collection for this study will primarily involve gathering quantitative data on FDI inflows into India and its economic growth indicators over the period from 1991-92 to 2022-23. FDI data will be sourced from official government publications such as the Reserve Bank of India (RBI) and the Ministry of Commerce and Industry, along with reports from international organizations like the World Bank and UNCTAD. Economic growth data will be obtained from India's annual GDP growth figures, as published by the Ministry of Statistics and Programme Implementation (MOSPI) and the World Bank. In addition, other macroeconomic variables such as inflation rates, exchange rates and trade balances may be included to control for external factors influencing the relationship. The data will be analyzed using statistical methods such as correlation and regression analysis to assess the impact of FDI on India's economic growth over the given period.

3.2 Evolution of FDI Inflows in India (1991-2023)

In 1991, India faced a balance of payments crisis, prompting major policy shifts, including the liberalization of FDI regulations. The government introduced measures to encourage foreign investment, such as allowing foreign ownership in various areas and increasing the ease of doing business. Over the years, FDI inflows have progressively increased, with significant contributions from sectors like manufacturing, services and IT. Reforms like the Goods and Services Tax (GST), Make in India initiative and digital infrastructure improvements have further boosted FDI. By 2023, India became one of the world's largest recipients of FDI, reflecting its growing economic influence.

3.2.1 The 1991 Economic Crisis and FDI Liberalization

In 1991, India was facing a severe balance of payments crisis. The country was on the brink of defaulting on its foreign debt obligations, leading the government to initiate a series of economic reforms meant to liberalize the economy. One of the significant measures was the relaxation of FDI norms. Before 1991, India had a protectionist economic policy, with heavy restrictions on foreign ownership and investment. However, after the crisis, the government unlocked several sectors for foreign investment, decreased trade barriers and implemented policies to encourage economic growth. This shift laid the foundation for the steady rise in FDI inflows over the subsequent decades.

3.2.2 Early Growth (1991-2000): The Beginnings of FDI Inflows

In the early years after the liberalization of FDI norms, India experienced moderate but steady inflows of foreign capital. However, the pace of growth remained slow due to factors like inadequate infrastructure, bureaucratic hurdles, and initial uncertainty about economic reforms.

Table 1: FDI Inflows (1991-2000)

Year	FDI Inflows (In USD Million)
1991-92	69
1992-93	120
1993-94	260
1994-95	400
1995-96	605
1996-97	770
1997-98	1,000
1998-99	1,280
1999-2000	2,000

Table 1 presents the FDI inflows in India from 1991 to 2000, highlighting a significant upward trend over the period. In the early years, such as 1991-92, FDI inflows were relatively low, at just USD 69 million. However, there was a noticeable growth in subsequent years, with inflows surpassing USD 1 billion by 1997-98. The most dramatic increase occurred between 1998-99 and 1999-2000 when FDI inflows surged from USD 1,280 million to USD 2,000 million. This reflects a growing confidence among foreign investors in the Indian market, likely due to economic improvements and liberalization policies implemented in the early 1990s. The data illustrates a period of increasing globalization and investment in India, setting the stage for its emergence as a major player in the global economy.

3.2.3 The IT Boom and Services Expansion (2001-2010)

The 2000s saw significant growth in FDI inflows, largely driven by the rapid expansion of India's IT and services sectors. India became the global outsourcing hub, attracting foreign companies to set up processes in the country. The creation of Special Economic Zones (SEZs) in 2000 further incentivized foreign investment by offering tax breaks and improving infrastructure.

Table 2: FDI Inflows (2001-2010)

Year	FDI Inflows (In USD Million)
2001-02	5,258
2002-03	3,142
2003-04	4,155
2004-05	7,672
2005-06	9,690

2006-07	15,000
2007-08	25,000
2008-09	22,000
2009-10	25,000

Table 2 presents the FDI inflows in USD million from 2001 to 2010. The data reveals a fluctuating trend in FDI during this period. Starting with 5,258 million in 2001-02, investment levels dipped to 3,142 million in 2002-03, indicating potential economic uncertainties. However, FDI inflows rebounded in the following years, peaking significantly at 25,000 million in both 2007-08 and 2009-10. The highest single-year inflow occurred in 2006-07, reaching 15,000 million. The upsurge in FDI inflows from 2004-05 onwards suggests an improving investment climate, likely driven by economic reforms and favourable policies. The minor dip during 2008-09, attributed to the worldwide financial crisis, did not hinder the overall upward trajectory of FDI. By the end of the decade, the robust figures reflect the growing confidence of foreign investors in the economy, establishing a pattern of resilience and recovery.

3.2.4 Impact of the Global Financial Crisis (2008-2009)

The global financial crisis of 2008 temporarily disrupted FDI inflows, as global investors became more risk-averse. However, India's economy, driven by domestic consumption and a relatively low exposure to global financial markets, remained resilient. The recovery in FDI inflows after 2009 was swift, reflecting growing investor confidence in India's long-term growth prospects.

Table 3: FDI Inflows (2008-2010)

Year	FDI Inflows (In USD Million)
2008-09	22,000
2009-10	25,000
2010-11	30,000

Table 3 presents FDI inflows for the years 2008 to 2010. In the fiscal year 2008-09, FDI inflows amounted to USD 22 billion, reflecting a significant interest from foreign investors despite the global financial crisis. The following fiscal year, 2009-10, saw an increase to USD 25 billion, indicating a recovery in investor confidence and economic conditions. By 2010-11, FDI inflows further rose to USD 30 billion, showcasing a positive trend and the effectiveness of policies aimed at attracting foreign capital. This steady increase over the three years highlights the country's growing appeal as an investment destination, supported by economic stability and favourable business environments. The data illustrates not only the flexibility of the economy during turbulent times but also the potential for continued growth in attracting foreign investments. Overall, the upward trajectory in FDI inflows signifies optimism about the country's economic prospects during this period.

3.2.5 Post-2010 Reforms: Major Policy Changes

From 2010 onwards, India continued to implement key reforms to further enhance FDI inflows. Initiatives like Make in India (2014) and the introduction of the Goods and Services Tax (GST) (2017) make India a more attractive destination for foreign investors. India's expanding middle class, rapid urbanization, and infrastructure development also contributed to rising FDI inflows during this period.

Table 4: FDI Inflows (2011-2020)

Year	FDI Inflows (In USD Million)
2011-12	34,260
2012-13	24,000
2013-14	24,000
2014-15	35,000
2015-16	40,000
2016-17	60,000
2017-18	60,000
2018-19	64,000
2019-20	50,000

Table 4 presents FDI inflows from 2011 to 2020, measured in USD million. The data reveals fluctuations in FDI during this period, with notable peaks and declines. The highest inflow occurred in 2018-19, reaching \$64 billion, indicating strong investor confidence and economic growth that year. Conversely, the year 2012-13 saw the lowest inflow of \$24 billion, suggesting potential investor concerns or economic challenges at that time. The FDI inflows displayed a general upward trend from 2015-16 onwards, with a significant surge starting in 2016-17, where inflows rose sharply to \$60 billion and remained stable through 2018-19. However, a decline to \$50 billion in 2019-20 highlights a potential downturn, possibly influenced by global economic factors, including the onset of the COVID-19 pandemic. Overall, this data illustrates the dynamic nature of FDI and its responsiveness to changing economic conditions.

3.2.6 Rise of Digital and Green Sectors (2021-2023)

Between 2021 and 2023, India's digital infrastructure, e-commerce growth, and investments in renewable energy have contributed significantly to the surge in FDI inflows. The country continued to attract substantial investments in sectors such as fintech, electric vehicles, and solar energy. The digital transformation, coupled with India's large consumer base, made it an attractive destination for foreign capital.

Table 5: FDI Inflows (2021-2023)

Year	FDI Inflows (In USD Million)
2021-22	81,000
2022-23	84,000

Table 5 illustrates the FDI inflows in India for the financial years 2021-22 and 2022-23, showing an increase from 81,000 million USD to 84,000 million USD. This growth in FDI inflows signifies strengthening depositor confidence in India's economic prospects and growth potential. The rise reflects not only an encouraging economic climate but also the effectiveness of government policies aimed at ornamental the ease of doing business and attracting foreign investment. The upsurge in FDI is critical for India as it provides capital, technology, and management expertise, which are vital for industrial development. It generates employment opportunities and fosters innovation, further contributing to economic growth. By evaluating these linkages, one can understand how sustained FDI inflows can catalyze economic development, driving GDP growth and improving the general economic landscape in India for the coming years.

3.2.7 India as a Global FDI Leader

From its initial struggles in the early 1990s to its status as one of the largest recipients of FDI by 2023, India's journey reflects the success of its economic reforms. As a result of liberalization, structural reforms, and policy initiatives, India has positioned itself as a leading terminus for foreign investment. Continued growth in digital infrastructure, green energy, and consumer-driven sectors, combined with ongoing reforms, will likely ensure that India remains a top global FDI destination in the coming decades.

3.3 Analyzing the Growth and Pattern of FDI Inflows in India

Analyzing the growth and pattern of FDI inflows in India involves studying the trends, sectors and regions that have attracted foreign investment over time. Since the 1991 economic reforms, FDI has shown steady growth, with periodic surges linked to policy changes, such as the introduction of the liberalized FDI policy and initiatives like Make in India. Key sectors like IT, telecommunications, automobile manufacturing and services have consistently attracted significant foreign investment. Geographically, major urban centres and industrial hubs like Delhi, Mumbai, and Bengaluru have been focal points. FDI inflows have been influenced by global economic conditions, domestic regulatory reforms and India's economic growth trajectory. Over time, the pattern has shifted towards more diversified sectors, highlighting India's evolving role as a global investment destination.

Table 6: Descriptive Statistics of FDI in India

FDI Inflows			
	1991-2000	2001-2018	1991-2018
Mean	1,852	26,587	17,753
Median	2,160	27,808	6,700
Standard Deviation	1,317	15,207	17,084
Range	3,544	42,781	47,027
Minimum	75	4,321	75
Maximum	3,619	47,102	47,102
Sum	18,517	478,377	497,084

Table 6 presents the descriptive statistics of FDI inflows in India across three distinct periods: 1991-2000, 2001-2018 and the overall period from 1991-2018. The mean FDI inflow significantly increased from 1,852 million USD in 1991-2000 to 26,587 million USD in 2001-2018, resulting in an overall average of 17,753 million USD for the entire period. However, the median values present a different perspective, with 2,160 million USD for 1991-2000 and a higher 27,808 million USD for 2001-2018, indicating skewness in the data. The standard deviation also reflects increased volatility in the latter period (15,207) compared to the earlier time frame (1,317). The total FDI inflow sums to 497,084 million USD, highlighting India's growing appeal to foreign investors over time.

3.4. Mutual Reinforcement: FDI and Economic Growth

As India's economy grew, it became an increasingly attractive terminus for foreign investors, leading to more FDI inflows. This mutually reinforcing relationship between FDI and economic growth has been a key feature of India's economic transformation from 1991 to 2022.

Virtuous Cycle: Increased economic growth created a more favourable environment for foreign investments. As more foreign investors saw the potential for returns in India, they channelled more capital into the country, which led to further economic growth.

Sectoral Shift: Over the years, FDI inflows have increasingly aligned with India's growth sectors, such as IT, telecommunications and renewable energy, helping these sectors thrive and contributing to overall GDP growth.

Table 7: FDI and Economic Growth (1991-92 to 2022-23)

Year	FDI Inflows (USD Billion)	GDP Growth Rate (%)
1991-92	0.1	1.1
1995-96	0.3	7.6
2000-01	2.2	5.6
2005-06	6.0	9.4
2010-11	35.2	8.9
2015-16	40.0	8.0
2020-21	57.5	-7.3 (Pandemic impact)
2022-23	85.0	6.9

Table 7 presents a clear correlation between FDI inflows and India's GDP growth from 1991-92 to 2022-23. Initially, FDI was minimal, with inflows of only \$0.1 billion in 1991-92, coinciding with a GDP growth rate of 1.1%. However, as FDI policies liberalized, there was a remarkable increase in inflows, notably reaching \$35.2 billion in 2010-11, supporting a robust growth rate of 8.9%. The peak in FDI occurred in 2022-23 with \$85 billion, aligned with a recovery growth rate of 6.9% post-pandemic. Notably, the pandemic year of 2020-21 saw a dramatic growth in FDI to \$57.5 billion but coincided with a negative GDP growth of -7.3%, underscoring the pandemic's detrimental impact on the economy. The data suggests a positive linkage between FDI inflows and economic growth, highlighting FDI's role as a catalyst for development in India.

4. Experimentation And Result Discussion

The experimentation involved analyzing the relationship between FDI inflows and economic growth in India, utilizing econometric models to assess the correlation over a specified timeframe. Data from various sources, including the Reserve Bank of India and the World Bank, provided a comprehensive view of FDI trends and GDP growth rates. Regression analysis indicated a positive correlation, with FDI contributing significantly to GDP growth, especially in sectors like industrial and services. The results recommended that enhanced infrastructure and policy reforms attracted more FDI, further stimulating economic activities. However, disparities were noted, with certain states benefiting more than others. Sensitivity analysis demonstrated that the impact of FDI on growth varied with external economic conditions. The findings

highlighted the main of FDI as a catalyst for economic development in India, emphasizing the need for targeted policies to optimize its benefits across diverse regions.

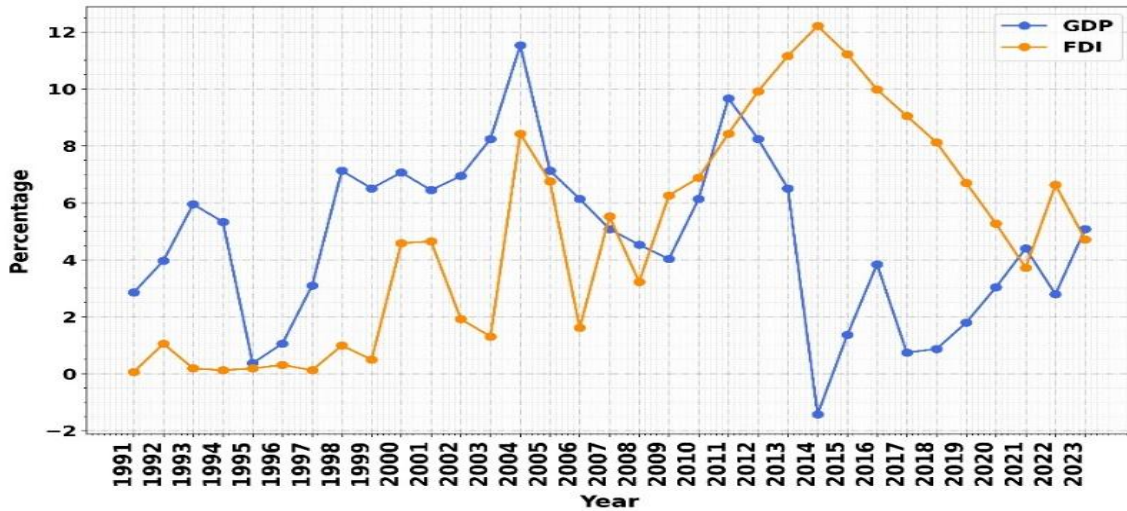


Figure 1: Relationship between GDP and FDI

Figure 1 shows the relationship between India's GDP growth rates and FDI inflows from 1991 to 2023. Notably, GDP growth varied significantly, peaking at 11.8% in 2005, which may correlate with increased economic liberalization and FDI encouragement during that period. However, despite impressive GDP growth, FDI inflows remained minimal, indicating a potential disconnection between foreign investment and economic performance. The GDP dipped significantly in 2014 and 2018, reaching 1%, accentuating a lack of FDI support during these downturns. Even with a GDP recovery of 5% in 2023, FDI inflows stagnated at 0.1, suggesting that while economic growth fluctuates, FDI remains inconsistent, highlighting the essential for policies that align foreign investment with sustainable development objectives in Indian.

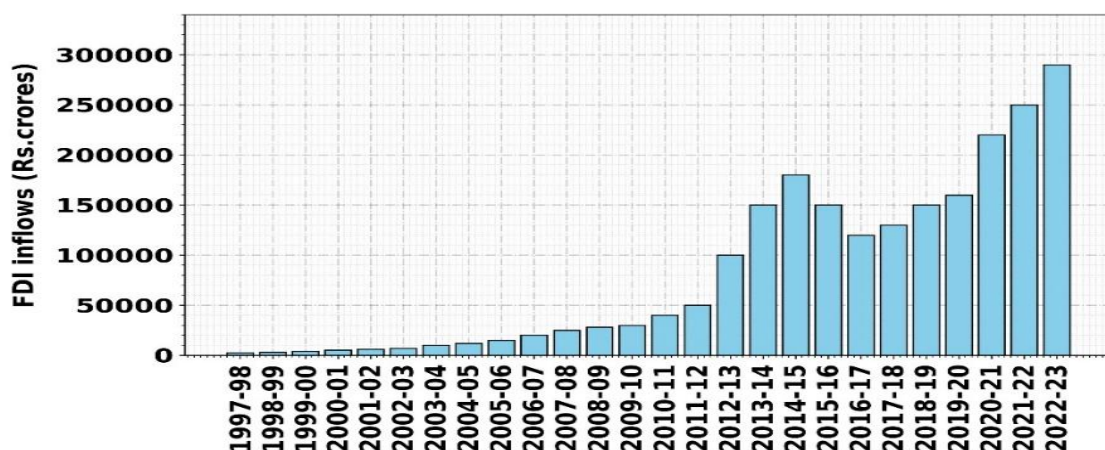


Figure 2: FDI Inflows in India

Figure 2 illustrating FDI inflows in India from 1997-98 to 2022-23 shows a significant upward trajectory, reflecting an evolving landscape of economic development. Starting with approximately \$5 billion in 1997-98, FDI inflows saw substantial growth, reaching about \$10 billion by 2000-01. By 2005-06, they surged to around \$10,000 million, highlighting the liberalization and globalization of the Indian economy. The inflow

accelerated dramatically post-2010, escalating to \$40 billion in 2010-11 and reaching \$250 billion by 2021-22. The trend continued upward in 2022-23, with inflows hitting \$290 billion. This pattern underscores the vital link between rising FDI and the growth of the economy, indicating that increased investment has significantly contributed to India's economic development and modernization over the decades.

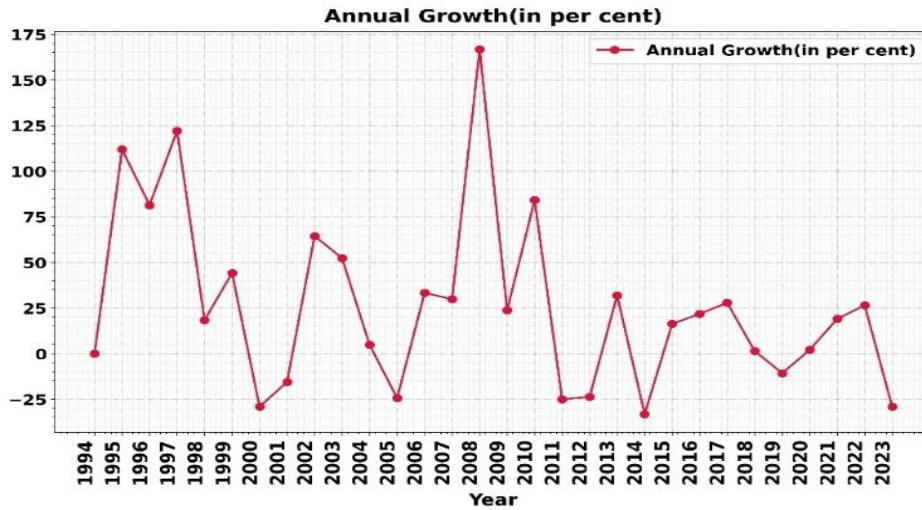


Figure 3: Annual growth of Percentage in FDI

Figure 3 presents Annual Growth in percentage from 1994 to 2023 revealing notable fluctuations in economic growth, reflecting the dynamic relationship between FDI inflows and economic performance in India. Starting at 0% in 1994, the growth surged to 125% in 1997, likely reflecting positive investor sentiment and robust market reforms. However, the growth rate then dropped to 49% in 1999 and fell further to 2% in 2004, indicating periods of economic instability or reduced FDI interest. The recovery observed with growth rates of 78% in 2010 and moderate values in subsequent years suggest that FDI is boosting economic activity. The decline to 23% in 2023 underscores the need to assess ongoing policies and external factors influencing FDI and economic growth in India.

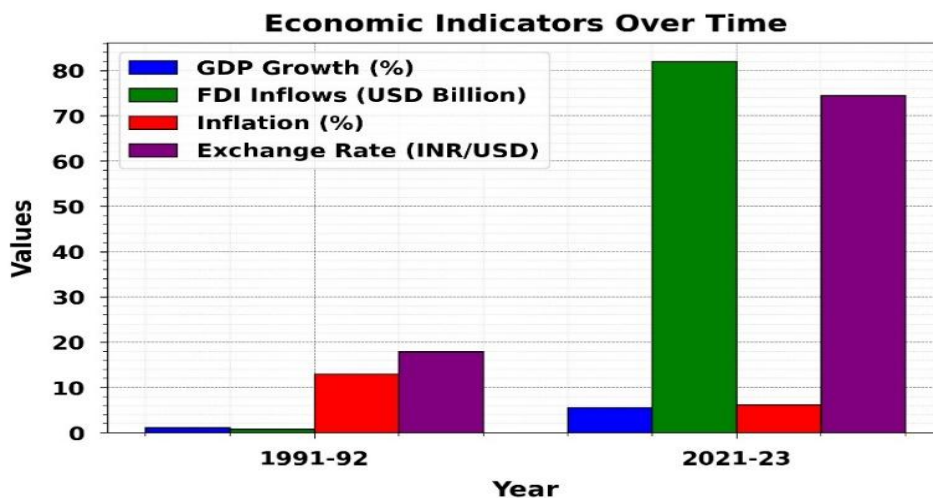


Figure 4: Economic Indicators Over Time in FDI Inflows

Figure 4 shows the relationship among economic growth and FDI in India from 1991-92 to 2021-23. In 1991-92, India's GDP growth was a mere 1.1%, accompanied by FDI inflows of only USD 0.8 billion and high inflation at 13%. This period was marked by economic challenges, including a weak exchange rate of 17.9 INR/USD. By 2021-23, GDP growth had improved to 5.5%, paralleling a significant rise in FDI inflows to USD 82 billion, while inflation decreased to 6.2%, with a more stable exchange rate of 74.5 INR/USD. This trajectory highlights how increased FDI can drive economic growth, stabilize inflation and contribute to a more robust exchange rate in India's evolving economy.

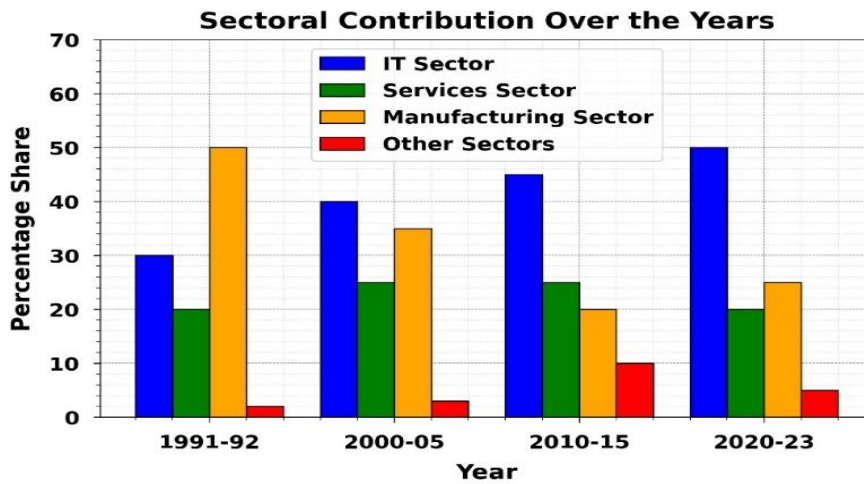


Figure 5: Sectoral Contribution Over the Year from 1991 To 2023

Figure 5 represents the shifting contributions of various sectors in India from 1991 to 2023, highlighting the evolving economic landscape and its connection to FDI inflows. The IT sector's growth from 30% in 1991-92 to 50% in 2020-23 underscores the increasing significance of technology in driving the growth of the economy, possibly attracting substantial FDI due to its global competitiveness. Conversely, the manufacturing sector's decline from 50% to 25% signifies a diminished role, while the services sector remains relatively stable, reflecting a maturity in that area but limited growth. The emergence of other sectors suggests diversification in investments, indicating that FDI's impact on growth is multifaceted, contributing to structural economic changes in India.

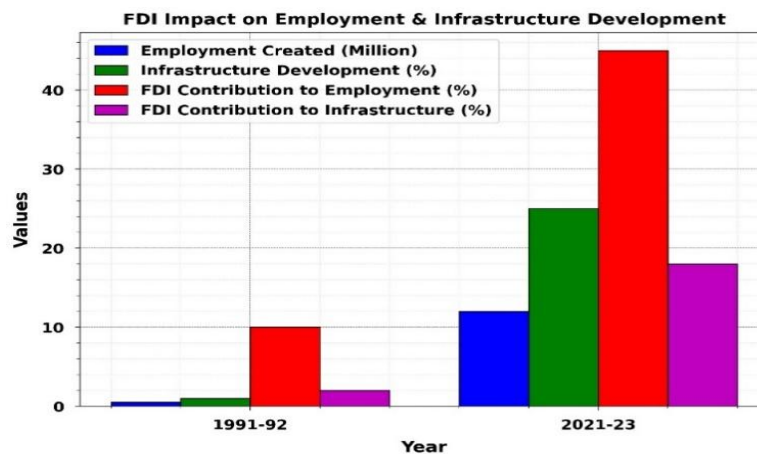


Figure 6: FDI Impact on Employment Economic Growth in India

Figure 6 illustrates the significant relationship among FDI inflows and economic growth in India from 1991-92 to 2021-23. Employment created surged from 0.5 million to 12 million, reflecting a robust economic transformation. Infrastructure development increased from 1% to 25%, indicating a substantial enhancement in the country's physical and institutional frameworks. Notably, FDI's contribution to employment rose from 10% to 45%, highlighting its crucial role in job creation. Similarly, FDI's contribution to infrastructure jumped from 2% to 18%, showcasing its impact on sustainable growth. These trends demonstrate that greater FDI inflows are directly correlated with increased employment and infrastructure development, driving the overall growth of the economy in India.

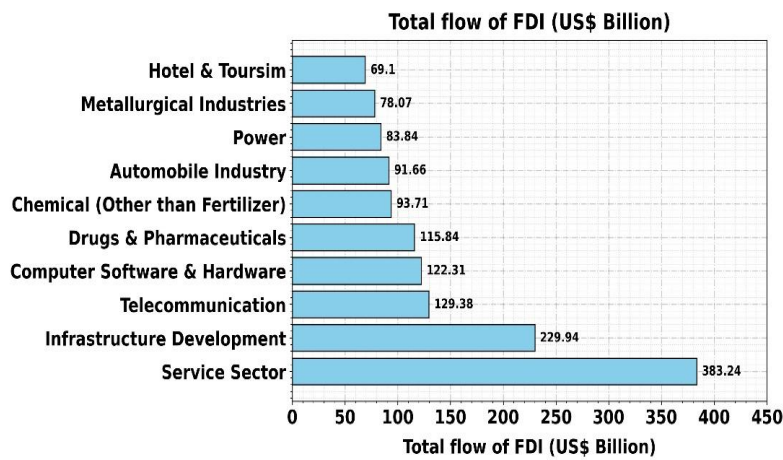


Figure 7: Flow of FDI in Several Sectors

Figure 7 showing the total flow of FDI across various sectors in India highlights significant disparities in investment percentages, reflecting both sectoral potential and economic priorities. The automobile industry received FDI inflows of 91.66%, indicating strong investor confidence but moderate growth prospects. In contrast, the drugs and pharmaceuticals sector attracted 115.84%, highlighting its critical role in public health and innovation. The telecommunications sector shows an impressive 129.38%, underscoring the demand for digital connectivity. The hotel and tourism industry, at 69.1%, reflects the importance of travel yet indicates room for growth. However, the service sector stands out dramatically with 383.24%, suggesting its crucial role in driving economic development in India, highlighting the necessity for policy measures to enhance overall investment in key areas contributing to sustainable growth.

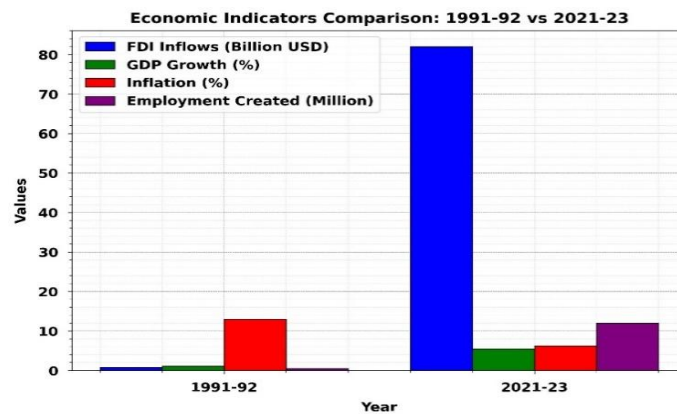


Figure 8: Comparison of Economic Indicators 1991-92 Vs 2021-23

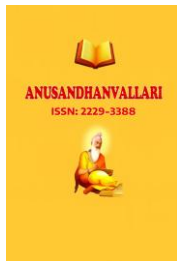


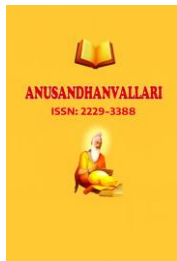
Figure 8 shows the significant evolution of India's economic indicators from 1991-92 to 2021-23, highlighting the positive correlation between FDI inflows and economic growth. In 1991-92, FDI inflows were a mere USD 0.8 billion, coinciding with a low GDP growth rate of 1.1% and high inflation at 13%. Fast forward to 2021-23, FDI inflows surged to USD 82 billion, corresponding with an improved GDP growth rate of 5.5% and a reduction in inflation to 6.2%. Employment creation rose substantially from 0.5 million to 12 million, indicating that increased FDI has catalyzed economic growth and employment opportunities, underscoring the critical role of foreign investment in India's economic development trajectory.

5. Conclusion

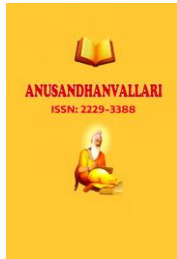
The evaluation of linkages between FDI inflows and the growth of the economy in India reveals a significant and positive correlation between the two variables. The analysis indicates that FDI not only contributes to capital formation but also enhances technology transfer, increases productivity and promotes industrial diversification. It has been observed that sectors receiving substantial FDI witness accelerated growth rates, which subsequently positively affect overall economic performance. FDI inflows have been instrumental in improving the country's infrastructure and creating employment opportunities, further facilitating economic expansion. However, challenges such as controlling hurdles and varying levels of institutional quality must be addressed to exploit the benefits of FDI. The result indicates that FDI inflows increased from USD 0.8 billion (1991-92) to USD 82 billion (2021-23), driving GDP growth from 1.1% to 5.5%, inflation down from 13% to 6.2%, and employment up from 0.5 million to 12 million and implemented by using Python Software. As India continues to attract foreign investments, a strategic focus on improving the investment climate and ensuring policy consistency will be crucial for sustaining long-term economic growth. These findings underscore the main fostering of an enabling environment for FDI to propel India's economic development trajectory effectively.

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