International Journal of Innovations & Research Analysis (IJIRA)
ISSN :2583-0295, Impact Factor: 5.449, Volume 02, No. 04(II), October- December, 2022, pp 250-258

ROLE OF GDP IN ATTRACTING FDI IN INDIA

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ABSTRACT

External capital is mainly generated by Foreign Direct Investment for developing countries like India. FDI inflows are important for the economic growth and development of a country as they bring in new technology, managerial skills, and access to international markets. FDI also helps to create employment opportunities and promote entrepreneurship. Over the years, India has undertaken several policy reforms to encourage FDI inflows in various sectors of the economy. The determinants of FDI in India can be broadly classified into two categories: macroeconomic factors and sector-specific factors. Macroeconomic factors include the overall economic and political environment of the country, while sector-specific factors include the attractiveness of specific sectors for investment. Some of the macroeconomic factors that influence FDI inflows in India include the size of the economy, the level of exchange rates, interest rates, inflation rates, economic growth, and the stability of the political environment. The government's policies and regulations also play a vital part in appealing FDI to India. The study focused on analysis the role of GDP in attracting in FDI inflow in India. Data of FDI inflow in India and GDP was collected form World Development Indicators for the time period 2001-2021 as it was available till 2021. The data was analyzed for trend analysis and regression equation was run in Eviews 9.

Keywords: *FDI, Determinants, Microeconomic, Macroeconomic, Economic Growth.*

Introduction

When, a foreign company makes an investment in the domestic company, it is known as Foreign Direct Investment. It entails starting a brand-new company or buying an already-existing one in the host nation. FDI is considered to be an important source of capital, technology, and employment in the host country. The decision to invest in a foreign country is influenced by various factors, known as determinants of FDI. These determinants can be broadly classified into two categories: macroeconomic and microeconomic determinants.

The size of the market, the level of economic development, political stability, the legal and regulatory environment, the exchange rate system, and the tax policies of the host country are just a few examples of macroeconomic determinants of FDI. These factors determine the attractiveness of a country as an investment destination and influence the extent and nature of FDI inflows.

Microeconomic determinants of FDI include elements such as the availability of natural resources, the cost and quality of labor, the level of infrastructural development, the level of technical advancement, and the competitive environment of the host country. These factors influence the specific investment decisions of foreign companies and the sectors in which they choose to invest.

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Understanding the determinants of FDI can help policymakers in the host country to attract more FDI inflows by improving the investment climate and addressing the concerns of foreign investors. It can also help foreign investors to make informed decisions about investing in a particular country.

Over the past 20 years, India has seen a significant increase in Foreign Direct Investment (FDI). According to figures from the Reserve Bank of India (RBI), the inflow of FDI into India surged from USD 4.2 billion in 2001-02 to USD 81.7 billion in 2020-21.

Following are some key trends and figures related to FDI in India over the past 20 years:

- **Sector-wise FDI:** Following computer hardware and software, telecommunications, and real estate development, the services sector has consistently received the most foreign direct investment in India. In recent years, there has also been significant FDI inflow into the e-commerce and renewable energy sectors.
- **Country-wise FDI:** Mauritius, Singapore, and the United States have been the top sources of FDI inflows into India.
- **Policy reforms:** Several policy reforms have been implemented by GOI to attract more FDI into the country, including liberalizing foreign investment regulations, simplifying procedures for investment, and improving the ease of doing business.
- **Impact on the Economy:** FDI has contributed an important part role in the development of the Indian economy, contributing to job creation, technology transfer, and increased exports.

Overall, FDI has been an important driver of economic growth and development in India over the past 20 years. However, there are also challenges and concerns related to FDI, such as the impact on local businesses and the need for greater accountability and transparency in investment decisions.

Determinants of FDI

There are several determinants of FDI, including:

- **Market Size and Potential:** Investors are attracted to countries with large and growing markets, as this provides them with the opportunity to expand their customer base and increase their profits.
- **Economic Stability and Growth:** Countries with stable and growing economies are more attractive to foreign investors as they are considered to be less risky.
- **Infrastructure:** A good infrastructure is essential for the smooth functioning of business operations. This includes transportation, communication, and energy infrastructure.
- **Labor Costs and Skills:** Investors are attracted to countries with a skilled and cost-effective labor force. The availability of skilled labor and competitive labor costs can significantly impact the decision to invest in a particular country.
- **Government Policies and Regulations:** The government policies and regulations of a country can significantly impact the investment decision of foreign investors. Policies such as tax incentives ease of doing business, and protection of foreign investment can attract more foreign investors.
- **Natural Resources:** The availability of natural resources such as minerals, oil, and gas can be an important factor in attracting foreign investors. Countries with abundant natural resources can be attractive for investors seeking to exploit those resources.
- **Access to Regional Markets:** Countries that are close to one another geographically and that have access to regional markets may be of interest to international investors wishing to extend their operations beyond their own boundaries.
- **Intellectual Property Protection:** Investors are attracted to countries that have strong intellectual property protection laws. This is important for protecting the investments made in research and development and maintaining a competitive advantage.

These determinants of FDI are not mutually exclusive, and a combination of these factors can influence the investment decisions of foreign investors.

Sector-specific factors that influence FDI inflows in India include the availability of natural resources, the level of infrastructure development, the skill level of the workforce, and the potential for market growth in specific sectors. In recent years, India has seen a significant increase in FDI inflows, particularly in sectors such as manufacturing, services, and infrastructure. Overall, the determinants of FDI in India are complex and varied, and a combination of macroeconomic and sector-specific factors is required to attract foreign investors to the country.

Review of Literature

Bhardwaj and Sharma (2021) analysed FDI inflows in India on a sectoral level and discovered that political stability, market size, and economic growth were key determinants of FDI in both the manufacturing and services sectors. They also found that labor cost was an important factor in the manufacturing sector, while infrastructure was crucial for FDI in the services sector.

Kumar and Singh (2021) also conducted a sectoral analysis of FDI inflows in India and found that economic growth, market size, and infrastructure were significant determinants of FDI in both the manufacturing and services sectors. They also found that labor cost and political stability were important factors in the manufacturing sector, while government policies and institutional quality were crucial for FDI in the services sector.

Mishra and Singh (2021) studied the determinants of FDI inflows in India using a panel data analysis and found that economic growth, market size, and infrastructure were significant factors influencing FDI inflows. They also found that institutional quality, government policies, and political stability were important determinants of FDI inflows in India.

Saha and Bhattacherjee (2021) focused specifically on the services sector and found that economic growth, market size, and infrastructure were important determinants of FDI in this sector. They also found that government policies such as tax incentives and investment promotion measures were significant in attracting FDI in the services sector.

As of April 2021, the cumulative FDI inflows into India since April 2000 stood at USD 608.29 billion, according to DPIIT.

In terms of industries, the services sector attracted the biggest FDI inflows in India, accounting for about 46% of total FDI equity inflows between April 2000 and March 2021, followed by computer software and hardware (10.5%), telecommunications (7.8%), and trading (6.5%), according to DPIIT.

According to DPIIT, Mauritius, Singapore, the United States, the Netherlands, Japan, the United Kingdom, Germany, Cyprus, France, and the United Arab Emirates were the top 10 nations that invested in India in terms of FDI equity inflows between April 2000 and March 2021.

India moved up 14 spots to 63rd place overall in the Ease of Doing Business 2020 report published by World Bank, out of 190 nations, reflecting the government's initiatives to enhance the business climate and draw in more foreign investment.

These studies provide valuable insights into the determinants of FDI in India, highlighting the importance of factors such as economic growth, market size, infrastructure, government policies, and institutional quality.

According to the World Investment Report 2021 by UNCTAD, FDI inflows to India increased by 25% to reach USD 64 billion in 2020, despite the COVID-19 pandemic. Overall, these statistics demonstrate the significant inflow of FDI into India, particularly in the services sector, and the country's improving business environment and attractiveness for foreign investment.

These studies provide insights into various determinants of FDI in India, including macroeconomic factors, sector-specific factors, and policy measures. The findings of these studies suggest that factors such as economic growth, infrastructure development, market size, political stability, human capital, natural resources, trade openness, and government policies are significant determinants of FDI inflows in India. The results of these studies can help policymakers in developing effective strategies and policies to attract more FDI inflows in India and promote economic growth and development. Growth, market size, labor costs, infrastructure, political stability, and government policies are important determinants of FDI inflows in India.

Specifically, some studies have found that the services sector is the most attractive sector for FDI in India, followed by the manufacturing sector. Other studies have highlighted the importance of policy measures such as liberalization and deregulation of the economy, as well as the role of institutions such as the Reserve Bank of India and the Ministry of Commerce and Industry in promoting FDI.

Overall, these studies provide important insights into the factors that influence FDI inflows in India, and can be useful for policymakers and investors looking to understand the opportunities and challenges associated with investing in the country.

FDI inflows into India come from a diverse range of countries and sectors. Here are some details regarding the countries and sectors investing in FDI in India:

- **Countries Investing in FDI in India:** As per Government of India's Ministry of Commerce and Industry, following countries is top in the list of investing countries in India.
- **Singapore:** With 29% of the total FDI inflows in 2020–21, Singapore is the largest source of FDI in India. The main industries luring Singaporean FDI are the trading, services, and software and hardware industries.
- **United States:** With 23% of all FDI inflows in 2020–21, the United States is the second-largest source of FDI in India. Major sectors attracting US FDI include computer software and hardware, services, and automobiles.
- **Mauritius:** Mauritius is a major source of FDI in India due to its favorable tax regime. It accounted for 9% of the total FDI inflows in 2020-21. Major sectors attracting Mauritian FDI include computer software and hardware, trading, and services.
- **Japan:** In 2020–21, 7% of all FDI inflows to India will come from Japan, making it a substantial source of FDI. Major sectors attracting Japanese FDI include automobiles, electrical equipment, and services.
- **Netherlands:** A significant source of FDI in India, the Netherlands contributed 5% of all FDI inflows in the years 2020–21. Major sectors attracting Dutch FDI include computer software and hardware, services, and trading.
- **Sectors investing in FDI in India:** As per Government of India's Ministry of Commerce and Industry, following sectors are top in the list of attracting FDI in India.
- **Computer Software and Hardware:** The computer software and hardware sector attracts the most FDI in India, accounting for 44% of the total FDI inflows in 2020-21. Major companies investing in this sector include Microsoft, Google, and IBM.
- **Services:** The second-largest beneficiary of FDI in India is the services sector, which received 23% of all FDI inflows in 2020–21. Financial and non-financial services including banking, insurance, and telecommunications are included in this industry.
- **Trading:** The third-largest recipient of FDI in India is the trading sector, which will receive 6% of all FDI inflows in 2020–21. Retail and wholesale trade both fall under this sector.
- **Automobiles:** In India, the automobile industry is a significant recipient of FDI, receiving 4% of all FDI inflows in 2020–21. Major companies investing in this sector include Ford, General Motors, and Suzuki.
- **Construction:** In India, the construction industry is a large receiver of FDI, receiving 3% of all FDI inflows in the years 2020–21.

Research Methodology

Objective

The objective of the study was to analyse the role of GDP in attracting in FDI inflow in India.

Data and Source

Data of FDI inflow in India and GDP was collected form World Development Indicators for the time period 2001-2021 as it was available till 2021.

Period of Study

The period of study ranges from 2001 to the latest available data i.e. 2021.

Tools and Software Used

The data was analyzed for trend analysis and regression equation was run in Eviews 9.

FDI Inflows = *f* (GDP)

FDI Inflows = $\alpha+\beta GDP+\mu$

Analysis and Interpretation

Following is a table showing the FDI trends in India for the last 21 years (2001-2021) based on data from the World Development Indicators:

Table 1

Year	Net Inflows of Foreign Direct Investment in Current US Dollars (in USD Million)	Growth Rate (%)
2001	5128.09	0
2002	5208.97	1.58
2003	3681.98	-29.31
2004	5429.25	47.45
2005	7269.41	33.89
2006	20029.12	175.53
2007	25227.74	25.96
2008	43406.28	72.06
2009	35581.37	-18.03
2010	27396.89	-23.00
2011	36498.65	33.22
2012	23995.69	-34.26
2013	28153.03	17.33
2014	34576.64	22.82
2015	44009.49	27.28
2016	44458.57	1.02
2017	39966.09	-10.10
2018	42117.45	5.38
2019	50610.65	20.17
2020	64362.36	27.17
2021	44727.28	-30.51

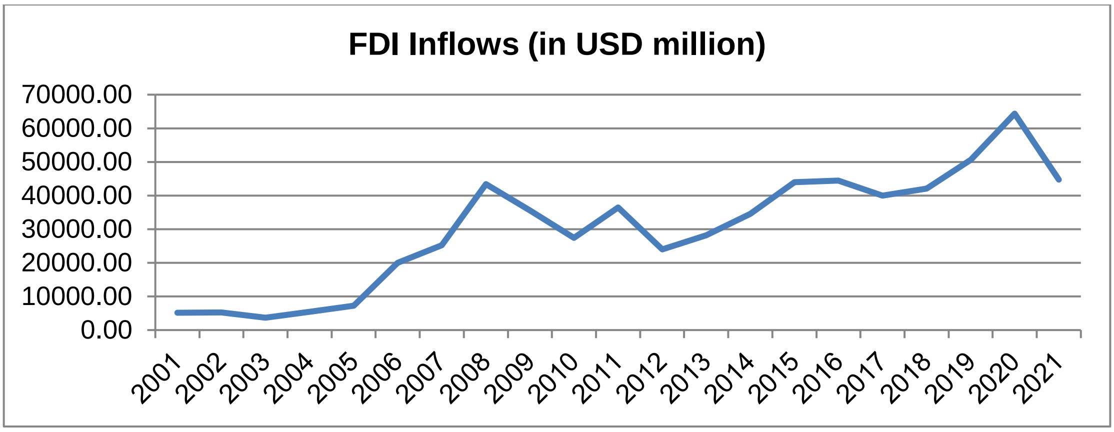

Figure 1

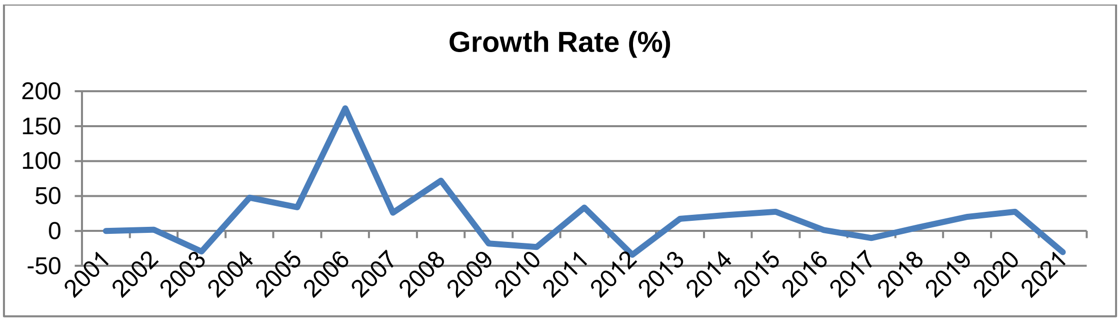

Figure 2

(Source: World Development Indicators)

Note: The FDI figures in the table are in USD million and are based on the actual inflows, i.e., they include equity inflows, reinvested earnings, and other capital. The growth rate is calculated based on the previous year's FDI inflows.

Following is a table showing the FDI inflows and its relationship with GDP in India for the past 20 years (2001-2020) based on data from the DPIIT and the World Bank:

Table 2

Year	Net Inflows of Foreign Direct Investment in Current US Dollars (in USD Million)	GDP (Current US$) (in USD Billion)
2001	5128.09	485.44
2002	5208.97	514.94
2003	3681.98	607.70
2004	5429.25	709.15
2005	7269.41	820.38
2006	20029.12	940.26
2007	25227.74	1216.74
2008	43406.28	1198.90
2009	35581.37	1341.89
2010	27396.89	1675.62
2011	36498.65	1823.05
2012	23995.69	1827.64
2013	28153.03	1856.72
2014	34576.64	2039.13
2015	44009.49	2103.59
2016	44458.57	2294.80
2017	39966.09	2651.47
2018	42117.45	2702.93
2019	50610.65	2831.55
2020	64362.36	2667.69
2021	44727.28	3176.30

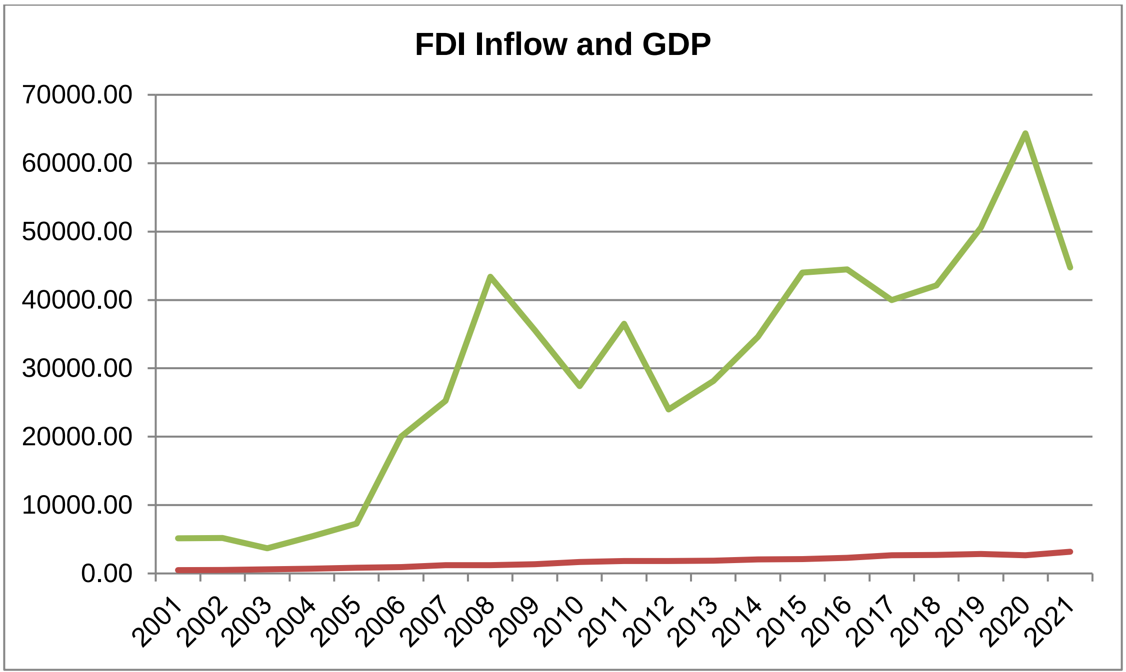

Figure 3

Source: World Development Indicators

Note: The FDI figures in the table are in USD million and are based on the actual inflows, i.e., they include equity inflows, reinvested earnings, and other capital. The GDP figures in the table are in USD billion and are based on current prices and exchange rates. The FDI/GDP ratio shows the percentage of FDI inflows to the GDP for the respective year.

Table 3

Null Hypothesis: D(FDI_INFLOWS) has a unit root
Exogenous: None
Lag Length: 0 (Automatic - based on SIC, maxlag=4)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.299708	0.0002
Test critical values:	1% level	-2.692358	
	5% level	-1.960171	
	10% level	-1.607051	

*MacKinnon (1996) one-sided p-values.
Warning: Probabilities and critical values calculated for 20 observations and may not be accurate for a sample size of 19

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(FDI_INFLOWS)
Method: Least Squares
Date: 06/06/23 Time: 17:05
Sample (adjusted): 2003 2021
Included observations: 19 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(FDI)	-1.141953	0.265588	-4.299708	0.0004

R-squared	0.503715	Mean dependent var	-1037.682
Adjusted R-squared	0.503715	S.D. dependent var	13750.16
S.E. of regression	9686.647	Akaike info criterion	21.24608
Sum squared resid	1.69E+09	Schwarz criterion	21.29579
Log likelihood	-200.8378	Hannan-Quinn criter.	21.25449
Durbin-Watson stat	1.830639		

Table 4

Null Hypothesis: D(GDP) has a unit root
Exogenous: None
Lag Length: 0 (Automatic - based on SIC, maxlag=4)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.388551	0.0199
Test critical values:	1% level	-2.692358	
	5% level	-1.960171	
	10% level	-1.607051	

*MacKinnon (1996) one-sided p-values.
Warning: Probabilities and critical values calculated for 20 observations and may not be accurate for a sample size of 19

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(GDP)
Method: Least Squares
Date: 06/06/23 Time: 17:06
Sample (adjusted): 2003 2021
Included observations: 19 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDP_(-1))	-0.660342	0.276461	-2.388551	0.0281

R-squared	0.230903	Mean dependent var	25.21633
Adjusted R-squared	0.230903	S.D. dependent var	228.4016
S.E. of regression	200.3040	Akaike info criterion	13.48875
Sum squared resid	722190.8	Schwarz criterion	13.53845
Log likelihood	-127.1431	Hannan-Quinn criter.	13.49716
Durbin-Watson stat	1.743574		

Table 5

Dependent Variable: FDI_INFLOWS
Method: Least Squares
Date: 06/06/23 Time: 17:07
Sample: 2001 2021
Included observations: 21

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.314775	4488.466	0.001630	0.9987
GDP	17.80093	2.391456	7.443552	0.0000

R-squared	0.744646	Mean dependent var	30087.38
Adjusted R-squared	0.731206	S.D. dependent var	17266.31
S.E. of regression	8951.777	Akaike info criterion	21.12748
Sum squared resid	1.52E+09	Schwarz criterion	21.22696
Log likelihood	-219.8386	Hannan-Quinn criter.	21.14907
F-statistic	55.40647	Durbin-Watson stat	1.531612
Prob(F-statistic)	0.000000		

FDI Inflows = *f* (GDP)

FDI Inflows = $\alpha+\beta GDP+\mu$

FDI inflow=-4385.361+18.93519GDP

Discussion

The data of FDI and GDP was checked for unit root with the help of ADF test. Both the series are free from unit root at first difference table 3 and 4. After that, regression was run to check the effect of GDP on FDI. The results show that there is a significant impact of GDP on FDI table 5.

Conclusion

According to DPIIT, the services sector in India saw the highest inflows of foreign direct investment (FDI), accounting for roughly 46% of all FDI equity inflows between April 2000 and March 2021. Computer software and hardware (10.5%), telecommunications (7.8%), and trading (6.5%) were the next-highest-inflow sectors. According to DPIIT, the top 10 nations that made FDI equity investments in India between April 2000 and March 2021 were Mauritius, Singapore, the United States, the Netherlands, Japan, the United Kingdom, Germany, Cyprus, France, and the United Arab Emirates. These studies' conclusions imply that key determinants of FDI inflows in India include things like economic growth, infrastructural development, market size, political stability, human capital, natural resources, trade openness, and government policies. The results of these studies can help policymakers in developing effective strategies and policies to attract more FDI inflows in India and promote economic growth and development. Growth, market size, labor costs, infrastructure, political stability, and government policies are important determinants of FDI inflows in India.

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