An Empirical Investigation of Changing Trend Patterns of Foreign Direct Investment (FDI) in India

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Abstract

The globalization and liberalization of the economy gave an opportunity to the foreign entities to invest their surplus funds in other countries. In the recent past, India has witnessed a substantial rise in the foreign direct investment inflows and with this, India emerged as one of the most preferred destinations for foreign direct investment in the world in 2015. Although the foreign direct investment has been increasing, but the period after 2008 witnessed fluctuations and diminishing growth. Hence, the present study attempted to empirically analyze the trends and patterns of yearly inflow of foreign direct investment in the country (2001 - 2016) and forecasted the inflows of foreign direct investment in India in the next 5 years and also appraised the progress of flow of FDI in terms of entry route - wise, investing country - wise, and sector - wise (2006 - 2016). It is apparent from the study that though foreign direct investment showed an increasing trend, but its growth rate over previous years fluctuated vigorously. The trend analysis revealed that there will be an increasing trend of foreign direct investment inflows in India in the future. There has been a rise in the share of Singapore, Japan, and U.S.A in the total foreign direct investment in India during the past decade, while the share of Mauritius and UK in the total foreign direct investment in India declined. Among the top five sectors, the contribution of the service sector and the construction development sector in the total foreign direct investment declined, while the contribution of the automobile industry increased considerably.

Key words : **foreign direct investment, trend, sector, linear trend line analysis, forecast**

JEL Classification : C39, E22, F21, F37, Y10

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Investment in a country by individuals and organizations from other countries is a significant aspect of international finance. This kind of international finance may take the form of direct investment (creation of productive facilities) or portfolio investment (acquisition of securities) (Thangamani & Kanniamma, 2015). The globalization and liberalization under the economic reform process transformed the entire scenario of the Indian economy by providing an opportunity of internationalization of capital flows, production, and marketing (Ramakrishna, 2011). Thus, globalization gave an opportunity to the foreign entities to investing their surplus funds at the global level. India has been budding as one of the fastest -growing economies in the world with 7.6% growth rate in gross domestic product (GDP) in 2015-16. Several studies in the past have discovered that foreign direct investment (FDI) has been a key force driving the Indian economy on the track of growth and development. With the noteworthy upsurge in the foreign direct investment inflows in India since 1990-91, now India has emerged as one of the most preferred destinations for foreign direct investment in the world. However, it has

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witnessed many ups and downs in its growth since liberalization of the economy (Chawla & Sharma, 2014). With the passage of time, foreign direct investment (FDI) has assumed a great importance and has become a matter of prime concern for the policymakers of most of the countries around the world.

What Does FDI Mean ?

Foreign direct investment (FDI) is defined as investment that is made to acquire a lasting interest in an enterprise operating in an economy other than that of an investor, the investor's purpose being to have a voice in the management of the enterprise (IMF's Balance of Payment manual). Such investments can be made either by buying a company in the target country or by expanding operations of existing business in that country. Foreign direct investment is the sum of equity capital, other long-term capital, and short-term capital as shown in the balance of payments. FDI involves inflow of funds as well as participation in management, joint venture, transfer of technology, and expertise. The foreign investors have control over the business in which investment is made. The Organization of Economic Cooperation and Development (OECD) defined control as owing 10% or more of the business.

Foreign direct investment is jointly beneficial for both the home and the host countries. As a source of non-debt creating finance, FDI plays a dynamic role in the development of the economy of the host country as well as to create an opportunity for the enterprise in the home country to explore new markets to earn profits. Foreign direct investment is widely viewed as an important catalyst for the economic transformation of the transition economies. FDI boosts the growth by increasing the capital stock and employment, stimulating the technological changes through technological diffusion, and generating technological spillover for local firms (Srinivasan, 2010).

Review of Literature

Many empirical studies have been undertaken to analyze the trends of foreign direct investment (FDI) in India, few of them are as follows:

Hooda (2011) analyzed the trends and patterns of FDI flows in India and evaluated the impact of FDI on the economy for the period between 1991-2008 using trend analysis, regression analysis, and econometric models and techniques. The analysis concluded that there was a sharp rise in foreign direct investment flows from 2005 onwards. Thangamani and Kanniammal (2015) examined about the investment pattern of foreign direct investment in India during the years 2012-2013 and 2013-2014, thereby attracting highest FDI in the sector such as the service sector. The study revealed that the investment pattern of foreign direct investment in India improved the capitalization opportunities, job opportunities, and also development of the country's economy by the equity inflows. The study further disclosed that the service sector was constantly receiving decent portion of inflows through foreign direct investment.

Tirkey and Badugu (2012) studied the trend patterns of year-wise, sector-wise, region-wise, and country wise FDI inflows in India for the period from 1991 - 2000 to 2008 - 09. It was established that the FDI inflows in India have steadily grown, but it is very less as compared to developing countries like China, Russia, Brazil, Chile, etc. There are some achievements done by India in terms of GDP growth in employment. However, in comparison to China, it was very less. A persistent need to adopt some innovative policies by the government was recommended in order to attract more and more FDI in various sectors of the economy to help make India a developed country.

Gite and Singh (2015) studied the trends of FDI and FII investment flows in India for the period from 2000-01 to 2013-14 using time-series analysis. The study concluded that due to policy changes by the government, the FDIs' and FIIs' investment flows in India revealed a fluctuating trend and further, the study established that there will be an increasing trend in the future. Sagar and Lalitha (2013) evaluated the FDI inflows in India with special reference to sector -wise inflows for the period from 1991- 2008 using trend analysis. The study concluded that FDI flows had increased over the years. However, India has a tremendous potential for absorbing greater flow of FDI in the coming years. Sahni (2012) examined the trends and pattern of FDI in India for the period from 1992 - 93 to 2008 - 09. The study determined that India's share in the world FDI rose to 2.44% in 2008 as compared to 0.09% in 1991. There has been a large flow of FDI in India since 1991 and its overall direction remained the same over the years, irrespective of the ruling party. A comparative investigation of FDI approvals and inflows disclosed that there was a vast gap between the FDI amount approvals and inflows and also revealed a huge gap between the amount of FDI approved and its realization into actual disbursements in India. India received 40 % of FDI from Mauritius and from U.S.A (8%) and U.K (6.1%).

Need for the Study

India being a developing country needs $1.5 trillion investment for the infrastructure development in the next 10 years. With the radical liberalization in the foreign direct investment (FDI) regime and the relaxation of FDI norms under automatic route in many sectors, India has been able to attract a considerable amount of FDI in the past two decades and it gives the impression of economic growth and social development in the coming decades. However, during the last few years after 2009 (global financial crisis), inward FDI flows have experienced an unsteady diminishing rate of growth. Thus, in this changing economic scenario, a developing country like India requires plenty of funds to finance its capital requirements as well as the country's growth and development. With the rising importance of FDI for India in the current changing economic scenario, FDI inflows in India have grabbed the attention of the policy makers, academicians, researchers, investors, politicians, and media largely.

A survey of the extant studies revealed that a number of studies have investigated into the trends and pattern of FDI in India in the past, but they are limited to the time period till 2013 - 2014. Many studies have been conducted in regard to analyze the relationship between FDI and economic growth and other macroeconomic variables in India. A lot of literature is available on FDI in retail and other sectors. However, very few studies have addressed the changing pattern of FDI in India in terms of entry route-wise, investing country-wise, and sector-wise for the period from April 2000 to March 2016. The present literature is still very limited in this regard and needs further theoretical and empirical perspectives. Thus, the proposed study is expected to fill this gap. The present study has also endeavoured to forecast the inflows of FDI in India in the next 5 years, which a very few studies have done.

Hence, the present study aims to empirically analyze the current trends and patterns of yearly inflow of FDI in the country through a detailed study of the highest contributing countries to FDI in India as well as the top-performing sectors and route-wise FDI inflows pattern in the country. Further, the study attempts to forecast the flow of foreign direct investment in the India in future years. Thereby, the study shall suggest appropriate measures to procure quality FDI in order to capitalize it for the country's growth and development. The results of the present study are expected to make significant contribution towards the existing body of FDI literature and towards effective policy decision making regarding FDI flows in India. Also, the present study shall prove to be beneficial for the policymakers, multi-national corporations, foreign investors, executives, academicians, research scholars, and many more people who are related to business and investment in India.

Objectives of the Study

The main objectives of the study are :

- To evaluate the trends and pattern of yearly inflow of foreign direct investment in India.
- To forecast the inflows of foreign direct investment in India in the next 5 years.

➯ To assess and appraise the progress of flow of foreign direct investment in terms of entry route-wise, investing country-wise, and sector-wise.

Research Methodology

(1) Research Design : The current study is descriptive cum diagnostic in nature.

(2) Type of Data, Data Sources, and Data Presentation : The secondary data were collected from various websites particularly from the Department of Industrial Policy & Promotion, Ministry of Commerce and Industry, India ; India Brand Equity Foundation ; and Reserve Bank of India. Data were also taken from various reports, circulars, manuals, newsletters, bulletins, and factsheets as well as latest published articles from various journals and magazines. The data has been presented in tabular form and various graphs, charts, and percentages have been used to depict the trends shown by the factors under study.

(3) Period of the Study : The present study covers the time period of 16 years from April 2000 to March 2016 to study the yearly trend of FDI in India and to forecast it for the next 5 years, while a time period of 10 years from April 2006 - March 2016 was covered to assess the progress of flow of foreign direct investment in terms of entry route-wise, investing country-wise, and sector-wise.

(4) Statistical Tools Applied : For effective data analysis, the following financial and statistical tools were applied in this study: trend analysis, summary statistics (mean & standard deviation), coefficient of variance, compounded annual growth rate, and aggregate growth rate. The time series data for 16 years has been analyzed and forecasted through linear trend line analysis using the computer program MS - Excel. The linear trend line model is one of the most popular simplistic method for identifying a linear increasing or decreasing trend in historical data.

Analysis and Discussion

(1) Yearly Total FDI Inflows in India : The Table 1 presents the total amount of flow of FDI in India in terms of US$ million, index of changes with 2006-07 as the base year, and percentage change in FDI over the previous year during the period from April 2006 to March 2016.

The Table 1 clearly depicts that FDI total inflows in the year 2001 were US $ 4029 million, and thereafter it faced a fluctuating trend to have increased in 2002 to US $ 6130 million and declined to US $ 4322 million in the year 2004. However, from the year 2005, the foreign investors started showing strong interest in investing their money in India ; thus, FDI inflows witnessed a significant upsurge from US $ 6051 million in 2005 and rose to US $ 41874 million by the end of 2009. Due to the economic crisis in Europe, the FDI inflows into India reduced to US $ 37745 million in 2010 and further dropped to US $ 34847 million by the end of the year 2011. In 2012, FDI inflows rose to US $ 46556 million, however, in the year 2013 and 2014, FDI inflows into India declined. Thereafter, the total FDI inflows increased to US $ 55457 million by the end of the financial year 2015-16. The total FDI inflows from 2001-2016 have been summed at US $ 424160 million, and its mean is recorded at US $ 26510 million with the yearly deviation of US $ 17989.17 million, respectively and the compounded annual growth rate (CAGR) was 17.81%.

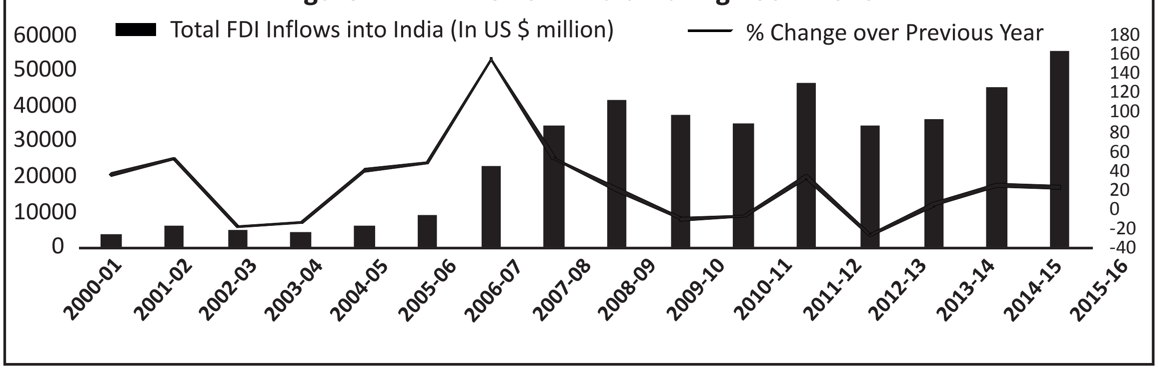
The percentage change in FDI growth rate over the previous year was irregular as shown in the Figure 1. There were ups and downs in the growth percentage of FDI during 2001 to 2016. In the 5 years : 2003, 2004, 2010, 2011,

Table 1. Total Foreign Direct Investment (FDI) Inflows in India

Year	Value (in US $ Million)	Index	% Change over Previous Year
2000-01	4029	100	-
2001-02	6130	152.15	52.15
2002-03	5035	124.97	-17.86
2003-04	4322	107.27	-14.16
2004-05	6051	150.19	40
2005-06	8961	222.41	48.09
2006-07	22826	566.54	154.73
2007-08	34835	864.61	52.61
2008-09	41874	1039.31	20.21
2009-10	37745	936.83	-9.86
2010-11	34847	864.90	-7.68
2011-12	46556	1155.52	33.60
2012-13	34298	851.28	-26.33
2013-14	36046	894.66	5.10
2014-15	45148	1120.58	25.25
2015-16	55457	1376.45	22.83
Total	424160		
Mean	26510		23.67
S.D	17989.17		
C.V	0.68		
CAGR	17.81%		

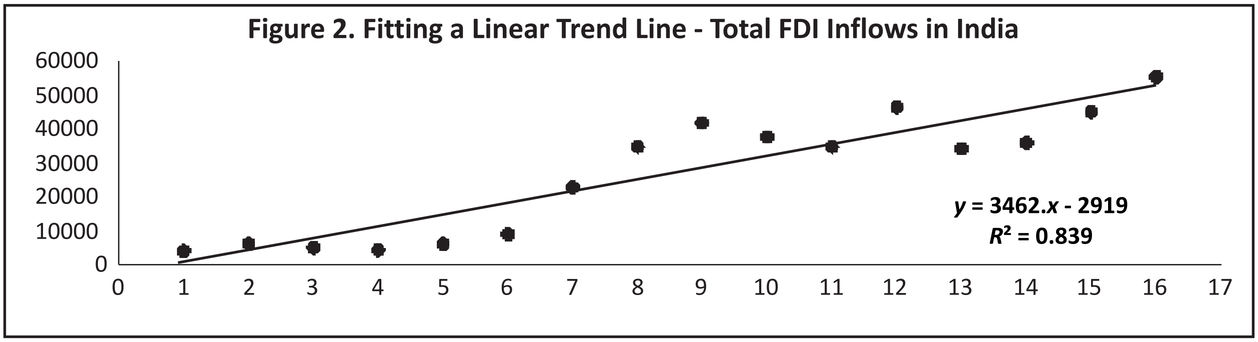
Source: Compiled from Fact Sheet on Foreign Direct Investment, DIPP

Figure 1. FDI Inflows in India During 2001- 2016



and 2013, the growth rate was found to be negative. The growth rate was positive from the year 2004 and during 2006, it was very high, with 154% growth rate. However, it decreased in 2007 and 2008 due to the global economic crisis. The growth rate increased in 2012 and declined in 2013. Thereafter, the FDI growth rate remained positive in the last three years, that is, in 2014, 2015, and 2016.

(2) Trend Pattern of Foreign Direct Investment (FDI) Inflows in India (2001 - 2016) : The linear trend line model



is a special case of the simple regression model where in the time index variable, that is, 1, 2, 3… is the independent variable. A linear trend line equation has been traced through scatter diagram which shows linear fluctuations in FDI in India figures and the fitting trend line. The model for linear trend line is :

$$y = a + bx$$

where,

y = dependent variable,
a = intercept,
b = slope coefficient or increase per period.

The Figure 2 shows the trend pattern of FDI inflows in India over the last 16 years. There has been a rising trend in the FDI in India with little variations during the period of the study. In the present study, the linear trend line equation is :

$$FDI\ Flows : y = 3462.2x - 2919$$

In the above model, the R- squared value is 0.8396, which shows the trend line reliability which implies that the trend line has a good fit to the data. The closer the value of R- squared to 1, the stronger is the forecast. On the basis of the above linear trend line equation, the prediction of the inflows of foreign direct investment (FDI) in India in figures have been made for the period of the next 5 years, that is, from 2016-17 to 2020-21 depicted in the Table 2. The Table 2 reveals that the total volume of India's total inflows of foreign direct investment (FDI) has been projected at US $ 55938.44 million in 2016-17 and with an increasing trend in the long-run, it is expected to reach to US $ 69787.24 million by 2020-21, accounting for a 1.25 times increase.

Table 2. Forecasted Figure of FDI in India

Year (Apr-Mar)	Total FDI in India (in US $ million)
2016-17	55938.44
2017-18	59400.64
2018-19	62862.84
2019-20	66325.04
2020-21	69787.24
Total	**314314.20**

*Estimated and forecasted by Trend Analysis in MS Excel

(3) Routes of Foreign Direct Investment Inflows in India (2007-2016) : The entry of FDI in India is allowed through two routes:

(i) Automatic Route : FDI under the automatic route stands for less restricted or more liberalized regulation, that is, it does not involve prior approval either by the Government of India or the Reserve Bank of India (RBI).

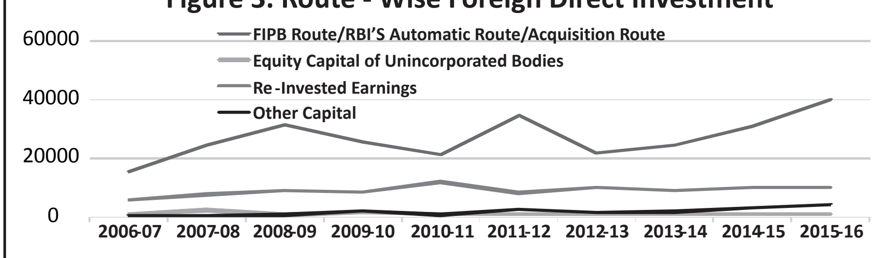
(ii) Government/ FIPB Approval Route : Under this route, government agencies regulate and scrutinize foreign investment while approving it. As laid down in the FDI policy, the proposals of FDI under approval route are considered either by :

Table 3. Statement of Routes of Foreign Direct Investment Inflows in India (Amount in US $ Million)

Year	Equity				Re-Invested Earnings		Other Capital	
	FIPB Route/RBI'S Automatic Route/Acquisition Route		Equity Capital of Unincorporated Bodies					
	Value	Index	Value	Index	Value	Index	Value	Index
2006-07	15585	100	896	100	5828	100	517	100
2007-08	24573	157.67	2291	255.69	7679	131.76	300	58.03
2008-09	31364	201.24	702	78.35	9090	155.97	777	150.29
2009-10	25606	164.30	1540	171.88	8668	148.73	1931	373.50
2010-11	21376	137.16	874	97.54	11939	204.86	658	127.27
2011-12	34833	223.50	1022	114.06	8206	140.80	2495	482.59
2012-13	21825	140.04	1059	118.19	9880	169.53	1534	296.71
2013-14	24299	155.91	975	108.82	8978	154.05	1794	347.00
2014-15	30933	198.47	978	109.15	9988	171.38	3249	628.43
2015-16	40001	256.66	1042	116.29	10049	172.43	4365	844.29
Total	270395		11379		90305		17620	
Mean	27039.50		1137.90		9030.50		1762	
S.D	7216.65		458.31		1634.19		1311.58	
C.V	0.27		0.40		0.18		0.74	
CAGR	9.88%		1.52%		5.6%		23.78%	
% Contribution by the Channel in 2006-07	68.28%		3.93%		25.53%		2.26%	
Proportion of Changes in 2015-16	72.13%		1.88%		18.12%		7.87%	

Source: Compiled from Fact Sheet on Foreign Direct Investment, DIPP

Figure 3. Route - Wise Foreign Direct Investment



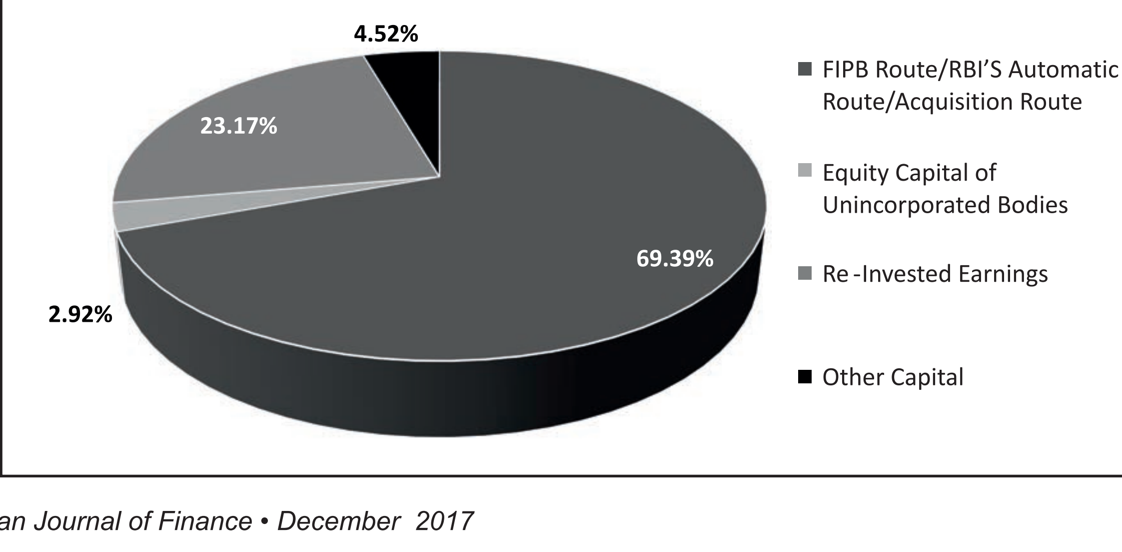
- Foreign Investment Promotion Board (FIPB),
- Cabinet Committee on Economic Affairs (CCEA),
- Cabinet Committee on Securities,
- Department of Economic Affairs (DEA),
- Department of Industrial Policy & Promotion.

Approval of investments up to ₹ 5000 crores are considered by the Foreign Investment Promotion Board (FIPB), while CCEA considers investments above this limit.

The Table 3 clearly depicts that the proportion of FDI inflows through various regulatory channels have changed between the study period from 2006-07 to 2015-16. FDI inflow through the automatic routes was valued at US $15585 million in 2006-07, thereafter it faced a fluctuating trend and increased and rose to US $40001 million in 2015-16. However, a compounded growth rate of 9.88% was recorded. There has been a rise in share of inflows through the RBI's automatic route since the year 2006-07. In November 2005, the Indian government passed the FDI regulation of allowing most of the FDI activities under automatic route, which resulted in an increase in the contribution of FDI made through automatic routes from 68.28% in 2006-07 to 72.13% in 2015-16, that is, at a growth of 3.85% over a period of 10 years. It can be further inferred from the Table 3 that investment by unincorporated bodies faced high variations - from US $ 896 million in 2006-07, it rose tremendously to US $ 2291 million in 2007-08 and saw an immediate fall to US $ 702 in the very next year, that is, 2008-09. It further underwent similar fluctuations until 2015-16 and thus, a low CAGR of 1.52% was recorded. As a result of restructuring in FDI repatriation profits and reinvestment regulations, reinvestment capital inflows increased from US $ 5828 million in 2006-07 to US $ 10049 million by the end of 2015-16 with a compound annual growth rate of 5.6%. Similarly, the other capital inflows increased gradually from US $ 517 million in 2006-07 to US $ 4365 million in 2015-16, with little variations during the period. A record CAGR of 23.78% was recorded. It can be concluded from the multi-fold increase in the several years that FDI inflows through various channels changed significantly during the study period.

The Figure 3 clearly shows that over the last 10 years, the proportion of foreign investment through FIPB Route/RBI'S Automatic Route and other capital has increased except for equity capital of unincorporated bodies - equity route and reinvested earnings. In the year 2006-07, the share of reinvested earnings was 25.53%, which declined to 18.12 % in 2015-16. However, the share of other capital increased from 2.26% to 7.87% during the period.

Figure 4. Percent Share of Routes of Foreign Direct Investment in India (2007-16)



It can be observed from the Figure 4 that among the available routes of investment, the foreign investors preferred to invest in Indian companies through equity shares as compared to reinvested capital and other capital. Due to liberalized FDI policy of India, the FIPB Route/RBI's Automatic Route/Acquisition Route has been the most significant source of FDI inflows for India, reporting an investment of 69.39% of the total FDI during the period. As a result of government initiatives of providing special tax benefits and other facilities for reinvestment of earnings, the reinvested earnings with 23.17% of the total FDI emerged as the second most preferred route for the investors.

(4) Top Investing Countries of India : The Table 4 depicts the country-wise total amount of FDI equity inflows in India from April 2000 to March 2016 in terms of US $ million and percentage of country's investment in total FDI inflows in the country. There were 150 countries investing in India among which Mauritius had the highest foreign investment in India. Mauritius was at the top in investing FDI in India followed by Singapore, UK, Japan, and USA.

The Figure 5 prepared on the basis of Table 4 illustrates the share of top countries investing FDI in India. It shows the percentage of FDI of different countries with total FDI inflows from April 2000 - March 2016 in the terms of US $ million. The Figure 5 reveals that Mauritius was at the top among the countries investing FDI in India. FDI inflows from Mauritius constituted about 33% of the total FDI in India and it enjoys the top position on India's FDI map since 2000. The Double Taxation Treaty, that is, DTAA - Double Taxation Avoidance Agreement between the two countries is the reason behind the dominance of Mauritius, which favors routing of investment through this country.

With 16% of the total FDI in India, Singapore held the second position among the countries investing in India. The U.K., Japan, and U.S.A. stood at third, fourth, and fifth positions among the top investing countries in India. Among all the top 10 investor countries, Mauritius, Singapore, U. K., Japan, and U.S.A are the prime investors of India. From the analysis of Table 5 and Figure 6, it has been observed that Mauritius was in the top position from 2006-07 till 2012-13, its investments rose from US $6363 million in 2006-07 to US $ 9497 million in 2012-13. Thereafter, the FDI inflows from Mauritius witnessed a sudden fall to US $ 4859 million in 2013-14. The FDI inflow share of Mauritius in total FDI of India decreased from 27.88% to 15.07% during the study period.

Table 4. Statement of Top 10 Countries Investing in India

Ranks	Country	Cumulative Inflows Apr 2000- Mar 2016	%age of Total Inflows (in terms of US $)
1.	**Mauritius**	95910	33%
2.	**Singapore**	45880	16%
3.	**U. K.**	23108	8%
4.	**Japan**	20966	7%
5.	**U.S.A**	17943	6%
6.	**Netherlands**	17314	6%
7.	**Germany**	8629	3%
8.	**Cyprus**	8552	3%
9.	**France**	5111	2%
10.	**UAE**	4030	1%
11.	**Other Countries**	41191	15%
Total FDI Inflows From All Countries		**288634**	**100%**

Source: Compiled from Fact Sheet on Foreign Direct Investment, DIPP

Figure 5. Share of Investing Countries in the Total FDI in India

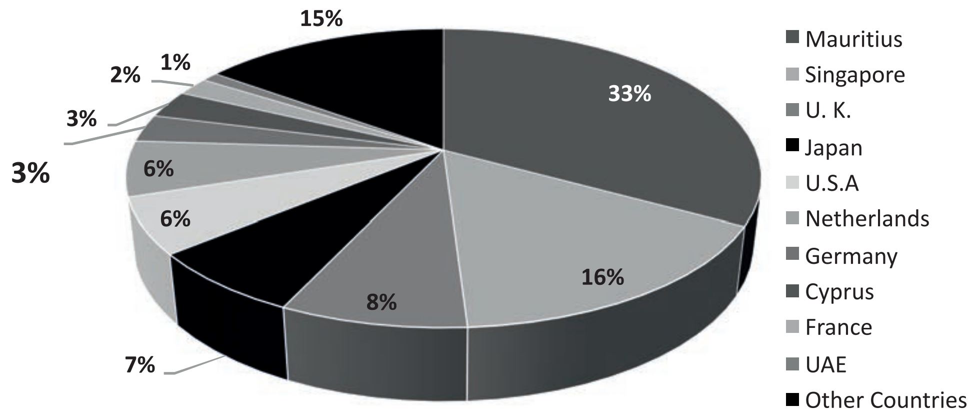


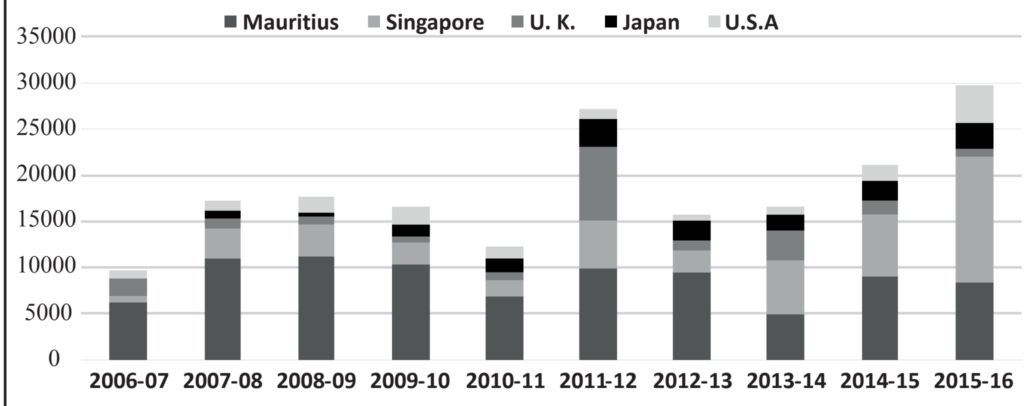
Table 5. Statement of Top Five Investing Countries in India (Values in US $ in million)

Year	Mauritius		Singapore		U. K.		Japan		U.S.A	
	Value	Index	Value	Index	Value	Index	Value	Index	Value	Index
2006-07	6363	100	578	100	1878	100	85	100	856	100
2007-08	11096	174.38	3073	531.66	1176	62.62	815	958.82	1089	127.22
2008-09	11208	176.14	3454	597.58	864	46.01	405	476.47	1802	210.51
2009-10	10376	163.07	2379	411.59	657	34.98	1183	1391.76	1943	226.99
2010-11	6987	109.81	1705	294.98	755	40.20	1562	1837.65	1170	136.68
2011-12	9942	156.25	5257	909.52	7874	419.28	2972	3496.47	1115	130.26
2012-13	9497	149.25	2308	399.31	1080	57.51	2237	2631.76	557	65.07
2013-14	4859	76.36	5985	1035.47	3215	171.19	1718	2021.18	806	94.16
2014-15	9030	141.91	6742	1166.44	1447	77.05	2084	2451.76	1824	213.08
2015-16	8355	131.31	13692	2368.86	898	47.82	2614	3075.29	4192	489.72
Total	87713		45173		19844		15675		15354	
Mean	8771.30		4517.30		1984.40		1567.50		1535.40	
S.D	2117.23		3770.10		2203.09		946.85		1045.54	
C.V	0.24		0.83		1.11		0.60		0.68	
CAGR	2.76%		37.23%		-7.11%		40.86%		17.22%	
% Contribution by the Country in Total FDI 2006	27.88%		2.53%		8.23%		0.37%		3.75%	
% Contribution by the Country in Total FDI 2015	15.07%		24.69%		1.62%		4.71%		7.56%	
Ranks in 2006-2007	1st		4th		2nd		5th		3rd	
Ranks in 2015-2016	2nd		1st		5th		4th		3rd	

Source: Compiled from Fact Sheet on Foreign Direct Investment, DIPP

Singapore being the second major investor, its investment increased from US $578 million in 2006-07 to 23.69 times to a massive amount of US $13692 million in 2015-16 and with a compounded annual growth rate of 37.23%. FDI inflow share of Singapore in total FDI of India increased immensely from 2.53% to 24.69% during the study period. The DTAA with Singapore includes Limit-of-Benefit (LoB) clause, due to which foreign

Figure 6. Top Five Countries' Yearly Foreign Direct Investment Inflows in India



investors in Singapore showed keen interest in investing in India.

The United Kingdom is the third major investor in India's top investing countries, with a fluctuating trend - its investments decreased substantially from US $ 1878 million in 2006-07 to US $ 898 million in 2015-16. Its portion in total FDI of India decreased from 8.23% to 1.62% during the study period with a negative compounded annual growth rate of (-) 7.11%. This may be due to the economic crisis in Europe.

Followed by the United Kingdom, Japan was the fourth key investor in India ; its investment increased from US $85 million in 2006-07 to the amount of US $2614 million in 2015-16. With a fluctuating trend, its portion in total FDI of India increased from 0.37% to 4.71 % and recorded the highest compounded annual growth rate of 40.86%. Subsequently, U. S. A. was the fifth major investor in India, its investment increased from US $856 million in 2006-07 to US $ 4192 million in 2015-16, though there were high fluctuations in the middle of the decade. The FDI inflows from U. S. A. reduced to US $ 557 million in 2012-13 and recovered very well from the next year. However, the compounded growth rate was 17.22% and its contribution in total FDI of India increased from 3.75% in 2006-07 to 7.56% during the study period. The reason could be that both countries have close relations and the U.S. is the largest trading partner of India.

A further analysis of Table 5 reveals that in 2015-16, Singapore replaced Mauritius from its first position on account of the General Anti Avoidance Rules (GAAR) and re-negotiation of the tax avoidance treaty, while U. S. A continued to be on the third place. Japan was ranked up by one place to the fourth place, but unfortunately, the position of U.K. fell drastically from 2nd place in 2006-07 to the 5th place in 2015-16.

Sector - Wise FDI Inflows in India : The Sectoral composition of FDI over the period of April 2000 to March 2016 reveals that with US $50792 million, the service sector was the largest recipient of FDI inflow to India. Followed by the service sector, the construction development sector, the computer software & hardware sector, the telecommunications, and the automobile industry were the next preferred sectors with US $ 24188 million, US $ 21018 million, US $ 18382 million, and US $ 15065 million, respectively as depicted in the Table 6.

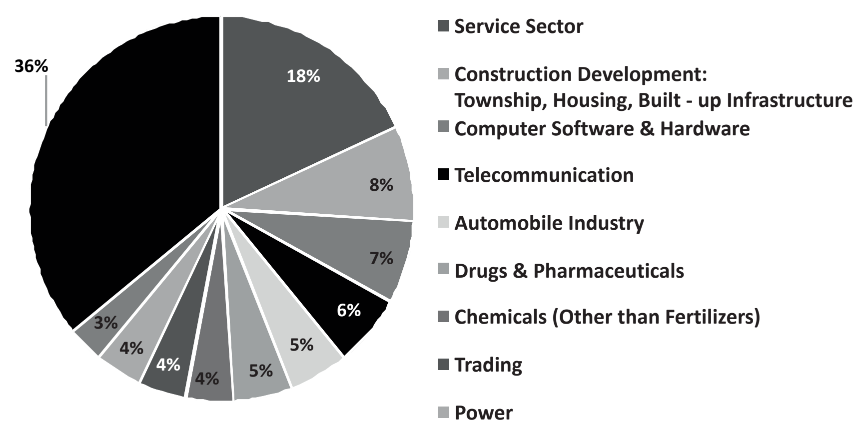
On the basis of the Table 6, the Figure 7 demonstrates the sector-wise FDI equity inflows in terms of percentage with total FDI inflows. The sector-wise analysis of FDI with the help of the Figure 7 reveals that the share of service sector, including finance, banking, insurance, etc. in cumulative FDI flows was 18% of the inflow, of which total foreign direct investment was maximum. After that, the construction development sector follows with 8% followed by computer software & hardware, telecommunications, automobile industry, and drugs & pharmaceuticals with 7%, 6%, 5%, and 5%, respectively ; whereas, all the other sectors totally contributed about 51% of the cumulative FDI inflows in India.

Table 6. Sector Wise Cumulative FDI Inflows in India (in Terms of US $ Million)

Ranks	Sector	Cumulative Inflows Apr 2000- Mar 2016	%age of Total Inflows
1.	Service Sector	50792	18%
2.	Construction Development: Township, Housing, Built-up Infrastructure	24188	8%
3.	Computer Software & Hardware	21018	7%
4.	Telecommunication	18382	6%
5.	Automobile Industry	15065	5%
6.	Drugs & Pharmaceuticals	13849	5%
7.	Chemicals (Other than Fertilizers)	11900	4%
8.	Trading	11872	4%
9.	Power	10476	4%
10.	Hotel & Tourism	9227	3%
11.	Other Sectors	152657	36%
	Grand Total	**288634**	**100%**

Source: Compiled from Fact Sheet on Foreign Direct Investment, DIPP

Figure 7. Percentage Share of Sectors in Total FDI Inflows in India



Among the top 10 sectors attracting the highest FDI, the service sector, construction development sector, computer software & hardware, telecommunications, and automobile industry received maximum amount of FDI during the period from April 2006 to March 2016. The resultant Table 7 and Figure 8 depict that in the past decade, the Indian service sector showed signs of slowdown from the year 2008-09, which shall be accredited to the European debt crisis and the overall slowdown in developed countries.

The FDI inflows received in the service sector indicated a fluctuating trend with slight swings until 2010-11, then in 2011-12, the inflows increased to US $ 5216 million. Again, from 2012-13 onwards, the inflows were in the downswing, reaching US $ 4833 million and US $ 2225 million in 2012-13 and 2013-14, respectively followed by a rise to US $ 4443 million and US $ 6889 million in 2014-15 and 2015-16, respectively. However, it recorded an overall compounded annual growth rate of 3.98%.

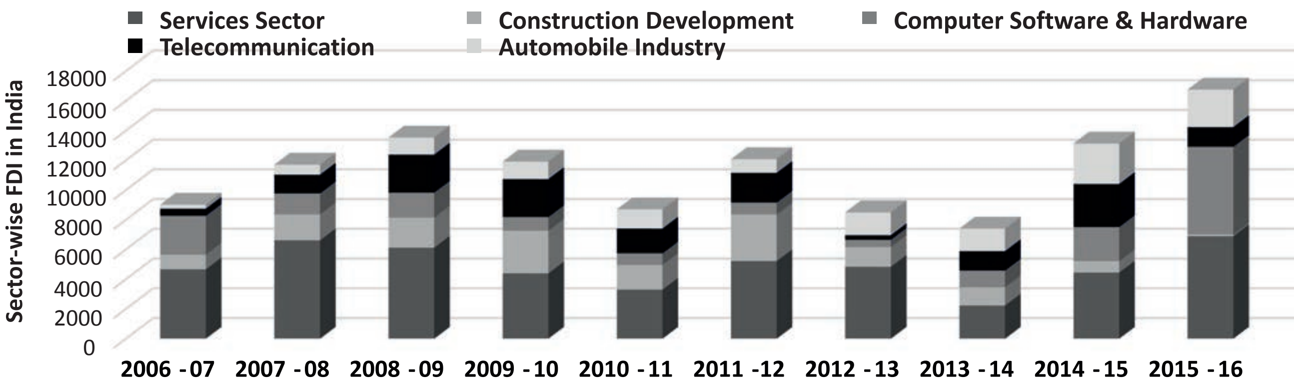
The FDI investment in the construction development sector reached its peak in the year 2011-12, which recorded a hike to US $ 3141 million from US $985 million in 2006-07, but by the end of 2012-13, it revealed a downtrend and reduced to US $ 113 million by the end of 2015-16 with a negative CAGR of 19.47%. A similar downward

Table 7. Top Five Sector Attracting FDI in India (Values in US $ in Million)

Year	Services Sector (Financial & Non-Financial)		Construction Development		Computer Software & Hardware		Telecomm-unication		Automobile Industry	
	Value	Index	Value	Index	Value	Index	Value	Index	Value	Index
2006-07	4664	100	985	100	2614	100	478	100	276	100
2007-08	6615	141.83	1743	176.95	1410	53.94	1261	263.81	675	244.57
2008-09	6116	131.13	2028	205.89	1677	64.15	2558	535.15	1152	417.39
2009-10	4392	94.17	2868	291.17	919	35.16	2554	534.31	1177	426.45
2010-11	3296	70.67	1663	168.83	780	29.84	1665	348.33	1299	470.65
2011-12	5216	111.84	3141	318.88	796	30.45	1997	417.78	923	334.42
2012-13	4833	103.62	1332	135.23	486	18.59	304	63.60	1537	556.88
2013-14	2225	47.71	1226	124.47	1126	43.08	1307	273.43	1517	549.64
2014-15	4443	95.26	769	78.07	2296	87.83	2895	605.65	2726	987.68
2015-16	6889	147.71	113	11.47	5904	225.86	1324	276.99	2527	915.58
Total	48689		15868		18008		16343		13809	
Mean	4868.90		1586.80		1800.80		1634.30		1380.90	
S.D	1442.29		923.76		1595.97		873.72		759.76	
C.V	0.30		0.58		0.89		0.53		0.55	
CAGR	3.98%		-19.47%		8.49%		10.73%		24.79%	
% Contribution by the Sector in Total FDI 2006	20.43%		4.32%		11.45%		2.09%		1.21%	
% Contribution by the Sector in Total FDI 2015	12.42%		0.20%		10.65%		2.39%		4.56%	

Source: Compiled from Fact Sheet on Foreign Direct Investment, DIPP

Figure 8. Top Five Sectors' Yearly FDI in India



trend is observed in the computer software & hardware sector till 2012-13 as the FDI reduced to US $ 486 million from US $ 2614 million in 2006-07, but from 2013-14 onwards, the inflows were in the upswing, reaching US $2296 million and US $5904 million in 2014-15 and 2015-16, respectively. However, it recorded a CAGR of 8.49%.

A fluctuating trend has been observed in the telecommunication sector. The FDI investment rose from US $ 478 million in 2006-07 to US $ 2554 million in 2009-10. On the whole, the tele- communications sector witnessed a fluctuating trend until 2015-16, reaching to US $ 1324 million. This sector recorded a CAGR of 10.73%, which is more than that of the service sector, construction development sector, and computer software and hardware sector.

The FDI investments in the automobile industry showed a positive sign of growth. The Table 7 indicates a rising trend with slight fluctuations in FDI in 2011-12, but from 2012-13 onwards, the inflows were in the upswing, reaching its peak to US $ 2726 million in the year 2014-15 followed by a little decline to US $ 2527 million in 2015-16. A record CAGR of 24.79% was witnessed during the period of the study.

A further comparative study of the percentage contribution made by the sectors in 2006-07 and 2015-16 reveals that the contribution of the service sector and the construction development sector declined significantly by 8.01% and 4.12%, respectively while the change in the contribution of the computer software & hardware sector and the telecommunications sector remained insignificant. The contribution of the automobile industry increased significantly from 1.21% to 4.56% during the period of the study.

Findings

The key findings emerging out of the present study have been listed below :

- Over the last 16 years, there has been a significant rise in the total FDI inflows in India with substantial variations in volume during the period. Overall, there has been an increasing trend in the inflows of FDI in India while it escalated widely during the last three years.

- There has been substantial rate of growth of FDI in India annually, but it fluctuated vigorously and even it was negative in some years. The growth rate of FDI over the previous year was, on an average, found to be 23.67% .

- The forecasted values of foreign direct investment (FDI) in India revealed that in next 5 years, that is, from 2016-17 to 2020 - 21, there shall be an increasing trend in FDI inflows in India.

- Over the last 10 years period, the proportion of foreign direct investment through the FIPB Route/RBI's Automatic Route and other capital has increased considerably except for equity capital of unincorporated bodies-equity route and reinvested earnings.

- The analysis of country wise inflows of FDI in India during the period from April 2000 - March 2016 revealed that among the 150 countries, Mauritius has been the largest direct investor in India followed by Singapore, UK, Japan, and U.S.A accounting for 70% of the total inflows of FDI in India.

- There has been a significant decline in the share of Mauritius and U. K. in the total FDI in India, while the share of Singapore, Japan, and U.S.A in the total FDI in India increased substantially during the past decade.

- The Sectoral composition of FDI over the period of April 2000 to March 2016 revealed that the service sector has been the largest recipient of the inflows of FDI in India followed by the construction development sector, the computer software & hardware sector, the telecommunications sector, and the automobile industry.

- Over the last decade, there has been a noteworthy decline in the contribution of the service sector and the construction development sector in the total FDI. The contribution of the automobile industry increased considerably during the period of the study, while the variation in the contribution of the computer software & hardware sector and the telecommunication sector in the total FDI inflow remained insignificant.

Suggestions

It is apparent from the discussion that there are some factors which are restraining and producing the changes in the pattern of the flow of FDI in India. Hence, the changing pattern of the flow of FDI in India should be noticed by the Government and it should put an effort to find out the reasons behind it so as to take counteractive actions for the removal of impediments faced by investors and provide a suitable environment for investment. The Government should review the existing FDI policies and reframe the new ones in lieu of changing pattern of FDI in India in order to create more opportunities for investment and to ensure continuous flow of FDI in the country. The Government should also focus on maximizing political and social stability along with a regulatory environment and maintain good foreign relations as well in order to overcome the challenges faced in attracting FDI.

Research Implications

The implications of FDI for businesses, economic development, and research is undeniable. The findings of the study will allow the policy makers to take further initiatives to redesign existing policies and also frame new policies for FDI in India based on where we are now and where we want to reach. Another important implication of the study is the usefulness of the information provided by the findings of the study. The information about the changing pattern of FDI in various sectors of the economy serves as a vital information both for the investors for diversifying their investments in various sectors and also for the policy makers and the economists to formulate appropriate strategies. Similarly, results in regard to the changing pattern of FDI through various routes and countries also has significant policy implications. Although it is not possible to forecast the unknown value of anything exactly, but the present study attempts to forecast the inflows of FDI in India for the next 5 years and provides an insight into issues relating to forecasting. The forecast of foreign direct investment serves as a means to evaluate the present policies' effectiveness on the future FDI inflows. The policy makers should use such forecasts very cautiously to formulate better policies and strategies to improve India's FDI attractiveness. Besides these, the present study also addresses the need to fill the research gap due to the small number of literature available on the changing trend patterns of FDI in India. Thus, the prime contribution of the present study is the addition made towards the existing body of FDI literature.

Conclusion

It can be concluded from the study that in the recent years, although India has shown a rising trend, but the growth rate of FDI over previous years fluctuated vigorously, which was unfavorable for the Indian economy. The fluctuations in FDI inflows into the country during the period after 2008 could be attributed to uncertainties in the global economy together with the economic slowdown in India, and the lack of political unanimity on issues concerning FDI. Despite this, India has shown positive signs of growth and has been able to attract FDI through various routes during the period of the study.

Similar results of increasing trend in FDI in India was also revealed by few of the studies which includes the studies of Gite and Singh (2015), Sagar and Lalitha (2013), and Hooda (2011). The trend analysis revealed that there will be an increasing trend of FDI inflows in India in the future, which is found consistent with the findings of Gite and Singh (2015), but the actual amount of expected FDI inflows in India were not same. D'Costa and Joseph (2016) ; Rao and Sailaja (2015) ; Das (2012) ; and Saini, Premlata, and Yadav (2013) are a few extant studies, which also revealed that Mauritius has been the largest direct investor in India followed by Singapore, UK, Japan, and U.S.A and the service sector has been the largest recipient of the inflows of FDI in India.

Due to the liberalized FDI policy of India, the foreign investors preferred to invest in Indian companies through equity shares as compared to the routes of reinvested capital and other capital. The share of Singapore, Japan, and U.S.A in the total FDI in India increased during the past decade ; on the other hand, the share of Mauritius and U. K. in the total FDI in India declined, which is an issue of concern.

The top five sectors that attracted highest amounts of FDI inflows are namely the services sector, followed by the construction development sector, the computer software & hardware sector, the telecommunications sector, and the automobile industry. A changed pattern of FDI inflows is revealed from the sector wise analysis, that is, the decline in the contribution of the service sector and the construction development sector in the total FDI, while the contribution of the automobile industry increased considerably during the period of the study. This prompts a need for further debate on reviewing the existing FDI cap by the government in these sectors.

Limitations of the Study and Scope for Further Research

The following are the major limitations of the study :

- The study is confined only to the time period of 16 years to study the yearly trend of FDI in India and to forecast it for the next 5 years, while a time period of only 10 years has been taken into consideration to assess the progress of flow of foreign direct investment in terms of entry route - wise, investing country - wise, and sector-wise. A longer time period may provide different results.
- The study mainly depends upon the published secondary data which was assumed to be reliable.
- The study primarily focused only on the trend and the progress of FDI in India in terms of entry route-wise, investing country-wise, and sector-wise due to time constraints as well as unavailability of data.
- The trend pattern of FDI was studied using the linear trend line equation only. Thus, the study is further exposed to the limitations of the tools itself as it considers the time series data only for forecasting. The results may vary as the number of years are changed. Use of various other methods of forecasting to study the trend may give a better view.

As the study clearly indicates towards some factors which are restraining and producing the changes in the pattern of the flow of FDI in India, this calls for more research to be done into what is creating those trends in FDI. Further, an in-depth analysis can be conducted on factors that are leading to the changes in the pattern of FDI inflows from various routes, from various countries, and in various sectors. The future work may also focus upon an analysis of yearly trend of FDI using various other methods of forecasting with a longer time period or with monthly data points.

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