ISSN: 2278-3369

International Journal of Advances in Management and Economics
Available online at www.managementjournal.info

RESEARCH ARTICLE

Foreign Direct Investment to Service Sector in India

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Abstract

Foreign Direct Investment (FDI) plays important role in the economic development of a country. In 1991, Liberalization, Privatization and Globalization aimed at making the Indian economy a faster growing economy and globally competitive. Service sector is one of the largest and fastest growing sectors in India. The share of services in India's GDP at factor cost (at current prices) rose from 51 per cent in (2000-01) to 57 per cent in (2013–14). This paper highlights the role of FDI in various sectors like financial services, Telecommunication services, Information Technology services, Construction development etc. in the Indian economy and contribution of each sector year wise. We have dealt with the effect of FDI inflows on the Indian economy over the period of 2000 to 2014 on the basis of secondary data. A statistical model was developed to investigate the relationship between FDI inflow and Gross Domestic Product in service sector. This analysis has revealed that Foreign Direct Investment has positive and significant impact on GDP.

Keywords: *Foreign Direct Investment, Service Sector, Globalization.*

Introduction

The services sector is a vital component of the Indian economy. This sector in India comprises a wide range of activities, including social and personal services, transportation, communication, financial, real estate and business services and trading. The sector, which accounts for around 60 per cent of the country's gross domestic product (GDP), has emerged as one of the largest and fastest-growing sectors not just in the country but in the global landscape subsequently, its contribution in global output and employment has been substantial. For most countries around the world, service sector is the largest part of their economy. The services sector in India received foreign direct investment $39,417 million during the period April 2000–February 2014, data released by Department of Industrial Policy and Promotion (DIPP). Services constitute a major portion of India's GDP with a 57 per cent share in GDP at factor cost (at current prices) in 2013-14 an increase of 6 percentage points over 2000-01.

Post Liberalization Era

In 1991, Liberalization, Privatization and Globalization aimed at making the Indian economy a faster growing economic and globally competitive. Foreign capital is seen as a way of filling in gaps between the domestically available supplies of savings, government revenue, foreign exchange and the planned investment necessary to achieve developmental targets. This is very true in case of various developing countries like India. The series of reforms undertaken with respect to Trading ,Financial Sector (Banking & Insurance), Telecommunication , Real Estate, Construction Sector, Tourism, Hotels & Restaurant ,Housing & Townships Business. Such service sector has almost hundred percent investment with different routes and witnessed a major boom and contributes to both employment and national income in the growth of Indian economy after liberalization.

Largest share of investment by Greenfield and Merger & Acquisition .Greenfield tends to where a parent company starts a new venture in a foreign country by constructing new factories and/or stores. In 2013, the value of FDI in Greenfield projects in the services sector grew by 20 per cent to US$ 385 billion as compared to 9 per cent growth in total value of FDI in Greenfield projects. Merger & Acquisition tends to transfer of existing assets from local firms takes place. Services sector declined by 7 per cent to US$ 155 billion in 2013 as compared to 5 per cent growth in total FDI value in M& A as per economic survey in both cases.

Literature Review

FDI is expected to accelerate or contribute to the economic growth of all countries. The nexus between FDI and economic growth has been a subject of great discussion for several past years. Feenstra and Markusen [1] analyzed that FDI is an important vehicle for the transfer of technology and knowledge and it demonstrates that it can have a long run effect on growth by generating increasing return in production via positive externalities and productive spillovers. Thus, FDI can lead to a higher growth by incorporating new inputs and techniques. Kashibhatla and Sawhney [2] supports a unidirectional causality from GDP to FDI, not the reverse. This may be due to the fact that for a developed country, FDI follows GDP, as GDP has an indicator for market size.

Lensik [3] examine the impact of uncertain capital flows on the growth of 60 developing countries during the 1990"s. Study distinguished between the total capital flows, private capital flows and official capital flows. For the three types of capital flows, they derived a yearly uncertainty measure. They used the yearly uncertainty measures in Ordinary Least Square (OLS) to explain the impact of uncertain capital flows on growth. They conclude that both types of estimates suggest that uncertain capital flows have a negative effect on financial market and growth in developing countries.

Carkovic and Levine [4] concluded that the FDI inflows do not exert an independent influence on economic growth. While sound economic policies may facilitate in increasing both FDI and Economic growth. This result is inconsistent with the findings that FDI exerts a positive impact on growth independent of other growth determinants.

Sharma [5] used a multiple regression technique to evaluate the role of FDI on the export performance in the Indian economy. The study concluded that FDI does not have a statistically significant role in the export promotion in Indian Economy. This result is also confirmed by the study of Pailwar (2001) and the study also argues that the foreign firms are more interested in the large Indian market rather than aiming for the global market.

Chakraborty and Basu [6] tried to find the short run dynamics of FDI and growth. This study reveals that GDP in India is not Granger caused by FDI and the causality runs more from GDP to FDI and the trade liberalization policy of the Indian government had some positive short run impact on the FDI flow.

Kohli [7] examines how capital flows affect a range of economic variables such as exchange rates, interest rates of foreign exchange reserves, domestic monetary condition and financial system in India during the period 1986 to 2001. Inflows of foreign capital have a significant impact on liquidity, volatility, stock market growth and domestic money supply.

Chakraborty & NunnenKamp [8] analyzed the effect of foreign direct investment and economic reforms in India. The study focused on industry specific FDI and its growth, by using Granger Causality and panel co integration. The results showed that the growth effects of FDI vary widely across different sector. There was no casual relationship found in case of Primary sector. While only transitory effect of FDI on output was found in the service sector.

Fortanier [9] studied the role of investor country in the event of foreign investment and growth. A panel data comprising of six major investor and 71 host countries for the period of 1989- 2002 was used. The results showed that growth consequence of FDI differs by country of origin, and the effect of origin country also varies depending upon the host country characteristics.

Wang [10] examined logistics FDI and GDP in two aspects of time series and growth rate of china. They found empirically that logistic FDI improved the quality of foreign investment and promoted the change of China's economic growth pattern to ensure the development of China's economy.

Tiwari & Mutascu [11] analyzed the relationship between economic growth and FDI for Asian countries using Panel data approach. The sample period for this purpose comprises 1986 to 2008, and it included data of 23 countries it was concluded from the study that both foreign direct investment and exports enhances the growth process.

Agrawal [12] investigated the effect of FDI on economic growth of China and India. They studied possible reasons behind China's great showed of FDI and the lessons India should learn from China for better utilization of FDI.

Rachidi & Saidi [13] FDI has a significant positive impact on real per capita growth. Also no evidence was found that Portfolio Investment enhances output growth in developing countries. However this is positive and significant for developed countries, when the GMM estimator is used. For random effect the coefficient of FDI remains positive but statistically insignificant, and the portfolio investment remains negative and insignificant for all the countries

Devajit [14] tried to find out how FDI seen as an important economic catalyst of Indian economic growth by stimulating domestic investment, increasing human capital formation and by facilitating the technology transfers. So, we observe that several studies have focused on the case of developing countries related to foreign direct investment interacting with different economic variables. However, none of these studies has found sector specific. Therefore, we move ahead particular to service sector.

Objective and Research Methodology

In this paper we have to find out the Role and effect of FDI inflows has significant effect on our GDP (service sector). For that we set up a statistical hypothesis as:

$H0_1$: There is no significant relationship between FDI inflow and percentage growth of service sector GDP
$H1_1$: There is a significant relationship between FDI inflow and percentage growth of service sector GDP

$H0_2$: There is no significant relationship between Service sector GDP and overall GDP.
$H1_2$: There is a significant relationship between Service sector GDP and overall GDP.

Research Methodology

Correlation Analysis we used the technique of correlation to test the statistical significance of the association between FDI and GDP (in service sector). Correlation helps to measures the strength and direction of a linear association between two variables.

Regression analysis is one of the most commonly used statistical techniques used in almost all fields. Its main objective is to explore the relationship between a dependent variable and one or more independent variables (which are also called predictor or explanatory variables).

Model Formulation

SGDP=f(FDI)

SGDP=a + b(FDI) (i)

GDP=f(SGDP)

GDP=a+b(SGDP) (ii)

Where

FDI Foreign Direct Investment which is the explanatory variable.

GDP Gross Domestic Product which is the dependent variable.

SGDP Services Gross Domestic Product which is dependent in first in form of percentage and explanatory in second model in form of index.

a) Regression Coefficient (to be estimated) measures how much units of GDP would be changed with a unit change in FDI.

b) Intercepts the Y-axis.

Data Collection

The data set consists of FDI inflow (US$ mn) in different service sectors and percentage growth of GDP (in Service Sector) through FDI. The data set is secondary and covers the time period of 2000-2014 and collected the data from the Department of industrial policy & promotion, Economic Surveys, journals and RBI annual Publications.

Service Sector and GDP

Service sector has a major contribution to country GDP and it is increasing rapidly. Financial services has been raised from 3.5 in 2000-01 to 12.9 in 2013-14, whereas community social and personal services raises with slow pace as 4.6 to 5.6 from 2000 to 2014 but Communication, Hotels & Restaurant Services GDP has been decline as per table -1 below. Overall services GDP has grown 10.5 up to 2009-10 but later on declines.

Annual representation of overall GDP and services sector GDP has been shown below in figure 1 which shows service sector GDP always high as compare to overall GDP of Indian economy except in the year 2003-04.In year 2013-14 overall GDP is 4.7 whereas service sector GDP is 6.8

Table 1: India's services GDP annual growth at factor cost

Years	Trade Hotels & Restaurant Transport Storage Comm.	Financial Services	Community ,Social & Personal Services	Services GDP	GDP at Factor cost
2000-01	6.4	3.5	4.6	5.1	4.1
2001-02	8.6	6.2	4.0	6.3	5.4
2002-03	8.3	7.2	3.8	6.4	3.9
2003-04	11.2	5.3	5.3	7.3	8.0
2004-05	9.5	7.7	6.8	8.0	7.1
2005-06	12.0	12.6	7.1	10.9	9.5
2006-07	11.6	14.0	2.8	10.1	9.6
2007-08	10.9	12.0	6.9	10.3	9.3
2008-09	7.5	12.0	12.5	10.0	6.7
2009-10	10.4	9.7	11.7	10.5	8.6
2010-11	12.2	10.0	4.2	9.3	8.9
2011-12	4.3	11.3	4.9	6.6	6.7
2012-13	5.1	10.9	5.3	7.0	4.5
2013-14	3.0	12.9	5.6	6.8	4.7

(Source-Compiled from Economic Survey 2013-14) [15]

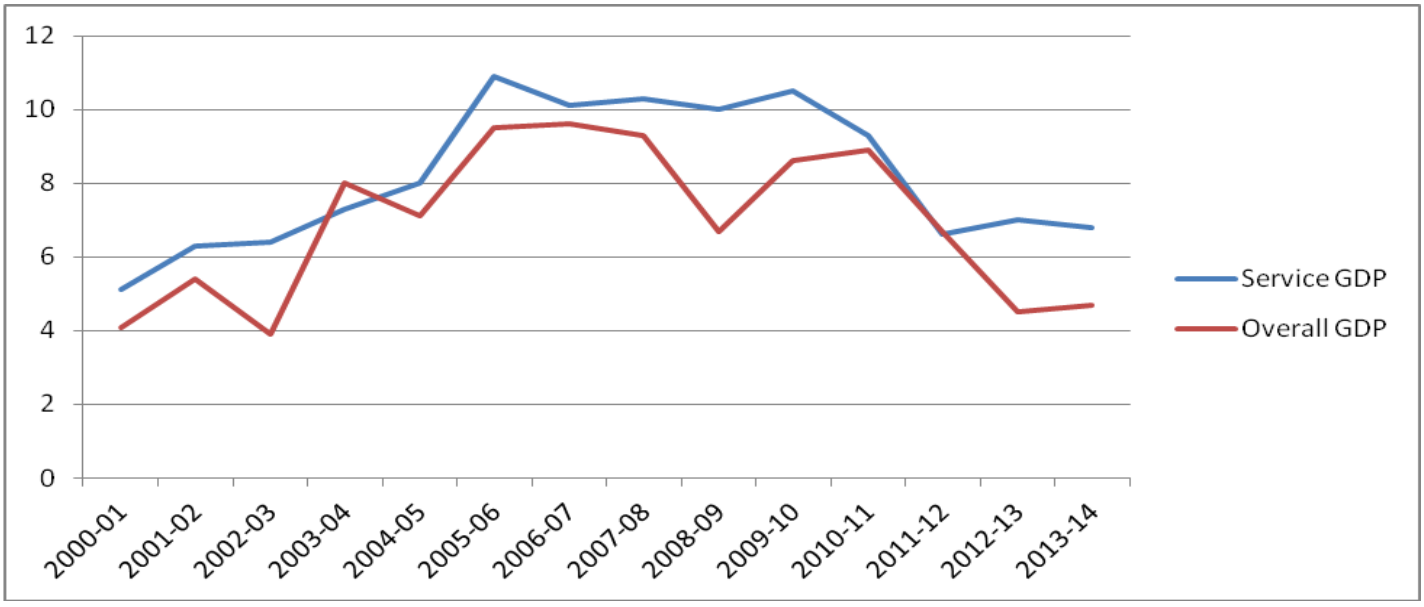


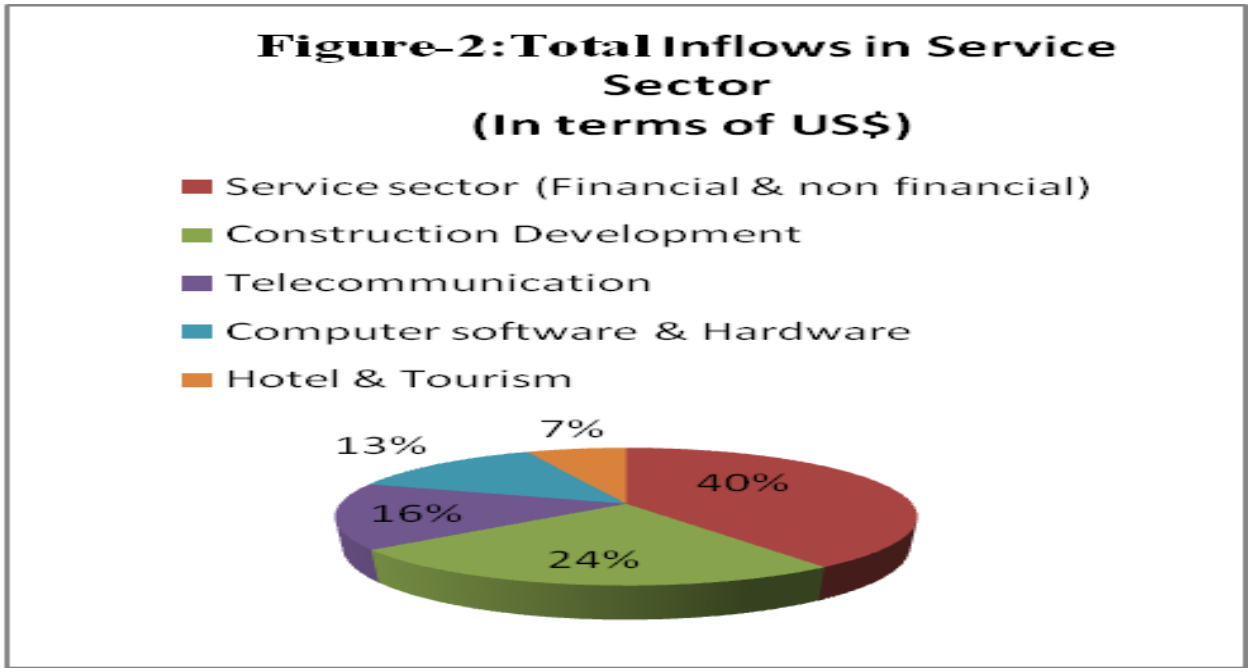
Fig. 1: Annual representation of service GDP as compare to Overall GDP

FDI in Service Sector

Table 2: Sector attracting highest FDI (US $ in Miliion)

Sectors	2011-12	2012-13	2013-14	Commulative:00-14	Total Inflow in Service Sector (%)
Services sector (Financial & non financial)	5216	4833	2225	39460	**18**
Construction Development	3141	1332	1226	23306	**11**
Telecommunication	1997	304	1307	14163	**7**
Computer software & Hardware	796	486	1126	12817	**6**
Hotel & Tourism	993	3259	486	7118	**3**
Total top five services	**12143**	**10214**	**6370**	**96864**	**45**

(Source- Department of industrial policy & promotion, GOI , Economic survey 2012-14)



Foreign direct investment in services sector is 45 percent out of overall FDI in Indian economy as per table 2 above. Service sector (Financial & non financial) is much contributed which is 18 percent but after 2011-12 foreign investment in service sector has been declined, where as in Telecommunication and IT sectors it has grown in year 2013-14.Chart representation in figure 2 has shown contribution of FDI in each service sector.

The estimated result of Correlation Analysis tells us the association between FDI inflows and growth of GDP (in Service Sector) is 0.758 and as per Table 1 of service sector GDP and GDP of economy is 0.855 which is positive and significant at 0.01 level of significant and it is shown in Table 4 and 5. The results of the regression model are estimated as SGDP =52.55+7.193E -5*FDI

Table 3: Financial year wise growth of GDP in service sector through FDI

Financial Year	FDI Inflow(US $ Million)	Growth of GDP in Service Sector(%)
2000-01	4029	51.83
2001-02	6130	53.02
2002-03	5035	53.18
2003-04	4322	53.04
2004-05	6051	53.06
2005-06	8961	53.87
2006-07	22826	52.71
2007-08	34843	53.93
2008-09	41873	54.72
2009-10	37745	55.14
2010-11	34847	56.37
2011-12	46553	54.90
2012-13	34298	56.30
2013-14	36396	57.00

(Source- Department of industrial policy & promotion, GOI ,Economic survey 2012-14)

Table 5 shows the goodness of fit test. Here Coefficient of determination (R square) is 0.574 and adjusted R-square is 0.539. It means that 53.9% of variations in the GDP (in service sector) by FDI and standard error of the estimate is 1.061.As per model second 70.8% of variation in economic GDP with the help of service sector GDP.

Table 6 shows the overall significance of the model. For this purpose Analysis of Variance F-statistics is used. The value of the F-statistics is 16.174 significant at 1% level of significance.

Table 7 shows expected value of percentage growth of GDP in service sector with variations as per regression model. Whereas, Table 8 the coefficients of the regression equation, their respective level of significance even at lower than 1% level of significance. Therefore the estimated results of the model demonstrate that there is a positive impact of the FDI on the GDP (in service sector).

Table 4: Correlations

		FDI inflow	Service Sector GDP
FDI inflow	Pearson Correlation	1	.758**
	Sig. (2-tailed)		.002
	N	14	14
Service Sector GDP	Pearson Correlation	.758**	1
	Sig. (2-tailed)	.002	
	N	14	14

Note:**Correlation is significant at the 0.01 level

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.758	.574	.539	1.061
2	.855	.730	.708	1.138

Table 6: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	18.195	1	18.195	16.174	.002
	Residual	13.499	12	1.125		
	Total	31.694	13			

Table 7: Expected value of % growth of GDP in service sector

Financial Year	Growth of Services GDP (Actual in %)	Growth of Services GDP(Expected in%)	Variation (%)
2000-01	51.83	52.84	1.94
2001-02	53.02	52.99	0.05
2002-03	53.18	52.91	0.50
2003-04	53.04	52.86	0.33
2004-05	53.06	52.99	0.13
2005-06	53.87	53.19	1.26
2006-07	52.71	54.19	2.80
2007-08	53.93	55.06	2.09
2008-09	54.72	55.56	1.53
2009-10	55.14	55.26	0.21
2010-11	56.37	55.06	2.32
2011-12	54.90	55.90	1.82
2012-13	56.30	55.02	2.27
2013-14	57.00	55.17	3.21

Table 8: Regression coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	52.555	.502		104.774	.000
	FDI inflow	7.193E-5	.000	.758	4.022	.002

Conclusion

The study concludes that FDI inflows have shown significant growth from 2000 to 2010 especially in service sector. Later on declines up to 2.67 % and reach near to 54.49 % but again raises 57 % in year 2013-14. Overall growth from 2000-14 is near to 6 %. Economic and financial crisis in the world have made a deepening impact on FDI flows and growth of Indian economy. Though FDI as a strategic component of investment is needed by India for its sustained economic growth. The current study showed a positive and significant impact of foreign capital inflows on Indian economy sectors. In future work, computational model will be designed to enhance the accuracy of our growth model using other economic variables like Gross output, Export and Labour productivity in service sector [16-20].

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