



## IMPACT OF THE SERVICE SECTOR AND COMPUTER SOFTWARE HARDWARE SECTOR OF FOREIGN DIRECT INVESTMENT INFLOWS ON GDP IN INDIA

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### RESEARCH ARTICLE



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### Abstract

This study is collected from secondary data and obtained from Department for Promotion of Industry and Internal Trade (DPIIT), newspapers, various journals and articles. The study sample of service sector inflows of FDI, computer software hardware sector inflows of FDI and GDP (at factor cost). The financial year data of the service sector inflows of FDI, computer software hardware sector inflows of FDI and GDP (at factor cost) from the years 2010-2011 to 2020-2021. This analysis used the linear regression result finding of concluded that FDI of the service sector inflows positively significant influences on the Gross domestic product (at factor cost). Then Computer software-hardware inflows had a positively significant impact on GDP growth in India. the determination of multiple linear regression results reveals the coefficient value of service sector inflows and computer software hardware inflows is showing a positive impact on GDP growth.

**Keywords:** *Industrial, FDI, GDP, Service sector, positive impact*

### Introduction

FDI plays a major role in the dynamic growth of the service sector. FDI in service sectors (Includes Financial, Banking, Insurance, Non-financial / Business, Outsourcing, R&D, Courier, Tec. Testing & analysis, commodity exchange other services). FDI in Computer Software and Hardware sector included (Includes Computer software industry, Computer Hardware & others). This sector enjoys the permission of 100% FDI under automatic route. The computer software and hardware sector accounted for 14 percent of India's total foreign direct inflows of Rs. 194291 crores in 2020-21. The computer software and hardware sector in India is rapidly expanding as a result of businesses rapid end-to-end digitisation. These sector have a major contribution to country's GDP and it is increasing rapidly. This has given a major boost to the Services Sector in India, which in its turn has made the sector contribute more to the India GDP.

### Review of literature

Debabrata Sutradhar(2014) In his studied FDI and service sector growth in India. This analysis fact that the rapid inflow of FDI in the service is a testimony that could play important role in the growth of different industries and sectors. The Manufacture sector in India could not reap the benefit of FDI may be because India lacks the necessary absorbing capacity. Though the role of FDI in India's economic growth cannot be ruled out, it failed to create growth in the manufacturing sector, where it was needed most. Moreover, a strong manufacturing sector was of utmost importance for the sustainable growth of the service sector. If the Indian economy wants to maintain sustainable service-led growth, then it must have a vibrant manufacturing sector, which was only possible by attracting more and more FDI in the manufacturing sector. Moreover, the rapid growth of new services in India may be attributed to the global FDI inflow in the services sector. So this kind of growth dictated by the developed countries will have long-term repercussions. But if the manufacturing sector is developed than the host economy was less susceptible to a global economic slowdown and more insulated to external disruptions.

Goonipooti Dinesh, Dinesh Kumar Choudhury, Tarun Khandelwal(2019) in their paper identified that the determinants of Services sector FDI and also inspected any long-run relationship between the variables used in the study. The techniques used in the study include Ordinary Least Squares, Johansen Co-integration. The empirical analysis concludes that Gross Domestic

Product, Bombay Stock Exchange, and Expenditure on Infrastructure have a positive relationship with the Services Sector Foreign Direct Investment. Exchange rate and Inflation have a negative relation with the Services Sector Foreign Direct Investment. From the policy perspective government should increase expenditure on infrastructure and take care of fluctuations in the exchange rate and inflation, thereby relaxing the restrictions on the inflows of FDI into the Services sector helps a service-led economy like India to boost its performance.

Arpan Mahapatra (2020) in this paper examined the role of FDI in various sectors like financial services, Telecommunication services, Information Technology services, Construction development etc. in the Indian economy and the contribution of each sector year-wise. The paper has discussed the effect of FDI inflows on the Indian economy from 2000 to 2014 based on secondary data. A statistical model was developed to investigate the relationship between FDI inflow and Gross Domestic Product in the service sector. This analysis has revealed that Foreign Direct Investment has a positive and significant impact on GDP.

**Objectives:** To analyses the Impact of the service sector and computer software hardware sector of FDI inflows on India's GDP growth

**Statement of the problem:** FDI comes and acts as a driving force for the growth and development of any country. Based on that, sector-specific incentives in FDI and its growth are essential for India. To solve these problems the researcher wants to study the topic "Impact of the service sector and computer software hardware sector of FDI inflows on GDP in India".

**Methodology:** This study is secondary data obtained from Department for Promotion of Industry and Internal Trade (DPIIT), newspapers, various journals and articles. The study sample of service sector inflows of FDI, computer software hardware sector inflows of FDI and GDP (at factor cost). The financial year data of the service sector inflows of FDI, computer software hardware sector inflows of FDI and GDP(at factor cost) from the years 2010-2011 to 2020-2021. The stepwise technique of the linear regression and multiple linear regression model helps ascertain the relative importance of the independent variables to explain variations in the dependent variable.

**Table No.1**  
**Linear regression of inflows of service sector and GDP**

a	b	t	sig	R square
7072138.147	93.657	4.574	.001	0.699

From regression model Table No.1, it is revealed that service sector inflows and GDP are statistically significant. The regression result confirms that FDI of service sector inflows is an essential factor for an increase in GDP in India. it is noted from the linear result that the coefficient between service sector inflows and GDP performance is 93.65 which means that a 1% increase in service sector inflows may cause a 93.65% increase in GDP(at factor cost). Hence the FDI of the service sector's inflow positively influences Gross domestic product(at factor cost). The coefficient value of determination R square value indicates that the linear model has 69% of GDP is being described by service sector inflows.

**Table No.2**  
**Linear regression of inflows of computer software and GDP**

a	b	t	sig	R square
9643283.923	22.273	2.307	.046	0.372

This simple linear model explains that computer software-hardware inflows has a positive coefficient value of 22.27 and therefore an increase in computer software hardware inflows of FDI would likely lead to an increase in total GDP. It clarifies that an increase in 1% in computer software hardware inflows would likely increase total GDP(at factor cost) by Rs.22.27 crores. Also, the significant value is  $0.046 < 0.05$ . Hence from this analysis, we conclude that computer software hardware inflows had a positively significant impact on GDP growth in India. the R square value is 0.372, which shows that the computer software hardware inflows has explained the GDP at 37.2 per cent.

**Table No.3**  
**Multiple linear regression results of computer software-hardware, the service sector of inflows and GDP**

Variables	b	t	sig	R square
Service sector	80.280	4.782	.001	0.837
Computer software sector	14.255	2.603	.031	

The R square value in the following multiple linear regression model is 0.837, showing that 83.7 per cent of the total variation in GDP in India can be explained by independent variables like service sector inflows and computer software hardware inflows. However, the value of the coefficient of service sector inflows and computer software hardware inflows showed that a 1 per cent significantly increase in contribution GDP growth brings 80.28% and 14.255percent increase per year in GDP growth in India and to both 0.001, 0.031 < 0.05 level. It reveals the coefficient value of service sector inflows and computer software hardware inflows is showing a positive impact on GDP growth.

**Limitation:** The study has only two sectors in FDI to GDP growth and the researcher has taken Eleven years for analysis.

### **Conclusion**

The linear regression result finding concluded that FDI of the service sector inflows positively significant influences of Gross domestic product (at factor cost). Then Computer software-hardware inflows had a positively significant impact on GDP growth in India. the determination of multiple linear regression results reveals the coefficient value of service sector inflows and computer software hardware inflows is showing a positive impact on GDP growth.

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### **References:**

1. Goonipooti, D., Choudhury, D. K., & Khandelwal, T. (2019). Analysis of foreign direct investment in Indian service sector, *SSRG International journal of economics and management studies*, 6(4), 1-6.
2. Mahapatra, A. (2020). Role and effect of FDI inflows on GDP of service sector, india: an empirical analysis, *Mukt Shabd Journal*, IX(V), 608-617.
3. Sutradhar, D. (2014). FDI and growth of service sector in India, *Artha journal of social science*, 13(4), 1-20.

Weblinks:

1. [www.dpiit.ac.in](http://www.dpiit.ac.in)
2. [www.rbi.ac.in](http://www.rbi.ac.in)

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