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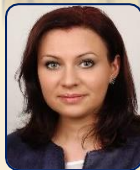


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## Research Article: 8

### Factors Influencing FDI in India's Service Sector



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#### Abstract

*This research article primarily investigates the factors that influence the inflow of Foreign Direct Investment (FDI) in Indian service sector from 1991 to 2021 by considering seven independent variables namely, skilled labour, inflow of FDI in manufacturing sector, exchange rate, external debt, rate of inflation, FDI openness and GDP growth. The results of regression analysis demonstrates that amount of FDI inflow in manufacturing sector, GDP growth rate and economic openness on FDI within service sector are the key drivers in Influencing the inflow of FDI in service sector.*

*Hence, this study suggests that the policymakers aiming to attract more FDI in the service sector should prioritize promoting manufacturing investments, improving overall growth rate and also focus in implementing transparent policies to instil confidence, among investors regarding India's economy.*

**Keywords:** Determinants, Foreign Direct Investment, India, Service Sector.

## 1. INTRODUCTION

The domain of FDI inflow in India has shifted over the years from the secondary sector (comprising of mainly manufacturing and mining sectors) to that of the tertiary sector and the major driving forces behind this paradigm shift are those of evolving growth patterns, policy adjustments, technological advancements and strategies employed by corporations in both service and industrial domains. As per the World Investment Report (2022) there has been a transformation in the composition of FDI from 1990, to 2021. During this period, the service sector experienced a notable increase in FDI share, rising from 49 per cent to 63 per cent.

Conversely, the manufacturing sector saw a decrease from 41 to 28 per cent, whereas the primary sector stayed mostly steady at around 7 per cent. This shift in FDI composition is mainly credited to the liberalization of service sectors, enabling higher inflow of FDI, especially in domains that were previously restricted or limited such as insurance, defence, finance, retail trading, e-commerce and telecommunications etc (WIR 2022). The shift in foreign direct investment (FDI) from the manufacturing to the service sector is now observed by both developed and emerging nations, signifying a noteworthy trend.

In line with the worldwide pattern, foreign direct investment (FDI) entering India has consistently transitioned from the

manufacturing sector to the service sector. (Banga, 2005, Doytch 2011).

As per WIR 2022, India ranks seventh among the top 20 host countries for FDI in 2021, with the services sector receiving the largest FDI inflows. India's policy framework also reflects the shift in foreign direct investment toward the country's service sector. In the post-liberalization era, the services sector attracts the highest FDI inflows in India. Sectors such as telecommunications, hospitality and tourism, trade, financial and non-financial services have attracted substantial FDI inflows. Given the increasing significance of India's services sector, this study seeks to identify the factors influencing FDI inflow into this specific sector.

## 2. LITERATURE REVIEW

There is abundant literature on FDI determinants at the national or regional level while there is a shortage of empirical research at the industrial or sectoral scale, especially within the service sector.

**Dunning's 1973** and 1988 work introduced the OLI paradigm, explaining FDI determinants with Ownership, Location and Internalization. Ownership identifies the investor; Location specifies the investment site and Internalization outlines the investment mode. Among these strategic advantages, the locational advantage highlighted by **Dunning's** OLI paradigm emphasizes the significance of factors such as a large and



expanding market, a high GDP, cost-effective production as well as political & economic stability as crucial factors influencing FDI (Dunning, 1993).

According to **Kolstad and Villanger (2008)** among political economy factors, democracy and institutional quality held greater significance for attracting service sector FDI compared to general investment risk or political stability. They stated that FDI in the service sector was primarily driven by a desire to access local markets and was not significantly influenced by host countries' trade openness. Additionally, the research demonstrated a strong correlation between foreign direct investment (FDI) into manufacturing and FDI into service providers such as Technology and IT Services, Research and Development Services, finance, Healthcare and Employee Benefits and transportation sectors etc. This implies that these services tended to grow in conjunction with their manufacturing counterparts, promoting vertical integration in production chains.

**Ramasamy and Yeung (2010)** underscored several key determinants of FDI in services that included previous inward FDI in manufacturing and services, the level of economic openness, GDP size, infrastructure quality, perceived risk level, GDP growth rate and the availability of a skilled labour force.

Similarly, the findings of **Riedl (2010)** revealed that the services sector adjusted more swiftly to its desired FDI stock level compared to manufacturing, mainly due to lower

installation costs. Additionally, the study indicated that FDI inflows in the service sector were primarily driven by a market-seeking motive, given that Services exhibit lower tradability compared to manufactured goods.

While the study of **Awan, Zaman and Khan (2010)** the study highlighted that per capita income, fixed capital formation, exchange rate, inflation rate as well as current account balance played pivotal roles as determinants of FDI inflows in services sector.

**Nageswara Rao, G. & Nageswara Rao, R. (2018)** concluded that a stable economic environment and consistent GDP growth have contributed to increased FDI inflows into India's service sector.

**Bansal, M. & Mukherjee, I. (2018)** explored that India's skilled and relatively cost-effective workforce has attracted FDI in IT and BPO services.

**Gupta, R. & Poddar, A. (2019)** emphasize the significance of India's large and growing consumer base as a primary driver of FDI inflow into the service sector.

**Kundu, R. (2020)** concluded that India's economic liberalization policies have played a vital role in attracting FDI in the service sector. India has secured the 7th rank among the top 20 host economies in terms of FDI inflow for 2021, with the largest share of FDI inflows being directed toward the service sector. (UNCTAD 2022).

**Kothari, Singhal and Hoang (2023)** identified political stability, a favourable regulatory environment and improved

infrastructure as critical factors influencing Foreign Direct Investment (FDI) in India, with political stability playing a significant role in attracting FDI.

Dhawan and Devi (2023) found a notable linear correlation between Foreign Direct Investment (FDI) inflows and GDP growth within India's service sector. With the service sector constituting 53.8 per cent of the nation's GDP, its substantial expansion is attributed to a skilled workforce, making India a preferred outsourcing destination for global enterprises. The dynamic service sector not only bolsters economic growth but also enhances domestic capital productivity and employment opportunities, emerging as a key driver of India's GDP.

### 3. RESEARCH GAP

FDI determinants are extensively studied at national or regional levels but sector-specific insights at the industrial or sectoral level are lacking. This research gap offers opportunities for a deeper understanding of sectoral level determinants. While there have been considerable FDI inflows, research on the factors influencing FDI in India's service sector is still limited. Existing studies provide some insights but a comprehensive understanding of these drivers is still lacking.

### 4. OBJECTIVE OF THE STUDY

This study seeks to pinpoint the factors influencing FDI in this sector and enhance our

understanding of the variables affecting FDI in the Indian services sector.

## 5. DATA AND METHODOLOGY

The study relies on secondary data spanning from 1991 to 2021. Data for GDP growth, inflation and external debt were sourced from the World Development Indicators. Exchange rate (USD/INR) data was obtained from the RBI and skilled labour availability was assessed using the data of gross enrolment in the tertiary education from the UNESCO Institute for Statistics. FDI data for both the manufacturing and service sectors were sourced from the DIPP. Some variables like service FDI and manufacturing FDI were transformed into logarithmic form to normalize unit effects and facilitate proportional interpretation. While Inflation, exchange rate, external debt, openness (SFDI/SGDP) and gross domestic product growth were not log-transformed as they were already expressed in percentage terms.

## 6. DATA ANALYSIS AND INTERPRETATION

The increasing significance of the service sector is prominently reflected in India's policy framework. In the post-reform era, government policies have exhibited a clear bias in favour of services. India has independently undertaken significant liberalization of

numerous service sectors to facilitate foreign direct investment (FDI). Moreover, the country has entered into various agreements that include Bilateral Investment Treaties, Double Taxation Avoidance Agreements, as well as complete agreements covering service sector investments, all aimed at attracting greater FDI into services. The rules governing FDI entry into the service sector are significantly more lenient than those in the manufacturing sector. Currently, FDI is allowed in nearly all service sectors, with only a few exceptions such as railway transportation, postal, telegraph and some professional services.

In our study of service sector FDI from 1991 to 2021, we have employed seven fundamental macroeconomic variables: FDI openness, manufacturing FDI, exchange rate, external debt, skilled labour, inflation and GDP growth. They offer meaningful insights into the factors influencing FDI inflows in a specific country, region or sector. To ensure the integrity of our analysis we omitted certain variables to avoid issues related to multicollinearity while others were excluded due to data unavailability. This selection process allowed us to focus on the most relevant and impactful determinants of FDI inflow into the service sector. A concise overview of the chosen determinants:

### **Market Size**

It has a major role in determining FDI in the services sector, especially for non-tradable services requiring a physical presence.

Proxy variables such as GDP or population size are commonly used to measure market size. Larger markets attract higher FDI because they offer more opportunities for multinational corporations to leverage their advantages, leading to a direct relationship between the size of the market and FDI inflows. In this study, annual GDP growth serves as the proxy for market size.

### **Inflation**

A country's favourable macroeconomic environment, characterized by high and stable growth rates tends to attract more FDI inflows. Inflation, a measure of economic stability, plays a pivotal role in this regard. Low inflation rates reduce uncertainty and encourage foreign investment while high inflation rates deter FDI by raising input costs and reducing profitability for investors. In India, inflation is assessed using various indices including the GDP deflator (annual percentage change) which reflects the overall price level of domestically produced goods and services. This study utilizes GDP deflator data as a proxy for measuring inflation.

### **External Debt**

A high level of external debt creates uncertainty regarding a host country's economic and business prospects, making it less appealing to foreign investors. Consequently, we hypothesize a negative relationship between FDI inflow and a host economy's external debt. In this study, we gauge external debt using external debt stocks



(expressed as a proportion of primary income and commodity exports (both goods and services)) as an approximate indicator for India.

### **Exchange Rate**

It signifies the value of a domestic currency relative to foreign currencies. When the value of the host nation's currency, it becomes less valuable compared to foreign currencies. This depreciation provides a "locational advantage" by reducing wage and production costs relative to foreign counterparts, boosting the host country's appeal for foreign investment. It enhances foreign investors' productive efficiency, lowers costs and increases profits. As a result, a depreciation of the recipient nation's currency raises the aggregate return on total investment for foreign investors, leading to increased FDI inflows. Conversely, if the host country's currency appreciates, it diminishes profitability for foreign investors, resulting in reduced FDI inflows. Therefore, depreciation tends to attract more FDI while appreciation tends to deter it.

### **FDI Openness**

FDI openness reflects an economy's receptiveness to foreign direct investment, represented as inflow of FDI/GDP. A higher ratio indicates greater openness, while a lower ratio suggests less openness. It essentially measures how integrated an economy or sector is within the global economic landscape.

### **FDI in Manufacturing Sector**

The reason for choosing this variable is the interdependence between the

manufacturing and service sectors. Certain services, like financial, non-financial, telecommunications and transportation (known as producer services), serve as crucial intermediary components in subsequent production processes. They effectively connect different stages of production. Hence, inflow of FDI in manufacturing sector is considered an important factor influencing inflow of FDI in the service sector.

### **Human Capital (HC)**

Skilled labour availability is a crucial factor in Foreign Direct Investment (FDI) decisions within service sector, given its labour-intensive and efficiency-seeking nature. Developing countries often offer cost advantages in labour, which underscores the importance of considering skilled labour as a determinant variable. Consequently, higher levels of skilled labour is anticipated to attract higher quantities of FDI

## **7. REGRESSION ANALYSIS**

Given that the data set considered is a time-series data, the required stationarity tests (Unit Root Tests) have been done which reveals that all the variables considered (both dependent variable and the independent variables) are stationary at 1st differentiation but not at level. So, we moved toward cointegrating regression (fully modified least squares).



Hence the mathematical equation is formulized as;

$$\text{LNSFDI}_t = \alpha + \beta_1 \text{LNMFDI}_t + \beta_2 \text{DBT}_t + \beta_3 \text{EXRT}_t + \beta_4 \text{OPEN}_t + \beta_5 \text{GDPGR}_t + \beta_6 \text{INF}_t + U_t$$

Where, **LNSFDI** (FDI inflow in service sector), **LNMFDI** (FDI inflow in manufacturing sector), **DBT** (External Debt), **EXRT** (Exchange Rate), **GDPGR** (Gross domestic product growth, percent) and **INF** (Inflation). The regression analysis in **Table 1** shows a positive association between the slope coefficients of GDP\_GR, HC, OPEN and MFDI with FDI in the service sector. P-values for these variables are less than 5 per cent, indicating statistical significance.

Table 1: Analysis Results				
Variable	Coefficient	Std. Error	t-statistics	Prob.
GDP_GR	0.031356	0.011256	2.785679	0.0108
HC	0.054173	0.009728	5.568602	0.0000
LNMFDI	0.347408	0.082905	4.190454	0.0004
OPEN	0.073063	0.008017	9.113751	0.0000
DBT	-0.003869	0.00099	-3.906976	0.0008
EXRT	-0.01163	0.005918	-1.965267	0.0621
INF	-0.017759	0.024033	-0.73893	0.4678
R-squared	0.975006		Adjusted R-squared	0.967054

LNMFDI shows a positive coefficient of 0.34, indicating that a one percent increase in manufacturing FDI results in a 0.3 percent growth in FDI within the service sector. This correlation is attributed to the division of production activities which increases the need for producer services, ultimately driving FDI inflows into the service sector. With a correlation of 0.03 for GDPGR, an increase in GDP growth of one percent is correlated with a 0.03 percent increase in FDI inflow within service sector. This finding emphasizes the link between growth and FDI inflows into the service sector. It suggests that countries with markets and promising growth prospects are more appealing to investors looking to invest in the service sector.

Moreover, the FDI openness coefficient for the service sector is 0.07 showing that FDI inflows into the service sector grow by 0.07 per cent for every one per cent increase in economy's openness. This connection may be explained by changes in FDI flow patterns and government-enacted policy changes. The skilled labour coefficient is 0.05, signifying that a one percent rise in skilled labour growth corresponds to a 0.05 percent increase in inflow of FDI within the service sector. This indicates that the presence of skilled labour positively influences FDI inflows in the service sector. Therefore, when there is a supply of workers it is connected to an upsurge, in FDI inflow to the service sector. The value of 0.967054 for adjusted R squared indicates that independent variables collectively account for 96.7 per cent of the fluctuations, in FDI within the service sector. This implies that the model holds capability. Moreover, the data fits well with this model as evidenced by its R squared value.

## CONCLUSION

This study explores determinants of FDI in India's service sector. The study shows that significant drivers of service sector FDI include manufacturing FDI, GDP growth and FDI openness while exchange rates and inflation lack substantial influence. These findings suggest that attracting investment in the manufacturing sector can indirectly boost inflow of FDI in service sector due to their favourable relationship.

The study confirms that inflow of FDI in the service sector seeks efficiency and that a higher supply of skilled labour increases FDI inflows in this sector. Furthermore, stable and transparent policies are crucial for foreign investor confidence as indicated by the positive correlation between service sector FDI, openness and GDP growth.

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