## CHAPTER – 1
### INTRODUCTORY BACKGROUND OF THE STUDY

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1.1 INTRODUCTION
The most outstanding developments during the last twenty years is the magnificent enlargement of Foreign Direct Investment (FDI) in the international financial background. This surprising growth of global FDI in 1990 around the world has made FDI a significant and crucial element of development strategy in both developed and developing nations and the policies have been designed in order to stimulate inward flows. In fact, FDI offers a gaining position to both the host and the home countries. Both the countries are directly interested in inviting FDI because they benefit a lot from such type of investment. The ‘home’ countries want to take the advantage of the vast markets opened by industrial growth. On the other hand the ‘host’ countries want to acquire technological and managerial skills and supplement domestic savings and foreign exchange. Moreover, the scarcity of all types of resources viz. financial, capital, entrepreneurship, technological know-how, skills and practices, access to the markets abroad in their economic development. The developing nations have accepted FDI as a sole visible panacea for all their scarcities. Further, the integration of global financial markets paved ways to this explosive growth of FDI around the globe.

1.2 BACKGROUND OF FOREIGN DIRECT INVESTMENT
The historical background of FDI in India can be traced back with the establishment of East India Company of Britain. British capital came to India during the colonial era of Britain in India. However, the researchers could not portray the complete history of FDI pouring in India due to lack of abundant and authentic data. Before independence major amount of FDI came from the British companies. British companies established their units in mining sector and particularly in those sectors that suit were their own economic and business interests. After Second World War, Japanese companies entered Indian market and enhanced their trade with India, yet United Kingdom (U.K) remained the most dominant investor in India.

Further, after Independence issues relating to foreign capital and operations of Multi National Corporations (MNCs) gained attention of the policy makers. Keeping in mind the national interests the policy makers designed the FDI policy which aims FDI as a medium for acquiring advanced technology and to mobilize foreign exchange resources. The first Prime Minister (Mr. Jawaharlal Nehru) of India considered foreign investment as “necessary” not only to supplement domestic capital but also to
secure scientific, technical and industrial knowledge and capital equipments. Afterwards political regimes there have been changes in the FDI policy as per economic and political regimes.

The industrial policy of 1965, allowed MNCs to venture through technical collaboration in India. However, the country faced two severe crisis in the form of foreign exchange and financial resource mobilization during the second five year plan (1956 -61). Therefore, the government adopted a liberal attitude by allowing more frequent equity participation to foreign enterprises and to accept equity capital in technical collaborations. The government also provides many incentives such as tax concessions, simplification of licensing procedures and de-reserving some industries such as drugs, aluminum, heavy electrical equipments, fertilizers, etc in order to further boost the FDI inflows in the country. This liberal attitude of government towards foreign capital lures investors from other advanced countries like USA, Japan and Germany, etc. But due to significant outflow of foreign reserves in the form of remittances of dividends, profits, royalties etc, the government had to adopt stringent foreign policy in 1970s. During this period the government adopted a selective and highly restrictive foreign policy as far as foreign capital, type of FDI and ownerships of foreign companies were concerned.

Government constituted Foreign Investment Board and enacted Foreign Exchange Regulation Act, 1973 in order to regulate the flow of foreign capital and FDI flow to India. The soaring oil prices resulted continuously reduced exports and During 1980s deterioration in Balance of Payment position forced the government to make necessary changes in the foreign investment policy. During this period, the government encouraged FDI by allowing MNCs to operate in India. This resulted in the partial liberalization of the Indian Economy. The government introduced reforms in the industrial sector, aimed at increasing competency, efficiency and growth in industry through a stable, pragmatic and non-discriminatory policy for FDI flow.

In the early nineties, Indian economy faced severe Balance of Payment (BOP) crisis and Exports began to experience serious difficulties. There was a marked increase in petroleum prices due to the gulf war. The crippling external debts were weakening the economy. India was left with that much amount of foreign exchange reserves which could finance its three weeks of imports. The out flowing of foreign currency which was deposited by the Indian NRI’s gave a further jolt to Indian economy. The overall
Balance of Payment reached at Rs. (4471) crores and Inflation reached at its highest level of 13 per cent. Foreign reserves of the country stood at Rs.11416 crores. The continued political uncertainty in the country during this period added further to worsen the situation. As a result, India’s credit rating fell in the international market for both short- term and long-term borrowing. All these developments put the economy at that time on the verge of default in respect of external payments liability. In that critical face of Indian economy, India introduced the macro – economic stabilization and structural adjustment program with the help of World Bank and International Monetary Fund (IMF). As a result of these reforms India opened its door to FDI inflows and adopted a more liberal foreign policy in order to restore the confidence of foreign investors. Further, under the new foreign investment policy, Government of India constituted Foreign Investment Promotion Board (FIPB) whose main function was to invite and facilitate foreign investment through single window system from the Prime Minister’s Office. The foreign equity Cap was raised to 51 per cent for the existing companies and the Government allowed the use of foreign brand names for domestically produced products which were restricted earlier. India also became the member of Multilateral Investment Guarantee Agency (MIGA) for protection of foreign investments. Government lifted restrictions on the operations of MNCs by revising the Foreign Exchange Regulation Act (FERA), 1973. New industrial sectors such as mining, banking, telecommunications, highway construction and management were opened to foreign investors as well as to private sector.

1.3 THEORIES OF FOREIGN DIRECT INVESTMENT

The theories relating to the determinants of FDI can be grouped in two parts. According to the assumption made regarding the market structure: first classification assuming the perfect market and second classification of theories assuming the imperfect market.

1.3.1 Theories Assuming Perfect Markets

Differential Rates of Return

In this approach, it is argued that Foreign Direct Investment is the result of capital flowing from countries with low rates of return to countries with high rates of return. This proposition follows from the idea in evaluating their investment decisions. Firms
equate expected marginal returns which are higher abroad than at home, the marginal cost of capital is the same for both types of investment and there is an incentive to invest abroad rather than at home. This theory gained wide acceptance in the late 1950s when United States (U.S.) Foreign Direct Investment in manufacturing sector in Europe increased sharply. At that time, after tax rates of return of U.S. subsidiaries in manufacturing sector were consistently above the rate of return on U.S. domestic manufacturing. However this relationship proved to be unstable. During the 1960s, U.S. Foreign Direct Investment in Europe continued to rise, although rates of return for U.S. subsidiaries in Europe were below the rates of return on domestic manufacturing (Hatbauer 1975). There are certain aspects of Foreign Direct Investment which cannot be explained by this theory. Since this theory postulates that capital flows from countries with low rates of return to countries with high rates of return, it assumes implicitly that there is a single rate of return across activities within a country. Therefore this theory is not consistent with some countries experiencing simultaneously inflows and outflows of Foreign Direct Investment. Similarly it cannot account for the uneven distribution of Foreign Direct Investment among different types of industries. These considerations as well as the weak empirical results suggest that the differential rate of return theory does not satisfactorily explain the determinants of Foreign Direct Investment flows.

**Portfolio Diversification**

Since expected returns do not appear to provide an adequate explanation of Foreign Direct Investment. A next attention is focused on the role of risk. In choosing among the various available projects, a firm is presumably guided by both expected returns and the possibility of reducing risk. Since the returns of activities in different countries are likely to have less than the perfect correlation. A firm reduces its overall risk by undertaking projects in more than one country. Foreign Direct Investment can be viewed as international portfolio diversification at the corporate level. Various attempts to test this theory have been made. One approach is to explain the share of Foreign Direct Investment going to a group of countries by relating it to the average return on those investments and to the risk associated with those investments as measured by the variance of average returns. A variant of this procedure was to estimate first the optimal geographical distribution of assets of multinational firms based on portfolio considerations and then to assume that firms gradually adjust their flow of Foreign Direct Investment to obtain optimal distribution. Another line of
inquiry is to ascertain whether large firms with more extensive foreign activities show smaller fluctuations in global profits and sales.

The portfolio diversification theory is an improvement over the differential rates of return theory in the sense that, by including the risk factor, it can account for countries experiencing simultaneously inflows and outflows of Foreign Direct Investment. However, it cannot account for the observed differences in the propensities of different industries to invest abroad. In other words, it does not explain why Foreign Direct Investment is more concentrated in some industries than in others. A more fundamental criticism of this theory has been the argument that in a perfect capital market, there is no reason to have firms diversifying activities just to reduce the risk for their stockholders. If individual investors want reduced risk, they can obtain it directly by diversifying their individual portfolios. This criticism implies that for diversification motive to have any explanatory power for Foreign Direct Investment, the assumption of perfect capital markets must be dropped.

1.3.2 Theories Based on Imperfect Markets

The theories outlined in the previous section did not make any specific assumption about market imperfections or market failures. Hymer (1976) was perhaps the first analyst to point out that the structure of the markets and the specific characteristic of firms should play key role in explaining Foreign Direct Investment. The role of these factors has been analyzed in both static context, which focuses on issues associated with industrial organization and the internalization of decisions and in dynamic framework which highlights oligopolistic rivalry and product cycle considerations.

**Industrial Organization**

Hymer (1976) has argued that the very existence of multinational firms rested on market imperfections. Two types of market imperfection were of particular importance: structural imperfections and transaction-cost imperfections. Structural imperfections which held the multinational firm to increase its market power, arose from economies of scale, advantages of knowledge, distribution networks, product diversification and credit advantages. Transaction costs, on the other hand, made it profitable for the multinational firm to substitute an internal "market" for external transactions.

**Internalization**

This hypothesis explains the existence of Foreign Direct Investment as the result of firms replacing market transactions with internal transactions. Thus, it is seen as a
way of avoiding imperfections in the markets for intermediate inputs (Buckley & Casson 1976). Modern businesses conduct many activities in addition to the routine production of goods and services. All these activities including marketing, research and development and training of labor are interdependent and are related through flows of intermediate products mostly in the form of knowledge and expertise. However market imperfections make it difficult to price some types of intermediate products. For example it is often hard to design and enforce contractual arrangements that prevent someone who has purchased or leased a technology (such as computer software program) from passing it on to others without the knowledge of the original producer. This problem provides an incentive to bypass the market and keep the use of the technology within the firm. This produces an incentive for the creation of intra-firm markets. The internalization theory of Foreign Direct Investment is intimately related to the theory of the firm. The question of why firms exist was first raised by Coase (1937). He argued that the firm’s internal procedures with certain transaction costs are better suited than the market to organize transactions. These transaction costs arose when strategic or opportunistic behavior is present among agents to an exchange, the commodities or services traded are ambiguously defined and contractual obligations extend in time.

When these three conditions are present, enforcement and monitoring costs may become prohibitive. Under these circumstances, the firm opts to internalize those transactions.

The main feature of this approach is treating markets on the one hand, and firms on the other, as alternative modes of organizing production. It is the internalization of markets across national boundaries that gives rise to the international enterprise and thus to Foreign Direct Investment. This process continues until the benefits from further internalization are outweighed by the costs. As indicated by Agarwal (1980), the benefits include avoidance of time lags, bargaining and buyer uncertainty, minimization of the impact of government intervention through transfer pricing and the ability to use discriminatory pricing. The costs of internalization include administrative and communication expenses. The difficulties in formulating appropriate tests for the internalization theory were examined further by Buckley(1976). He argued that the general theory couldn't be tested directly, rather it could he sharpened to obtain relevant testable implications. Since much of the
argument rests on the incidence of costs in external and internal markets, the specification and measurement of those costs is crucial for any test.

All Eclectic Approach

Dunning (1977, 1979, and 1988) has developed an eclectic approach by integrating three strands of literature on foreign direct investment: the industrial organization theory, the internalization theory and the location theory. The foreign direct investment to take place, the firm must have ownership and internalization advantages, and a foreign country must have locational advantages over the firm's home country. Dunning further divides these advantages into three groups. They are: (a) Ownership advantages, (b) Location advantages, and (c) Internalization advantages.

These three advantages constitute the famous OLI model of Dunning. Here, ownership advantages consist of:

- Benefits the firm can obtain from its Size, monopoly power and better resource capacity and usages; and
- Benefits derived from the enterprise's ability of operation and management (such as know-how, organizational and marketing systems). There are two types of location advantages. The first type accrues from attractions special location advantages provided by the host country, such as cheaper labor forces market for the product and the government's preferential policies. The second one is generated from the limitations of the home. The investors are forced to decide on direct investment abroad because they suffer from disadvantages in their own countries such as a small market for their products, lack of raw materials and higher production costs.

Internalization advantages refer to the benefits that the firm can secure by using its ownership advantages internally, between the parent company and its subsidiaries. It decides the firm's selection of FDI location or destination. It implies that countries with low labor costs and/or natural resources tend to have an above average inward investment because of their locational attractions, while rich industrialized countries have an above average outward direct investment, because their factor endowments favor mobile ownership advantages (Dunning 1988).

The eclectic approach postulates that all foreign direct investment can be explained by reference to the above conditions. Dunning used this approach to suggest reasons for differences in the industrial pattern of the outward direct investment of five developed
countries and to evaluate the significance of ownership and location variables in explaining the industrial pattern and geographical distribution of the sales of U.S. affiliates in 14 manufacturing industries in seven countries.

Dunning claims that all forms of international production by all countries can be explained by his eclectic paradigm. However, a single theory is unable to explain all the characteristics of FDI. For example, this model can explain neither the case of some developed countries that are heavily involved in both inward and outward FDI and the fact that it is the developed countries not the developing countries which have the largest share of inward FDI. In addition, the macro-economic effects of FDI are largely ignored and there is no thorough integration of some macro-economic issues and the theory of FDI. These macro-economic issues or effects may cover the political complexities in the MMEs' activities. moreover, it is arguable that if ownership advantages play a necessary role in determine the firm's investment, internalization explains why firms exist in the absence of such advantages (Buckley and Casson 1976) and firms in some developing countries without ownership advantages actively accept FDI.

**Product Cycle**

This hypothesis, developed by Vernon (1966), was mainly intended to explain the expansion of U.S. multinational firms after World War II.

Innovation can be stimulated by the need to respond to more intense competition or to the perception of a new profit opportunity. The new product is developed and produced locally both because it is designed to satisfy the local demand and because it will facilitates the efficient coordination between research, development and production units. Once the first production unit is established in the home market, any demand that may create in a foreign market would ordinarily be satisfied by exports. However, rival producers eventually emerge in foreign markets, since they can produce more cheaply (owing to lower distribution costs) than the original innovator. At this stage, the innovator is compelled to examine the possibility of setting up a production unit in the foreign location. If the conditions are considered favorable, the innovator engages in foreign direct investment. Finally, when the product is standardized and its production technique is no longer an exclusive possession of the innovator, he may decide to invest in developing countries to obtain some cost advantages, such as cheaper labor. The explanatory power of the product-cycle
hypothesis has declined considerably as a result of changes in the international environment.

**Oligopolistic Reaction**

Knickerbocker (1973) states that in an oligopolistic environment, foreign direct investment by one firm would trigger similar investments by other leading firms in the industry to maintain their market shares. Using data from a large number of U.S. multinational firms, he calculated an entry concentration index for each industry which showed the extent to which subsidiaries’ entry dates were bunched in time. As indicated in Hafbauer (1975), the entry concentration index positively correlated with the U.S. industry concentration index. It implies that an increased industrial concentration caused increased reaction by competitors to reduce the possibility of one rival gaining a significant cost or marketing advantage over the others. The entry concentration index was also positively correlated with market size, implying that the reaction was stronger, the larger the market at stake. The entry concentration index was negatively correlated with the product diversity of the multinational firms and with their expenditure on research and development. This suggested that the reaction of firms was less intense if they had a variety of investment opportunities, or if their relative positions depended on technological considerations.

**1.3.3. Other Theories of Foreign Direct Investment**

**Currency Area**

Investors are less concerned with this exchange risk when a firm owns the income stream from a strong currency country than when owned by a firm from a weak currency country. Alternatively, investors might take into account exchange risk for a strong currency firm only if substantial portions of its earnings were firm foreign sources. For any of these reasons, an income stream is capitalized at a higher rate by the market (has a higher price) when a strong currency firm than when owned by a weak currency firm owns it.

**Diversification with Barriers to international Capital Flows**

As noted earlier, there is no reason for firms to carry out diversification activities for their stockholders in perfect capital markets, since any desired diversification can be obtained directly by individual investors. Agmon and Lessard (1977) have argued that for international diversification to be carried out through corporations, two conditions must be satisfied. Firstly, barriers or costs to portfolio flows must exist that
are greater than those to foreign direct investment. Secondly, investors must recognize that multinational firms provide a diversification opportunity that is otherwise not available. They postulate a simple model in which the rate of return of a security is a function both of a domestic market factor and of a rest-of-the-world market factor by assuming the first condition. They tested the proposition that securities prices of firms with relatively large international operations were more closely related to the rest-of-the-world market factor and less to the domestic market factors than shares of firms that were essentially domestic. They obtained favorable results for a sample of data applying to U.S. firms. However, as noted by Agmon and Lessard (1981), these results were consistent with the second condition mentioned above but did not support a fully developed theoretical model.

**The Kojima Hypothesis**

The Kojima Hypothesis (1973, 1975, 1985) was concerned with explaining the FDI outflows from Japan. He mentions that the inability of the domestic firms in Japan compelled them to invest overseas. These firms were competing away by the more efficient local firm in the home country as a result of which the weaker firms find their way in some overseas countries. However, this hypothesis could not explain the expansion of business activities by the domestically competent firm overseas. The above discussion reveals the fact that there are various theories and hypotheses, which emphasize different microeconomic and macroeconomic factors that are likely to affect the flow of FDI. While most of those have some empirical support, no single hypothesis is sufficiently supported to cause the others to be rejected. Theories derived from industrial organization approach have probably gained the widest acceptance. They seem to provide a better explanation for cross-country, intra-industry investment and for the uneven concentration of foreign direct investment across industries than do alternative models. However, in a broader prospective, the OLI paradigm of Dunning has been widely accepted by those researchers who try to explain the determinants of the FDI flows. The present study tries to develop over the OLI paradigm and introduce some firm specific variable like LPR in the theoretical framework for the determinants of FDI.
1.4 INTERNATIONAL SCENARIO OF FOREIGN DIRECT INVESTMENT

Foreign Direct Investment is one of the most important indicators to evaluate the economic growth of any country. In this section, the main emphasis is given to growth and trends of foreign direct investment in world, regional wise FDI during the study period and inters comparison of FDI between the countries.

Table 1.1 Growth rate of Global GDP Trade, Employment and FDI
(Figures in per cent)

<table>
<thead>
<tr>
<th>Variable/ Year</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>4.1</td>
<td>2.9</td>
<td>2.4</td>
<td>2.5</td>
<td>2.6</td>
</tr>
<tr>
<td>Trade</td>
<td>12.6</td>
<td>6.8</td>
<td>2.8</td>
<td>3.5</td>
<td>3.4</td>
</tr>
<tr>
<td>GFCF</td>
<td>5.7</td>
<td>5.5</td>
<td>3.9</td>
<td>3.2</td>
<td>2.9</td>
</tr>
<tr>
<td>Employment</td>
<td>1.2</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
<td>1.3</td>
</tr>
<tr>
<td>FDI</td>
<td>11.9</td>
<td>17.7</td>
<td>-10.3</td>
<td>4.6</td>
<td>-16.3</td>
</tr>
</tbody>
</table>


Table 1.1 represent the growth rate of global Gross Domestic Product, Trade, Employment and Foreign Direct Investment from 2010 to 2014. It can be clearly observed that growth rate of GDP was highest in 2010 and declined from 4.1 per cent to 2.9 per cent in next year. GDP remained constant in later years. Similar kind of pattern was observed in trade and Gross Fixed Capital Formation (GFCF) which was stood at 3.4 and 2.9 per cent in 2014. Growth in world Employment ranged between 1.2 per cent to 1.4 per cent. As far as FDI was concern, the growth rate of world FDI was 11.9 per cent in 2010 and then increase to 17.7 per cent in the very next year. Due to Euro crisis, a negative figure of (10.3) per cent was recorded in 2012. In 2013, there was a positive trend of growth for world FDI but at the end of 2014, again world FDI was shown in negative figure i.e. (16.3) per cent.
Figure-1.1 World Foreign Direct Investment from 1991-2014
(Figures are in millions US$)

Figure 1.1 depicts the trend of worldwide foreign direct investment from 1991 to 2014. The total world FDI was 154 billion US $ at the end of 1991 which was increased to 1228.28 billion US $ at the end of 2014 with a CAGR of 9.45 per cent. There was a upward movement in the world FDI trend till 2000 and FDI was at its peak. In the later years there were a declining trend in worldwide FDI in next three year and FDI was 551.92 US$ billion. After 2003, FDI again showed the rising movement and it was highest in 2007 stood at 1871 US$ billion. Due to global financial crisis emerged during 2007, FDI was again contracted and there was mix trend till 2014. At the end of 2014, worldwide FDI was 1228.28 US$ billion.
Table 1.2 Region wise FDI inflow and outflow from 2012 to 2014
(Figures in US$ Billion)

<table>
<thead>
<tr>
<th>Region</th>
<th>FDI inflows</th>
<th>FDI Outflow</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2012</td>
<td>2013</td>
</tr>
<tr>
<td>World</td>
<td>1403</td>
<td>1467</td>
</tr>
<tr>
<td>Developed Economies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Europe</td>
<td>401</td>
<td>326</td>
</tr>
<tr>
<td>North America</td>
<td>209</td>
<td>301</td>
</tr>
<tr>
<td>Developing Economies</td>
<td>639</td>
<td>671</td>
</tr>
<tr>
<td>Africa</td>
<td>56</td>
<td>54</td>
</tr>
<tr>
<td>Asia</td>
<td>401</td>
<td>428</td>
</tr>
<tr>
<td>East and South East Africa</td>
<td>321</td>
<td>348</td>
</tr>
<tr>
<td>South Asia</td>
<td>32</td>
<td>36</td>
</tr>
<tr>
<td>West Asia</td>
<td>48</td>
<td>45</td>
</tr>
<tr>
<td>Latin America and Caribbean</td>
<td>178</td>
<td>186</td>
</tr>
<tr>
<td>Oceania</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Transition Economies</td>
<td>85</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Compiled from various UNCTAD Report.

From the table 1.2, it can be observed that developing-economy inflows reached $681 billion. This group now accounts for 55 per cent of global FDI inflows. Five of the top 10 FDI hosts are now developing economies. However, the increase in developing-country inflows is primarily a developing Asia story. FDI inflows to that region grew by 9 per cent to almost $465 billion, more than two thirds of the total for developing economies. This rise was visible in all sub regions except West Asia, where inflows declined for the sixth consecutive year, in part because of a further deterioration in the regional security situation. FDI flows to Africa remained unchanged at $54 billion, as the drop of flows to North Africa was offset by a rise in Sub-Saharan Africa. Inflows to Latin America and the Caribbean saw a 14 per cent decline to $159 billion, after four consecutive increases. The Russian Federation dropped from 5th to 16th place as a recipient country, largely accounting for the 52 per cent decline in transition-economy FDI inflows to $48 billion. Despite a revival of cross-border merger and acquisitions (M&As), FDI flows to developed economies declined by 28 per cent to $499 billion. FDI inflows to the United States fell to $92 billion, significantly affected by a single large-scale divestment, without which the level of investment would have remained stable. FDI flows to Europe fell by 11 per cent to $289 billion, one third of their 2007 peak.
Figure 1.2 FDI Inflows of Developed, Developing and Transition Economies from 2012 to 2014
(Figures in US$ Billion)

Source: Compiled from various UNCTAD Report.

Figure 1.3 FDI Outflows of Developed, Developing and Transition Economies from 2012 to 2014
(Figures in US$ Billion)

Source: Compiled from various UNCTAD Report.
Table 1.3 International comparison of FDI Inflows  
(Figures in millions US$)

<table>
<thead>
<tr>
<th>Countries/ Years</th>
<th>1991</th>
<th>2001</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>75.0</td>
<td>5 477.6</td>
<td>34 416.8</td>
</tr>
<tr>
<td></td>
<td>(0.04)</td>
<td>(0.8)</td>
<td>(2.80)</td>
</tr>
<tr>
<td>USA</td>
<td>22 799.0</td>
<td>159 461.0</td>
<td>92 397.0</td>
</tr>
<tr>
<td></td>
<td>(14.79)</td>
<td>(23.31)</td>
<td>(7.52)</td>
</tr>
<tr>
<td>China</td>
<td>4 366.3</td>
<td>46 877.6</td>
<td>128 500.0</td>
</tr>
<tr>
<td></td>
<td>(2.83)</td>
<td>(6.85)</td>
<td>(10.46)</td>
</tr>
<tr>
<td>UK</td>
<td>14 846.2</td>
<td>36 934.9</td>
<td>72 241.0</td>
</tr>
<tr>
<td></td>
<td>(9.63)</td>
<td>(5.39)</td>
<td>(5.88)</td>
</tr>
<tr>
<td>Japan</td>
<td>1 284.3</td>
<td>6 241.6</td>
<td>2 089.8</td>
</tr>
<tr>
<td></td>
<td>(0.83)</td>
<td>(0.91)</td>
<td>(0.17)</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>1 020.9</td>
<td>29 060.7</td>
<td>103 254.2</td>
</tr>
<tr>
<td></td>
<td>(0.66)</td>
<td>(4.2)</td>
<td>(8.4)</td>
</tr>
<tr>
<td>Singapore</td>
<td>4 887.1</td>
<td>17 006.9</td>
<td>67 523.0</td>
</tr>
<tr>
<td></td>
<td>(3.1)</td>
<td>(2.4)</td>
<td>(5.49)</td>
</tr>
<tr>
<td>World</td>
<td>154 138.3</td>
<td>684 070.9</td>
<td>1 228 262.5</td>
</tr>
</tbody>
</table>

Source: Compiled from various UNCTAD Report.  
Note: Figure in bracket represent the per cent share of the country in total world FDI.

Table 1.3 shows the international comparison of FDI in various counties belongs to develop, developing and emerging economies. The time frames is categorized in three segment which were 1991, 2001 and 2014 and counties were selected as India, USA, China, UK, Japan, Hong Kong and Singapore for comparison. It can be clearly observed from the table that in 1991 USA hold the 14.79 per cent of total world FDI followed by UK, Singapore and China. At the end of 2001, the position of USA was very strong as the economy accounted for 23.31 per cent share in total FDI and holds the first position. In 2014, the scenario was completely changed and dominance of USA was finished and it only consists of 7.52 per cent. According to latest statistics of UNCTAD, the China secured the first position as the share of the economy was 10.46 per cent followed by Hong Kong (8.4). As far as India is concern, The share of India was 0.04 per cent in 1991 and was increased to 0.8 per cent in 2001. At the end of 2014, share of Indian economy was improved and stood at 2.80 per cent of the
world FDI. Figure 1.1 shows the graphical representation of FDI of the various countries from 1991 to 2014.

**Figure-1.4 Trends of FDI of various Countries form 1991- 2014**

(Figures in millions US$)

Source: Compiled from various UNCTAD Report.

**Table-1.4 Country specific FDI Inflows In 2014**

(figures in billion US$)

<table>
<thead>
<tr>
<th>Country</th>
<th>FDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>129</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>103</td>
</tr>
<tr>
<td>US</td>
<td>92</td>
</tr>
<tr>
<td>UK</td>
<td>72</td>
</tr>
<tr>
<td>Singapore</td>
<td>68</td>
</tr>
<tr>
<td>Brazil</td>
<td>62</td>
</tr>
<tr>
<td>Canada</td>
<td>54</td>
</tr>
<tr>
<td>Australia</td>
<td>52</td>
</tr>
<tr>
<td>India</td>
<td>34</td>
</tr>
<tr>
<td>Netherlands</td>
<td>30</td>
</tr>
</tbody>
</table>

Source: Compiled from various UNCTAD Report.
Table 1.4 shows the country specific analysis of inflow of Foreign Direct Investment at the end of 2014. According to the latest report of UNCTAD, China was the most attractive nation for the foreign investors to invest their money. The total FDI was 129 billion US$ for China followed by Hong Kong where the FDI inflow was 103 billion US$. The United State secured the third number position to attract the FDI where 92 billion US$ was coming from foreign investors in the form of FDI. The US was followed by United Kingdom, Singapore, Brazil, Canada, Australia where the FDI inflow was stood at 72, 68, 62, 54 and 52 billion US$ respectively. The India ranked at ninth position where the total FDI inflow was 34 billion US$ followed by Netherland.

**Figure-1.5 Comparison of FDI Inflows among major countries in 2014**

(figures in billion US$)

![Graph showing FDI inflows among major countries in 2014](image)

*Source: Compiled from various UNCTAD Report.*

1.5 SERVICE SECTOR IN INDIA

Development of a vibrant and competitive Services sector is a key characteristic of modern economies. In the developed world, services frequently account for two-thirds or three-quarters of all economic activity. The transition from agriculture through manufacturing to a services economy has been the hallmark of economic development for many countries. Thus typically the process of economic development is marked by three distinct phases an initial phase of the dominance of agriculture, and intermediate phase dominated by industry and a final phase dominated by services. The timing of
different phases of structural changes and the duration of such changes have, however, been different across different countries. The Services Sector constitutes a large part of the Indian economy both in terms of employment potential and its contribution to national income. Services sector is the lifeline for the socio-economic growth of a country. It is today the largest and fastest growing sector globally contributing more to the global output and employing more people than any other sector. In alignment with global trend, the Indian Services sector has witnessed a major boom and is one of the major contributors to both employment and national income in recent time. Services sector in India today accounts for more than half of India’s GDP. Since independence, there has been a marked acceleration in Services sector growth in India. This paper provides an overview of the Indian Services sector. It shows that this sector is the fastest growing sector in India, contributing significantly to GDP and GDP growth rate.

Table 1.5: Share of Agriculture, Industry and Services in GDP of India since Liberalization

<table>
<thead>
<tr>
<th>Year</th>
<th>Agriculture</th>
<th>Industry</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991-92</td>
<td>28.54</td>
<td>27.33</td>
<td>43.91</td>
</tr>
<tr>
<td>1992-93</td>
<td>28.89</td>
<td>26.77</td>
<td>44.05</td>
</tr>
<tr>
<td>1993-94</td>
<td>28.24</td>
<td>26.73</td>
<td>44.76</td>
</tr>
<tr>
<td>1994-95</td>
<td>27.8</td>
<td>27.42</td>
<td>44.52</td>
</tr>
<tr>
<td>1995-96</td>
<td>25.73</td>
<td>28.44</td>
<td>45.69</td>
</tr>
<tr>
<td>1996-97</td>
<td>26.19</td>
<td>28.03</td>
<td>45.51</td>
</tr>
<tr>
<td>1997-98</td>
<td>24.47</td>
<td>27.95</td>
<td>47.53</td>
</tr>
<tr>
<td>1999-00</td>
<td>23.18</td>
<td>26.77</td>
<td>50.05</td>
</tr>
<tr>
<td>2000-01</td>
<td>22.26</td>
<td>27.25</td>
<td>50.49</td>
</tr>
<tr>
<td>2001-02</td>
<td>22.39</td>
<td>26.54</td>
<td>51.07</td>
</tr>
<tr>
<td>2002-03</td>
<td>20.13</td>
<td>27.39</td>
<td>52.48</td>
</tr>
<tr>
<td>2003-04</td>
<td>20.33</td>
<td>27.22</td>
<td>52.44</td>
</tr>
<tr>
<td>2004-05</td>
<td>19.03</td>
<td>27.93</td>
<td>53.05</td>
</tr>
<tr>
<td>2005-06</td>
<td>18.27</td>
<td>27.99</td>
<td>53.74</td>
</tr>
<tr>
<td>2006-07</td>
<td>17.37</td>
<td>28.65</td>
<td>53.98</td>
</tr>
<tr>
<td>2007-08</td>
<td>16.81</td>
<td>28.74</td>
<td>54.45</td>
</tr>
<tr>
<td>2008-09</td>
<td>15.77</td>
<td>28.13</td>
<td>56.11</td>
</tr>
<tr>
<td>2009-10</td>
<td>14.64</td>
<td>28.27</td>
<td>57.09</td>
</tr>
<tr>
<td>2011-12</td>
<td>14.45</td>
<td>28.23</td>
<td>57.32</td>
</tr>
<tr>
<td>2012-13</td>
<td>14.1</td>
<td>27.51</td>
<td>58.39</td>
</tr>
<tr>
<td>2013-14</td>
<td>13.69</td>
<td>26.75</td>
<td>59.57</td>
</tr>
</tbody>
</table>

Source: Various planning Commission Reports.
This table 1.5 represent the share of Agriculture & Allied activities, Industry and Service Sector in GDP of India from 1991-92 to 2013-14. The services sector, with around 60 per cent contribution to the Gross Domestic Product (GDP) in 2013-14, has made rapid strides in the past decade and a half to emerge as the largest and one of the fastest-growing sectors of the economy. The services sector is not only the dominant sector in India’s GDP, but has also attracted significant foreign investment flows, contributed significantly to exports as well as provided large-scale employment. India’s services sector covers a wide variety of activities such as trade, hotel and restaurants, transport, storage and communication, financing, insurance, real estate, business services, community, social and personal services, and services associated with construction. The agricultural activities, with around 14 per cent contribution in GDP in 2013-14, declined from 28.54 per cent at the time of liberalization. Industry has a constant share during the study period and stood at 26.75 per cent contribution in GDP at the end of 2013-14.

**Figure- 1.6 Trends of Share of major sector in GDP in India**

*(Figures are in per cent)*

![Graph showing trends of major sectors in GDP](image)

*Source: Various planning Commission Reports.*

In the market size, the services sector contributed US$ 783 billion to the 2013-14 GDP (at constant prices) growing at CAGR of 9 per cent, faster than the overall GDP CAGR of 6.2 per cent in the past four years. Out of overall services sector, the sub-
sector comprising financial services, real estate and professional services contributed US$ 305.8 billion or 20.5 per cent to the GDP. The sub-sector of community, social and personal services contributed US$ 188.2 billion or 12.6 per cent to the GDP. The third-largest sub-segment comprising trade, repair services, hotels and restaurants contributed nearly equal or US$ 187.9 billion or 12.5 per cent to the GDP, while growing the fastest at 11.7 per cent CAGR over the period 2011-12 to 2014-15.

As far as investment opportunities is concern, the Indian services sector has attracted the highest amount of FDI equity inflows in the period April 2000-May 2015, amounting to about US$ 43.35 billion which is about 16.8 per cent of the total foreign inflows, according to the Department of Industrial Policy and Promotion (DIPP). Some of the developments and major investments by companies in the services sector in the recent past are as follows:

- The Indian facilities management market is expected to grow at 17 per cent CAGR between 2015 and 2020 and surpass the $19 billion mark supported by booming real estate, retail, and hospitality sectors.
- Fairfax India will look to acquire controlling stake in collateral management and weather advisory firm National Collateral Management Services (NCML) where the deal size could be $150-180 million.
- Amazon, the world’s largest online retailer, plans to invest Rs 31,700 crore (US$ 5 billion) in India in addition to the US$ 2 billion investment it committed two years ago, in expanding its network of warehouses, data centers and increasing its online marketplace, besides launching an instant video and subscription-based ecommerce services for high-end buyers, called Amazon Prime, later this year.
- The private security services industry in India is expected to register a growth of over 20 per cent over the next few years, doubling its market size to Rs 80,000 crore (US$ 12.94 billion) by 2020.
- The Government of India has awarded a contract worth Rs 1,370 crore (US$ 221.63 million) to Ricoh India Ltd and Telecommunications Consultants India Ltd (TCIL) to modernise 129,000 post offices through automation.
- Taxi service aggregator Ola plans to double operations to 200 cities in current fiscal year. The company, which is looking at small towns for growth, also plans to invest in driver eco-system, such as training centers and technology.
upgrade, besides adding 1,500 to 2,000 women drivers as part of its pink cab service by women for women.

- The Nikkei Services PMI for India stood at 51.8 in August 2015 – a reading above 50 signals expansion.

### 1.6 STATEMENT OF PROBLEM

In the developing countries, economies are shifting from agriculture to manufacturing to services. Most developed countries such as the USA, Japan, Germany, and UK have followed that route. Even within the BRICS economies, the current developing economies such as China, Russia and Brazil have gone through the same route and some emerging markets such as India seems to have defined the pattern and pass over the manufacturing sectors. The current stress in India is on services that contributes more than half of the economic growth. The inflows of FDI show the remarkable growth over the period of time. The global stock of Foreign Direct Investment stood at 1228 US$ billion where India is accounted for 2.80 per cent of total world FDI in 2013-14. The foreign direct investment (FDI) in India increased from Rs. 409 crore in 1991-92 to Rs.216711 crore in 2013-14 where the FDI inflows in service sector has a contribution of 18.14 per cent. The growth of the service sector provides a wide variety of foreign investment opportunity in the economy. There was a remarkable contribution of service sector in the GDP of the economy as the share of service sector was 59.57 per cent at the end of March 2014. There is a need to conduct research to know the growth and trends of the foreign direct investment in India, especially by evaluating the performance of service sector. There is a need of comprehensive research which provides an empirical inter comparative study of service sector with other relevant sector and present the future estimation of the FDI inflows in these sectors. Therefore research is required to identify the determinants and measures their impact on FDI in service sector. It will help investors, regulators and other participants in better decision making.
1.7 RESEARCH GAP
The review of literature proves beneficial in identifying the research issues and the research gaps. These research gaps are mainly related with the construction of objectives of any study. The comprehensive literature review of earlier studies presented and discussed in the next chapter, it is found that there is hardly any research conducted in India related to inter-comparative study of FDI inflow especially in the context of service sector. The present study is different from earlier studies in following ways:

• The present study focused on the structure of Indian economy and emphasize on the performance of agriculture, industry and service sector.

• The study tries to evaluate the present trends of foreign direct investment and it provides an inter-comparative study of foreign direct investment in service sector with other relevant sector of India.

• Apart from t-test, multiple regression levene test and ANOVA, this research also applied distinguish statistical technique such as ARIMA model, ACF. PACF, Dicky- Fuller Augmented test which was rarely applied in Indian context.

• This research is differ from earlier studies as it present the forecasting of foreign direct investment in service sector for next five years and compare with the future trends of other relevant sector for the same period.

• The research covers a relatively long period of recent fourteen years which start from April 2000 to March 2014. It is helpful in extracting the accurate facts based on analysis.

1.8 OBJECTIVES OF THE STUDY
The study covers the following objectives:

• To study the contribution of agriculture, industry and service sector in economic growth of India.

• To examine the role of inflows of foreign direct investment in service sector with total inflow of foreign direct investment in India during study period.

• To identify the economic variable such as GDP, AGGDP, Export, Trade balance, Trade Openness, Inflation, Exchange Rate, Foreign reserve and
Wholesale Price Index and evaluate their impact on foreign direct investment in service sector.

- To assess FDI oriented inter-comparative performance of the service sector with other relevant sector in India and forecast the inflow of Foreign Direct Investment in Service sector and other relevant sector for future five years.

1.9 HYPOTHESES OF THE STUDY

Hypotheses are the presumption, assumption, supposition and the statement which are to be tested in the light of the objectives. The hypotheses are mainly classified into null and alternative hypothesis. Null Hypothesis is the negligence of the statement and alternative hypothesis are the opposite of null statement. On the basis of objectives, following are the testable statement of the research-

**Null Hypothesis-1**
There is no significant impact of Services, Agriculture, Industrial and Manufacturing sector on the growth of Indian Economy.

**Alternative Hypothesis-1:**
There is significant impact of Services, Agriculture, Industrial and Manufacturing sector on the growth of Indian Economy.

**Null Hypothesis-2:**
There is no significant impact of Foreign Direct Investment in service sector on total FDI inflows in India.

**Alternative Hypothesis-2:**
There is a significant impact of Foreign Direct Investment in service sector on total FDI inflows in India.

**Null Hypothesis-3:**
There is no significant relationship of independent variables \(\textit{GDP, AGGDP, EX, TB, TO, INFL, EXR, FER and WPI}\) with FDI Inflows in the Indian service sector.

**Alternative Hypothesis-3**
There is significant relationship of independent variables \(\textit{GDP, AGGDP, EX, TB, TO, INFL, EXR, FER and WPI}\) with FDI Inflows in the Indian service sector.
Null Hypothesis-4
There is no significant difference in the FDI inflows in the Indian service sector and other relevant sector viz. construction, telecommunication and computer software for the actual and projected period under consideration.

Alternative Hypothesis-4
There is significant difference in the FDI inflows in the Indian service sector and other relevant sector viz. construction, telecommunication and computer software for the actual and projected period under consideration.

1.10 RESEARCH METHODOLOGY

Research Methodology is an important part of the research. Research methodology includes the criteria of variable selection, various tools applied, time frame of the study and sources of data in the study for analysis.

1.10.1 Variables Description and Model Specification

The macroeconomic indicators of an economy are considered as the major pull factors of FDI inflows to a country. The analysis of various theoretical rational and existing literatures provided a base in choosing the right combination of variable that explains the variation in the flow of FDI in the country. In order to have the best combination of variable for the determination of FDI inflow into India, different combinations of variable are identified and then estimated. The alternative combinations of variables included in the study are true with the famous specification given by United Nation Conference on trade and development (UNCTAD).

In order to choose the best variable, firstly, the flow major factors which influence the flow of FDI into country are independent. The proxy variables representing the factors are selected for the purpose of analysis and are shown in table.

<table>
<thead>
<tr>
<th>S.no.</th>
<th>Factors</th>
<th>Proxy variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Market Size</td>
<td>Gross Domestic Product (GDP) &amp; Annual Growth Gross Domestic Product (AGGDP)</td>
</tr>
<tr>
<td>2</td>
<td>Financial liquidity</td>
<td>Foreign Exchange Reserve</td>
</tr>
<tr>
<td>3</td>
<td>Currency Risk</td>
<td>Exchange rate</td>
</tr>
<tr>
<td>4</td>
<td>Economic Stability</td>
<td>Inflation, Wholesale Price Index</td>
</tr>
<tr>
<td>5</td>
<td>Government policy</td>
<td>Trade openness, Trade balance, Export</td>
</tr>
</tbody>
</table>
Dependent Variable

1. Service sector Foreign Direct Investment (FDI) Inflows: Foreign direct investment means investment by non-resident entity/person resident of outside India in the capital of an Indian economy. FDI as dependent variable, which is measured by number of independent variables, has been taken for the econometric analysis of service sector FDI in India

Independent Variables

Gross Domestic Product (GDP): GDP acts as a barometer to measure the economic health of the economy. If is defined as the monetary value of all the finished goods and services produced within a country's borders in a specific time period and it is calculated with the help of following equation: \( \text{GDP} = \text{C} + \text{G} + \text{I} + \text{NX} \)

"C" stands for all private consumption, or consumer spending, in a nation's economy.
"G" stands for government spending.
"I" stands for the country's businesses spending on capital.
"NX" stands for the nation's total net exports, calculated as total exports minus total imports. (\( \text{NX} = \text{Exports} - \text{Imports} \))

Higher GDP signifies the strong health of the economy and will lead to the flow of more capital form foreign. Accordingly it is expected to have positive relationship.

Annual Growth Rate of GDP (AGGDP): The annual growth rate of GDP measure the GDP for each and every year. The annual growth rate of GDP is calculated by:
\[ \text{AGR} = \frac{X_2 - X_1}{X_1} \]

Export (EX): The term export means selling and shipping of goods and service out of the port of a country. In International Trade, exports is refers to selling goods and services produced in one country (home country) to other country (foreign country). It is expected to have positive relationship with the FDI inflow.

Trade Balance or Balance of Trade (TB): It is the difference between a country's exports and imports. Balance of trade is the largest component of a country's balance of payments. A country has a trade deficit if it imports more than it exports; the opposite scenario is a trade surplus.

Trade openness (TO): Trade openness refers to the extent to which a country allows or has trade with other country. The trade-to-GDP ratio indicator is used to examine the trade openness and it is calculated for each country as the simple average (i.e. Mean) of total trade (i.e. the sum of exports and imports of goods and services) relative to GDP. This ratio is often called the trade openness ratio, although the term
"openness" may be somewhat misleading, since a low ratio does not necessarily imply high (tariff or non-tariff) barriers to foreign trade, but may be due to factors such as size of the economy and geographic remoteness from potential trading partners. More open economies generally have greater market opportunities, but may simultaneously also face greater competition from businesses from other nations.

**Inflation (INFL):** Inflation is defined as the continuous rise in the price of goods and services and fall in the purchasing power of money. High rate of inflation in any economy signifies the lack of stability in economy and inability of government or central bank to control the supply of money in the economy. Accordingly, it is expected that if inflation will be more then less FDI will be attracted.

**Exchange Rate (EXR):** Exchange rate is also one of the determinants of FDI inflows in service sector. FDI has two main motives, if the FDI motive is to serve the host country market, then the FDI and services are substitutes; in this case, the appreciation of the host currency attracts the FDI inflows due to higher purchasing power of the domestic consumers. On the other hand, if the objective of FDI is for re-export purpose, so the FDI and service are complemented, in this case, appreciation of the host currency reduces the FDI inflows through lower competitiveness. Thus, the depreciation in the host country exchange rate will increase the FDI inflow since it reduces the cost of capital investment.

**Foreign Exchange Reserves (FER):** Availability of foreign exchange reserves is one of the determinants of FDI inflow. It exhibit that the sign of economic growth in the countries in which adequate foreign reserves are available, and this attract the more inflow of FDI.

**Wholesale Price Index (WPI):** The wholesale price index (WPI) is the price of a representative basket of wholesale goods. Some countries use WPI change as central measure of inflation.
Table 1.7 Relationships between the Variables

The following table shows the expected relationship of independent variable with the FDI in service sector

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Variables</th>
<th>Symbol</th>
<th>Expected Relation with FDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gross Domestic Product</td>
<td>GDP</td>
<td>Positive</td>
</tr>
<tr>
<td>2</td>
<td>Annual Growth Rate of GDP</td>
<td>AGRGDP</td>
<td>Positive</td>
</tr>
<tr>
<td>3</td>
<td>Export</td>
<td>EX</td>
<td>Positive</td>
</tr>
<tr>
<td>4</td>
<td>Trade Balance</td>
<td>TB</td>
<td>Positive</td>
</tr>
<tr>
<td>5</td>
<td>Trade openness</td>
<td>TO</td>
<td>Positive</td>
</tr>
<tr>
<td>6</td>
<td>Inflation</td>
<td>INFL</td>
<td>Negative</td>
</tr>
<tr>
<td>7</td>
<td>Exchange rate</td>
<td>EXR</td>
<td>Negative</td>
</tr>
<tr>
<td>8</td>
<td>Foreign Reserve</td>
<td>FER</td>
<td>Positive</td>
</tr>
<tr>
<td>9</td>
<td>Wholesale Price Index WPI</td>
<td>WPI</td>
<td>Negative</td>
</tr>
</tbody>
</table>

MODEL BUILDING

\[ SFDI_t = \alpha + \beta_1 GDP_t + \beta_2 AGRGDP_t + \beta_3 EX_t + \beta_4 TB_t + \beta_5 TO_t - \beta_6 INFL_t + \beta_7 EXR_t + \beta_8 FER_t - \beta_9 WPI_t + \epsilon_t \]

where,
- SFDI = Service sector Foreign Direct Investment Inflows measured in INR Crore
- GDP = Gross Domestic product at constant price (amount in INR Crore)
- AGRGDP = Annual Growth Rate of Gross Domestic Product
- EX = Exports (Amount in INR Crore)
- TB = Trade Balance i.e., total Exports (Amount in INR Crore) – total Imports (Amount in INR Crore)
- TO = Trade Openness i.e., sum of Exports + Imports divided by GDP \{\frac{(Ex+Im)}{GDP}\}
- INFL = Inflation measured in term of percentages of consumer price (annual percentage)
- EXR = Exchange Rate in terms of percentage
- FER = Foreign Exchange Reserve (Amount in INR Crore)
- WPI = Wholesale price index annual average
- \( t \) = time frame
1.10.2 Application of Tools and Techniques

To serve the empirical part of the study, various statistical/econometrics tools have been used, which include the followings:

- Kolmogorov-Smirnov and Shapiro-Wilk Test to test the normality of the data of the different variables under consideration.
- Augmented Dickey-Fuller Test – to test for the stationarity of data of the different variables under consideration
- ARIMA model is used to project the Inflow of FDI in the Indian service sector.
- Autocorrelation function (ACF) and Partial Autocorrelation (PACF)
- In addition, t-test, regression and correlation have been used to support the results of the present study.

**Independent sample t-test:** The independent sample t-test procedure compares Means for two groups of cases. For t-test, the observations should be independent, random samples from normal distributions with the same population variance.

**Correlation:** It quantifies the degree of association between two variables or the strength of linear relationship between two variables and also indicates the direction of the relationship. The correlation coefficient denoted by r, measures the strength of linear relationship. The value of r is between +1 and -1. The values of r close to +1 or -1 represent a strong linear relation. The value of r closed to 0 means that the linear association is very weak. It could be state that there is no association at all, or the relationship is non linear (Tyrrell, 2009).

The Forecasting add-on module provides two procedures for accomplishing the tasks of creating models and producing forecasts. The Time Series Modeler procedure creates models for time series and produces forecasts. It includes an Expert Modeler that automatically determines the best model for each of your time series. For experienced analysts who desire a greater degree of control, it also provides tools for custom model building. The Apply Time Series Models procedure applies existing time series models—created by the Time Series Modeler—to the active dataset. This allows to obtain the forecasts for series for which new or revised data are available without rebuilding the models. If there is reason to think that a model has changed, it can be rebuilt using the Time Series Modeler.

The Time Series Modeler procedure estimates exponential smoothing, univariate Autoregressive Integrated Moving Average (ARIMA) and multivariate
ARIMA (or transfer function models) models for time series and produces forecasts. The procedure includes an Expert Modeler that automatically identifies and estimates the best-fitting ARIMA or exponential smoothing model for one or more dependent variable series, thus eliminating the need to identify an appropriate model through trial and error. Alternatively, a custom ARIMA or exponential smoothing model can be specified.

**ARIMA Methodology is used in order to predict the value of FDI inflow in India for five years** The E-VIEWS and SPSS as the main statistical software for estimation purpose have been employed. The projection of inflow of FDI in India involves various stages which are discussed as under:

- Firstly, the time series are tested for stationary both graphically and with formal testing schemes by means of autocorrelation function, partial autocorrelation function and using Augmented Dickey-Fuller test of unit root. If the original or differenced series comes out to be non-stationary some appropriate transformations are made for achieving stationary.

- Secondly, based on BOX-Jenkins methodology appropriate models are constructed using FDI inflow in service sector as dependent Variable and GDP, AGGDP, EX, TB, TO, INFL, EXR, FER and WPI independent variables. Here the ARIMA order is determined by Autocorrelation function (ACF) and Partial Autocorrelation (PACF) plots and accordingly different model are run to get best fitted model.

- Finally, forecasting performance of the various types of ARIMA models would be compare by computing statistics like Stationary R-square, Root mean Square Error (RMSE), Mean Absolute Percentage Error (MAPE), Mean Absolute Error (MAE), Maximum Absolute Percentage Error (MaxAPE), Maximum Absolute Error (MaxAE) and Bayesian information criterion (BIC) and accordingly the best fitted model is used for forecasting the FDI inflow in India.

In ARIMA model, first of all the Stationary of the Series is checked. So in order to check it different types of unit root test are available. Unit Root Test helps us to test whether a time series is stationary or non-stationary. A well-known test which is valid in large sample is the Augmented Dickey-Fuller test. **Augmented Dickey-Fuller test:**

In Statistics and econometrics, An augmented Dickey – Fuller test is a test for a unit root in a time series sample. An augmented Dickey – fuller test is a version of the
Dickey – Fuller test for a large and more complicated set of time series. The augmented Dickey – Fuller (ADF) Statistics, used in the test, is a negative number. The more negative it is, the strong the rejection of the hypothesis that there is a Unit root at some hypothesis that there is a Unit root at some level of significance.

1.10.3 Time Period of Study
In order to analysis the trend of FDI in service sector and for the purpose of testing the hypothesis period of Fourteen Years has been taken (2000-01 to 2013-14). Study also covered the five year period (2015-16 to 2019-20) for Projection of FDI inflow in the Indian service sector.

1.10.4 Sources of Data
The study has been carried out by exploiting the secondary sources of data. To serve the purpose of the study i.e. to carry out a comparative analysis of service sector FDI and the impact of Services sector on Indian economy, the data has been collected from the various sources :

- Journals, Periodicals and Magazines
- Reports and publications of national and international institutions
- SIA News Letters
- Business and Financial dailies.
- Text Books and Reference Books related to the subject.
- Websites of Department of Industrial Policy & Promotion

1.11 SIGNIFICANCE OF THE STUDY
Following are the main significance of the study:

- The study attempts to analyze the important dimensions of service sector FDI in India. The study works out the trends and patterns, main determinants and investment flows to India.
- The study covers the period of 14 years from 2001 to 2014, to assess the growth in service sector FDI.
- The period under study is important for a variety of reasons. First of all, it was during July 1991 India opened its doors to private sector and liberalized its economy. Secondly, the experiences of South-East Asian countries by liberalizing their economies in 1980s became stars of economic growth and development in early 1990s. Thirdly, India’s experience with its first
generation economic reforms and the country’s economic growth performance were considered safe havens for FDI which led to second generation of economic reforms in India in first decade of this century. Fourthly, increase in competition for service sector FDI inflows particularly among the developing nations.

- The study is important from the view point of the macroeconomic variables included in the study as no other study has included the explanatory variables which are included in this study.
- To bring out comparative study between service sector FDI and other sector of the economy.
- The study is appropriate in understanding the role of service sector FDI on economic growth in India during the period 2000-2014.
- Further projection of FDI inflow in the Indian service sector help to discuss the trend and implication on Indian economic growth.

1.12 LIMITATIONS OF THE STUDY

Research being never ending process makes ground for further researchers. Obviously, all studies have their own limitations and this study is no exception as such. Despite its theoretical and practical relevance, the study does suffer from limitations. These limitations are as:

- The data is taken from the secondary information therefore errors of secondary sources bound to be occurred.
- The study period is taken from 2000-01 to 2013-14. The data has been taken from authentic sources however inferences of the study are widely depends upon authenticity of data.
- The study is confined to India only and with some selected years while the inclusion of other developing countries under the purview of the study may influence the results.
- Though utmost care has been taken while selecting the variables having relationship with inflows of FDI in the Indian service sector but still the inclusion of some other variables may influence the results.
• The study is entirely based on the use of secondary data, while the inclusion of domestic and non-domestic investors’ perception regarding various variables and their relationship with FDI may give more appropriate findings.

1.12 PLAN OF THE STUDY

The chapters of the study have been classified as under:
The first chapter deals with the introductory background of the study. It covers the statement of problem, research gap, objectives of the study and hypotheses to achieve these objectives, research methodology adopted for the study, statistical tools and techniques applied, significance of the study and outline of the organisation of the study.
The second chapter discussed the review of literature which helped to find the research gap on the basis of which objective of the study have been set out and hypotheses have been framed to achieve these objectives.
The third chapter deals with the FDI inflow in India which covers the components of the FDI, mode of FDI entry, routes of inward flow of FDI and describes the trends of FDI inflow in India. It also covers the different policy phases of foreign capital in India.
The fourth chapter provides the analysis and interpretation of FDI inflow in service sector. It covers the performance analysis of agriculture, industry, manufacturing and service sector. It provides an inter-comparative study of Foreign Direct Investment in service sector with other relevant sectors of India. It also covers the forecasting of FDI in service sector with other relevant sectors.
The fifth chapter and the last chapter reveals the major findings of the study on the basis of the results of the data analysed and interpreted. On the basis of these findings, specific suggestions have been given. These suggestions will be helpful to the policy makers. A conclusion has also been drawn in the light of the findings. The directions for the future research have also been given.
REFERENCES


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