Chapter - 3

RESEARCH METHODOLOGY
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3.1. PROBLEM STATEMENT

Now, it is established fact that capital and investment are the essential pillars of economic development of every country. Savings, capital and investment along with human resources are the essential hub of development. But the short supplies of domestic capital limit the growth of developing countries. Low GDP keeps the savings and investment rates low, which in turn, limit growth. Poor technological base of production is another factor impinging upon growth of the developing countries. FDI mitigates these constraints to growth of the developing and emerging countries. FDI and foreign technology also brings with them the modern managerial practices. Market size, as manifested by population size and growth environment, including economic policy, specially the reform process, prevailing growth rates and future growth potential, beside others, may together affect the level and sectoral directions of inflows of FDI into the recipient countries (Sharma and Sharma, 2003).

Keeping in view the pivotal role played by FDI inflows, the government of India opened the Indian economy for foreign players in 1991 when the economic reforms process was initiated. The last 15 years have seen a marked increase in foreign capital inflows into India both in foreign direct investment and portfolio investment form. The inflows into portfolio investment mostly relate to
diversified equity holdings, and tends to be relatively volatile. This trend represents a break from the previous two decades. While foreign investment flows were significant in the 1950s and 1960s, FDI inflows were meager in the 1970s and 1980s. The trends and progress of FDI in India since 1991, an era of economic reforms and liberalization needs to be analyzed.

In modern times multinational corporations (MNC’s) also known as transnational corporations (TNC's) have become the major carriers of foreign capital and Technical Knowhow. (Deelip K. Singh 2007)

Gone are the days of skeptical view on FDI in India. The government both at union and at state level is seeking at their best to create the suitable climate, an atmosphere, an environment conducive to greater flows of FDI in India. (Thakur and Shandilya, 2008).

In recent years, Foreign Direct Investment (FDI) has evolved as a vital resource for the economic development of developing and under-developed countries. The inflows of FDI to both developed and developing countries have been progressively increasing throughout the decade of 1990s. But the developed countries are the highest gamers in-so-far as FDI inflows are concerned (World Investment Report, 2008). According to estimates of United Nations Conference on Trade and Development (UNCTAD). FDI flows for the year 2004 have risen to US $ 612 bn and US $ 255 bn in developed and developing countries respectively (Surjan, 2005).

The Role of MNC's from emerging economics is a distinctive facet of the current globalization wave. Goldstein shows that the
need to compete internationally and acquire the necessary competencies. (Andrea Goldstein 2009)

However, a close observation of the trends in FDI inflows would provide us a fact that the volume of FDI differs from country to country. That is some countries are attracting more foreign investment as compared to the others. For instance, China is outperforming the Asian region in this regard.

Mehta and Singh (2007) is of strong opinion that the Indian govt., over the years, has brought many drastic changes in the rules and regulations to improve the climate for FDI in India. The FDI inflows are becoming more and more vital for accelerating the desired degree of growth and development in different industrial sectors.

Hence, an attempt to study the recent trend of FDI in case of developing economies, SAARC countries, developed countries, Asian countries and world as a whole should be made-Keeping in view the fact that now-a-days almost every developing country is in a race to attract more and more foreign direct investment to them, it would be of at most importance to identify the factors influencing inward flows of FDI. The empirical investigations (Clegg, 1995; Chen, 1997 and Gribold and others, 2001) have found that this variation can be explained by various factors such as gross domestic product and its growth, R & D intensity, economies of scale, per capita exports and imports, exchange rate differentials, the level of development of the country's infrastructure, tariff barriers, dependence on host country raw materials, the level of political stability and political risk, proximity of the host country to
The government of India set for itself an ambitious target of achieving $10 billion of actual FDI inflows per year. However, our country has so far not succeeded in achieving this target. It will be achieved when business investors are attracted to make investments in it. Changes in the policies and actions of the Indian government have to influence the behaviour of foreign business investors to increase the flow of FDI. An understanding of the mindset of foreign business investors will provide the basis for making changes that can have real effect in increasing inflow of investments to India.

Mark and Maira (2000) have suggested four stages of the life cycle of decisions and actions for foreign investment projects. These stages are screening, planning, implementing and operating. Screening is the first stage of investment decision life-cycle, where the investor explores and screens the investment potential in different countries to select the best possible avenues. In Planning stage, the company starts evaluating the existing opportunities in that country. The company analyses the joint venture avenues, approval process, financing schemes, regulations, market potential, taxation, etc. In third stage -(Implementing), the company implements the work of the project. FDI starts flowing, actions relating to production, marketing, etc. are initiated at this stage. In the last stage (Operating), the projects start running fast. Returns or investment and growth become the most important consideration for the company. The company evaluates the local operations for the best returns.
The above mentioned four-stage process is a funnel, through which FDI flows from foreign investors into India. The greater the number of potential investors who perceive India favourably at the screening stage, the greater would be the number of proposals for investment in India. The lower the mortality at the second stage, the greater the actual investment. The faster the speed with which the decisions and actions proceed through all the stages, the faster the flow of FDI as well as the greater the benefit to the investors, who want their money to get to work fast. And the more successful the business investors are at operating stage, the more they are interested in bringing in more investments. According to the investigation of Mark and Maira, the majority of investor's proposals to invest in India are rejected at screening stage itself due to inadequate feedback and poor perception about India. The conducive environment and favourable policy may woo the investors in planning stage.

Thus, the four-stage process mentioned above has immense marketing implications for attracting FDI. The detailed study of the perception of FDI companies about the various factors (barriers and success) affecting FDI inflows may provide a better insight for enhancing investment prospects in India. In view of the above, there is also need to conduct a primary survey of executives of selected FDI companies having operations in India. The main factors which must be considered for the purpose of measuring perceptions include FDI regime, tariff and taxation, infrastructure, decision-making authority with State governments, bureaucracy, corruption, image of India, liberalization in exit barriers and labour laws.
The Asian region has become one of the attractive investment locations in the developing world. The openness of the economy was significant in attracting FDI for Indonesia. The study implies that the market size attracted FDI inflows in Asian countries. Infrastructure proved to be another significant variable in the FDI inflows. (Bhatt, 2008)

3.2 OBJECTIVES OF THE STUDY

The objective of the present study is to address the aforesaid issues in foreign direct investment in India. More specifically, the present study is conducted to achieve the following objectives:

1. To summarize and analyze the various FDI policies, adopted by Indian government since independence;

2. To bring out the emerging trends in regard to FDI inflows in India according to sector, industry, state and country;

3. To examine the emerging scenario of FDI inflows at the global level;

4. To compare the position of FDI inflows in India, developing countries, China and SAARC countries;

5. To make an appraisal of current investment climate in India;

6. To bring out the perceptions of foreign investors regarding availability of infrastructure, skilled manpower, legal procedures, etc.

7. To identify the major determinants of FDI flows to a country;

8. To make suggestions for attracting more FDI inflow to India.
3.3 HYPOTHESIS

The study aims to test the following hypothesis.

H.1 The expected sign of GDP Per Capita (GDPPC) under regression Analysis is positive.

H.2. The expected sign of GDP Growth (GDPGR) under regression Analysis is positive.

H.3. The expected sign of Power Consumption Per Capita (POWCOM) under regression Analysis is positive.

H.4. The expected sign of Export as a percentage of GDP (EXPGDP) under regression Analysis is positive.

H.5. The expected sign of External Debt as percentage to exports (EXDET) under regression Analysis is Negative.

H.6. The expected sign of Adult literacy (ADL1T%) under regression Analysis is positive.

H.7. The expected sign of Inflation rate (Inflation %) under regression Analysis is Negative.

H.8. The expected sign of Secondary grade enrolment for females (SECEDFEM) under regression Analysis is positive.

The study strive to test the null hypothesis, that all the regression coefficient are equal to zero.
Statistically: $H_0: b_1 = 0, b_2 = 0, b_3 = 0, b_4 = 0, b_5 = 0, b_6 = 0, b_7 = 0, \text{ and } b_8 = 0$, $H_a$: Atleast one $b_i \neq 0$ alternative Hypothesis that $y$ depends on atleast one of the $x_i$ variable.

### 3.4 SOURCE OF DATA AND REFERENCE PERIOD

In order to achieve the objectives of the study both secondary and primary data have been used. The prime source of secondary data include SIA Newsletter, DIPP, GOI, UNCTAD-World Investment Reports, World Development Reports, Human Development Reports, Reserve Bank of India Bulletins, FICCI Survey Reports, CII Survey reports, etc. Internet has also remained as an important source of secondary data (list of sites visited attached as Appendix-I).

The reference period for the purpose of analyzing trends of FDI flows into India is primarily August 1991 to December 2007. However, for analyzing global scenario of FDI according to region/economy, the data from 1991-2007 have been considered. Further, the reference period concerning determinants of FDI in developing countries is set in from 1991-2007.

In order to study the perception of FDI companies about the various factors (barriers and success) affecting FDI inflows to India, a primary survey of 25 companies (Appendix 2) was conducted. The main factors considered for the purpose of measuring perceptions include FDI regime, tariff and taxation, infrastructure availability, bureaucracy, image of India, corruption level, liberalization in existing barriers and labour laws. The main instrument used for conducting the survey was questionnaire constructed for this purpose.
3.5 DATA ANALYSIS

The collected data was arranged in the form of tables so that meaningful inferences could be drawn out of the collected data. The analysis was carried out by making use of both simple and advanced statistical tools including graphs, index members, multiple graphs, index numbers, percentages multiple regression analysis, correlation and t-test.

For analyzing the emerging trend of FDI in India, global level, developing countries and SAARC countries, we analyzed the secondary data with the help of percentages, Index numbers and t-test. Moreover, to facilitate the readers to understand the trends, some of the data have also been to understand the trends, some of the data have also been presented by way of graphs. In so far as the analysis of primary data is concerned, the filled questionnaire was first edited, and then frequency tables were constructed. Then the percentages were computed based on the frequencies against each response.

In order to achieve our objective of identifying the factors having influence on inward flow of FDI, we have taken a large sample size comprising of 50 countries (Appendix 4.). All the selected countries belong to the category of developing economies, as per the classification given in the World Investment Reports, 1991-2009. As many of the developing countries initiated the process of financial sector reforms since 1988-1991. The reference period for the study is taken from 1991 - 2007. With a view to make the study useful and interesting, the reference period was divided in four segments for analysis purpose. These (1)1991 to 1994 (2) 1995 to 1999 (3) 2000 to 2003 (4) 2004 to 2007. It also
needs mention that the sample includes only those countries which could attract an average annual inward FDI of US $ 80 million during the period 1991 to 2007.

To determine the factors influencing FDI inward flows, the use has been made of the following step-wise multiple regression (backward elimination) equation:

\[ y = a + b_1 x_1 + b_2 x_2 + b_3 x_3 + b_4 + b_5 x_5 + b_6 + b_7 x_7 + b_8 x_8 + u \]

In this equation, \( y \) is the dependent variable, \( x_1 \) to \( x_8 \) are independent variables, \( a \) is constant, \( b \) are regression coefficients for various variables and \( u \) = error term. The independent variables include: \( x_1 \) = per capita; \( x_4 \) = exports as percentage of GDP; \( x_5 \) = external debt as percentage to export; \( x_6 \) = adult literacy; \( x_7 \) = inflation rate, \( x_8 \) = secondary grade enrolment of females. The data on both dependent and independent variables have been collected from the various issues of World Investment Report, World Development Report and Human Development Report. Average of data for the respective durations on the various variables is being used for the analysis. The expected nature (i.e. +ve or -ve) of relationship between the various independent variables and the dependent variables is shown in Table 1.1 (next page).
TABLE 3.1

Expected Sign of Partial Regression Coefficients in
Regression Analysis

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Variables (Abbreviation)</th>
<th>Expected sign.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>GDP per capita (GDPPC)</td>
<td>Positive</td>
</tr>
<tr>
<td>2.</td>
<td>GDP growth (GDPGR)</td>
<td>Positive</td>
</tr>
<tr>
<td>3.</td>
<td>Power consumption per capita (POWCOM)</td>
<td>Positive</td>
</tr>
<tr>
<td>4.</td>
<td>Export as a percentage of GDP (EXPGDP)</td>
<td>Positive</td>
</tr>
<tr>
<td>5.</td>
<td>External debt as a percentage to exports (EXDET)</td>
<td>Negative</td>
</tr>
<tr>
<td>6.</td>
<td>Adult Literacy (ADLIT %)</td>
<td>Positive</td>
</tr>
<tr>
<td>7.</td>
<td>Inflation rate (Inflation %)</td>
<td>Negative</td>
</tr>
<tr>
<td>8.</td>
<td>Secondary grade enrolment for females (SECEDEFEM)</td>
<td>Positive</td>
</tr>
</tbody>
</table>

The data is processed by considering per capita FDI as the dependent variable. SPSS software is applied to process the data pertaining to this study. The study strives to test the null hypothesis that all the regression coefficients are equal to zero. Statistically-

\[ H_0; b_1=0, b_2=0, b_3=0, b_4=0, b_5=0, b_6=0, b_7=0, \text{ and } b_8=0 \]

\[ H_a; \text{ at least one } b_i \neq 0. \]

Alternatively hypothesis that y depends on at least one of the \( x_i \) variables. The significance of regression effect is tested by computing the F-test statistic (ANOVA). In order to examine whether the cross-country data suffers from the problem of auto-correlation, Durbin Watson test is applied.

The independent variables considered for this study have
been decided after reviewing the existing studies on the subject. These variables are briefly explained below:

**Dependent variables:** as stated earlier, Per-Capita FDI inflows are taken as dependent variable. The FDI inflows have been measured in millions of US dollar for each country and divided by the population in the beginning of the respective year for determining per capita FDI.

**Independent variables:** *per capita GDP:* While the first independent variable, per capita GDP in purchasing power parity terms shows the level of economic development of a market and purchasing power of the people.

**GDP growth rate:** The second variable (GDP growth rate) represents the growth in markets of the host country.

**Per capita power consumption (POWCOM):** Per capita power consumption (POWCOM) is an independent variable considered as an indicator of the level of infrastructure development in the host country.

**Exports as a percentage of GDP (EXPGDP):** Exports as a percentage of GDP (EXPGDP) is a ratio between the export of a particular year and GDP of the same year. This variable is considered because it is representative of openness of the economy and the level of liberalization in the economy in terms of international trade and foreign transactions.

**External debt as a percentage of Exports (EXDET):** External debt as a percentage of Exports (EXDET) is the ratio of the amount of outstanding external debt of a country at the end of a
particular year and the exports of that year. It is a variable that represents the debt burden of the country. Actually, this ratio may be revealing the pressure on the foreign exchange reserves.

**Inflation level:** As the inflation level of a particular country can influence the prices of inputs of production in the host country, this variable has been considered in this study. In fact unduly high inflation may affect the FDI inflows adversely.

**Adult Literacy Rate (ADLIT):** Adult Literacy Rate (ADLIT) refers to the literacy ratio among the adult population of the host country. This ratio is an indicator of the availability of skilled manpower in the host country.

Literacy rates of 1997-2007, have been considered for first, second and third data sets respectively.

**Secondary School Enrolment for Females (SECEDFEM):** Secondary School Enrolment for Females (SECEDFEM) is another independent variable considered in the present study. According to Human Development Report, the variable represents the percentage of girls, aged between 11 to 17, who are enrolled into secondary grade education. The assumption taken while selecting this variable is that higher the percentage of female education in a country, higher will be the potential for development in that country. This variable is also considered as an indicator of skilled labour supply and signal FDI attractiveness of a country.

Besides above, there are other variables, which are important determinants of FDI. Some of them include political risk, legal issues, corruption level, tariffs level, rail, road, and I.T.
infrastructure. Due to the non-availability of the data on these variables for each year and each country, they were not considered for the application of regression model.

Any type of research cannot be conducted abruptly. One has to proceed systematically with the help of a number of sequential steps. The major research steps going to be adopted in this research project as a research process:

![Research Process Diagram]

a. PROBLEM DEFINATION

In context of the present study the problem identified as “inflow of foreign direct investment into India- A critical analysis”. To analyze this problem a descriptive research is going to be undertaken.

RESEARCH DESIGN

The research design here specifies the methods used for data collection and analysis.

DATA COLLECTION METHOD

It highlights the sources from where the data has been collected. Both primary and secondary sources of data can be used for the study. A rigorous perusal is going to make for empirical data availability from various government and non-government sources.
**SOURCES OF SECONDARY DATA USED**

**Government Source**
- Ministry of Finance,
- Ministry of Industry,
- Reserve Bank of India

**Industry Sources**

**Commercial Constants**
- A.T.Kearney consultants, Boston Consulting Group, McKinsey Consultants CII.

**Miscellaneous**
- News Papers, Journals, Books.

**Periodic bulletins and Research Papers Published by these Organizations on their web sites.**

**Research papers published by this organization on their web sites.**


**METHOD OF COLLECTING PRIMARY DATA**

In order to collect primary data survey method will be used. With the use of surveys through questionnaires, a wide range of valuable information on overall behavior of the investors i.e. attitudes, motives and opinions will be gathered. A structured non-disguised questionnaire is framed, which outlined various factors
which affected the perception of country risk and choice of India as a host country. Since the questionnaire contained data regarding sensitive issues, it will be sent to Head Offices through e-mail. In some cases Head Offices / Local branch offices of MNC's will be visited to find general perception of executives about India.

1. **SAMPLING PLAN**

(I). **DEFINING THE TARGET POPULATION**

For the current study, the target population is defined as all the multinational companies which had a stake in India.

(II). **SELECTING SAMPLING PROCEDURE**

Judgement non-probability sampling procedure will be used to select samples from the population. The strategy adopted to choose the sample is simple. The economy of India is divided into various sectors and on basis of the investment attracted by each segment, the top segments (market leaders) are chosen and 2-3 Companies from each segment, which have high percentage share of total investment.

(III) **SAMPLE SIZE**

Since the whole of the population could not be studied in the research, a relevant fraction of the population, which was representative of the whole universe, is going to be selected. A sample of 25 companies is chosen on the basis of influx of investment in each sector. A preliminary research shows that more investment came into Banking and Consultancy services, Computers, Automobiles, Electronics and electrical equipment, Food and beverages, power, Telecommunications, Cosmetics,
Pharmaceuticals, Construction and real estate. HLL and Procter and gamble are two MNC's having a highly diversified portfolio and stake in almost all the sectors of Indian Industry. Therefore their contribution and perception on Indian Industry could not be neglected.

(IV.) SAMPLE COMPOSITION

It discusses the details of the Company from which the primary data has been collected. The sectors chosen for the sample and the nature of the companies are an important part of sample composition. Sample composition gives an exhaustive list of services provided by these companies, the name of foreign counterparts, home country and the route/vehicle by which it entered into India.

C. FIELD WORK

To conduct actual data collection operational fieldwork was performed. The data was collected through following means.

(I) PERSONAL INTERVIEWS

In personal interviews, the perception of peoples at large in foreign companies in India are to be studied. For this interview will be conducted in a face-to-face meeting. The executives of the companies will be approached and interviewed personally.

(II) TELEPHONE SURVEYS

In some cases, telephone/mobile is also going to be used to follow up questionnaire for the research purposes.

(III.) E-MAIL SURVEYS

As some of the data require in the questionnaire may be of
sensitive nature. It could not be filled at lower level and thus had to be collected through E-mails from head office or from the regional branches.

D. DATA ANALYSIS AND INTERPRETATION

In this research project an attempt is made to organize and summarize the processed data in order to increase the usefulness of results and to correlate critical points of the data for the achievement of objectives of the study. For this purpose following simple statistical measure can be used.

(I) PERCENTAGES

These have been used to make comparison between two or more series of data so as to describe their relationship and establish a trend for time period under analysis.

(II) CORRELATION

Simple correlation (r) between FDI per capita & other determinants can be found.

(III) LEAST SQUARE MATHOD

Using ordinary least square linear equation, the explanatory variables are regressed.

(IV) REGRESSION ANALYSIS; Determinants can be found to be statistically significant with the help of regression analysis by applying SPSS software.

(V) AVERAGES

Averages like mean can be used to summarize the data and facilitate comparison of the various information.

(VI). EMPIRICAL ANALYSIS

As the economic time series move together, therefore, if we
include all the above variables simultaneously in the equation, there may be a possibility of multicolinearity. Durbin Watson test can be applied to study the problem of auto correlation.

E. DATA PRESENTATION

Data processed is not only going to be presented in the form of tables but an attempt is also going to be made to present data in the form of pie charts, Bar, and line graphs.

F. LIMITATIONS

The research design would not be complete unless the limitations/bottlenecks were also foreseen and steps were taken to remove the same. Though the attempt was made to overcome the bottlenecks faced during the research work yet some of the limitations that remained unsolved were

i) The biggest problem faced was the non-responsive nature of the respondents from whom the primary data was to be collected. Though, attempt was made to reduce this by approaching the intended people through references and sending multiple reminders yet the very nature of respondents affected the answers given by them.

ii) Some of the data provided by the organization was sensitive and qualitative in nature. Thus, there was no hard and fast rule of confirming the results. To reduce the effect of this on the study the average were taken and comparisons were made between the figures provided by government and various other agencies.

iii) The data analysis in terms of flow of investment into the country, state and sector has been conducted on the number of approvals as the data for actual sectoral and yearly inflows was not available.
3.6 RATIONALE OF THE STUDY

Keeping in view the various issues analyzed at length in the present study, it can be concluded that the study is a literary addition to the existing body of knowledge on the subject under consideration. The findings of the study would be beneficial to the multiple groups of people. First, the study will be increasingly beneficial to economic policy-makers related to institutions, economy and regulatory bodies. Second, the study may help the corporate sector, willing to take advantage of international financial flows. Last, it is hoped economics, academicians, researchers and students working in the area of international business in general and FDI in particular.

3.7 ORGANIZATION OF THE STUDY

The study organized in eight chapters or follows:

Chapter 1 describes the concept, importance and dangers of FDI, an overview of foreign direct investment theories and foreign investment policy in India since independence.

Chapter 2 deals with review of earlier studies regarding impact of foreign direct investment and its determinants.

Chapter 3 describes the research problem, research objectives, hypothesis, research methodology and organization of the study.

Chapter 4 makes an analysis of FDI inflows to India across sector, state and investing country.

Chapter 5 presents the global view of FDI inflows along with comparison of India with China, SAARC, developing and developed countries.
Chapter 6 portrays the impact of major macro-economic and socio-economic variables on inflows of FDI in developing countries.

Chapter 7 discusses the results of primary survey of foreign business investors regarding their perceptions about investment in India along with an appraisal of investment climate in India.

Chapter 8 provides the summary of the findings along with some conclusions drawn based on them.
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