FDI AND CORRELATIONSHIP BETWEEN FDI AND ECONOMIC DEVELOPMENT OF INDIA

Cristy Goyal
Assistant Professor
Chandigarh Business School of Administration (CGC)
Landran, Mohali (Punjab), India.

Abstract

Foreign investment or FDI is the net inflow of investment in a foreign country with a stake of 10% or more. The need for the same can be defined in various terms which are multiple times for developing or emerging markets. By keeping into account all such facts, the study is being done to cover various objectives related to FDI. The research paper comprises of the overview of FDI and the need for FDI as per the current scenario. Also, trends of the past five years have been taken in comparison to GDP (as a measure of Economic Development) to find out the relationship between FDI and the Economic Development of India. Such a relationship is being found out using Correlation as a statistical tool. Having a look at the results of the relationship, strategies have been suggested to attract maximum foreign investment in India.

Keywords: FDI, GDP, Correlation.

Introduction

Foreign Direct Investment refers to the inflows of investment by an individual or a firm with a stake of 10% or more in any Company operating in a country other than that of investors. If that stake is less than 10% then such an investment is considered to be a part of the stock portfolio as per IMF. This 10% stake doesn't include controlling interests but comprises of impact on the company's management, policies, and operations and like. As per the report of UNCTAD, $1.2 trillion was a total global foreign direct investment in 2018 which is 20% down as per 2017 data.

Different agencies keep track of FDI statistics such as UNCTAD which summarizes trends of FDI, OECD who works for its member countries and publishes quarterly FDI data and many more. The very purpose of these agencies is to keep track of the movement of foreign investment at a global level.

The **Need for FDI** can't be ignored at any level. Its benefits have been seen all around the world especially with multiple impacts on developing and emerging markets. These markets are in a need of multinational funding to expand the sales domestically and internationally. Not only this, these funds are being utilized for technology up-gradation, expansion of infrastructure, the boost of energy which in return leads to an increase in job opportunities and expansion of the business market.

Another list of benefits for investors is that they get exposure to diversify the investment along with long-term stable financing. Also, they get access to the resources of the country of their investment. In addition to this, the market size expands for them leading to an increment in the opportunities.

Literature Review

Hichem Dkhili et al. (2018) study the relationship between Economic Freedom and FDI in comparison to Economic Growth about the Gulf Cooperation Council. The study includes five different GCC countries as Saudi Arabia, Qatar, United Arab Emirates, Kuwait and Oman, and the study was conducted from 1995 to 2017 time period. The findings of the study indicate that there is a positive and significant relationship between Economic Freedom and FDI in comparison to Economic Growth.

Raja Mannar, B. (2018) researches to find a correlation between FDI and indicators of Economic Development such as GDP, Sensex and Nifty. The study proved that the inflow of foreign direct investment has a great impact on the entire economy and its growth. FDI has contributed a lot towards technology up-gradation and also towards enhancement of global managerial skills. The results of the study indicate that there is a strong and positive relationship between FDI and Sensex and FDI and Nifty.

Sayari et al. (2018) and **de Haan and Sturm (2000)** undertakes a study on the relationship between Foreign Direct Investment and Economic Freedom Index (EFI) and value-added components of GDP. The study covers thirty Eastern, Western and Central European Countries. The findings show that there is a slightly negative relationship between FDI and EFI. The study also proves that FDI act as a substitute for the domestic shortage of capital.

Ubeda and Perez-Hernaandez (2017) and **Ulubasoglu and Doucouliagoa (2006)** researched on manufacturing industries of Spain to study the effect of Foreign Direct Investment on productivity growth from the time of 1993 to 2006. The findings of the study are that there is a negative effect of foreign direct investment on the productivity growth of manufacturing industries in Spain. They adopted the theoretical model to study the non-linear relationships between the same.

Nguyen and Anwar (2014) investigate the impact of FDI spillovers on Total Factor Productivity (TFP) in Vietnam in eight regions. According to the study, the result varies across different regions of Vietnam but there is a positive relationship between FDI generated spillovers and TFP.

Nowak-Lehmann et al. (2012) study the relationship between per capita income and FDI as an aid. The research shows that the relationship between FDI and investment moves in a positive direction whereas it moves in a negative direction when the study of the relationship between FDI and domestic savings and the real exchange rate comes.

Statement of the Problem

Foreign Direct Investment (FDI) is directly linked with the formulation of global strategies for national development. The relevance of FDI is on a hike every passing day is due to positive results furnished globally. These positive outcomes can be defined in terms of an increase in employment, domestic productivity and like. With the same pace, FDI benefited India too in terms of investment in infrastructure, innovations and converting India to the business environment. It’s not that India cannot grow without FDI as earlier growth rates are the proof when there was no or little Foreign Investments till the 1980s. But for sure there will be a positive difference in growth rates with FDI which will be multifold. This study has been conducted to understand the trends and the impact of FDI on economic development in the context of India and to know how to boost more FDI.

Objectives of the Study

The concept of FDI can be extended to a cover multifold knowledge but due to limited time and other constraints, the study includes the following objectives:

- To know the overview of FDI in the present scenario along with highlighting the need for FDI.
- To study the trends of FDI over the past five years in India.
- To understand the relationship between FDI and Economic Development of India in terms of GDP rate.
- To formulate the strategies to boost FDI in India.

Sources of Data

There are two sources of data collection: primary and secondary sources. In primary sources, data is being collected for the first time by the researcher whereas, in the case of secondary data, already collected data is being used for the research.

For the present study, only secondary sources of data are being used. Various online journals, articles, blogs related to FDI are being used and for data and statistics, the Department of Economic Affairs (MOF) is being used to ensure the reliability of data.

Tools Used For Analysis

Analysis is the most core area of research and needs to be done with utmost care. Tools used for analysis in this study are statistical tools like GDP rates and correlation which are being applied to know the direction and extend of the relationship between FDI and the Economic Development of India in terms of GDP.

Time of the Study

The period for the study is the past five financial years from 2014-15 to 2018-19. This time has been selected to have a better understanding of FDI in the current scenario.

Limitations of the Study

The biggest limitation of this study is the time constraint which restricts the scope and objective of the study. Numerous concepts can be researched for but lack of time-limited the study to a few objectives only. And also only GDP rates are being considered as an index of Economic Development where there are many.

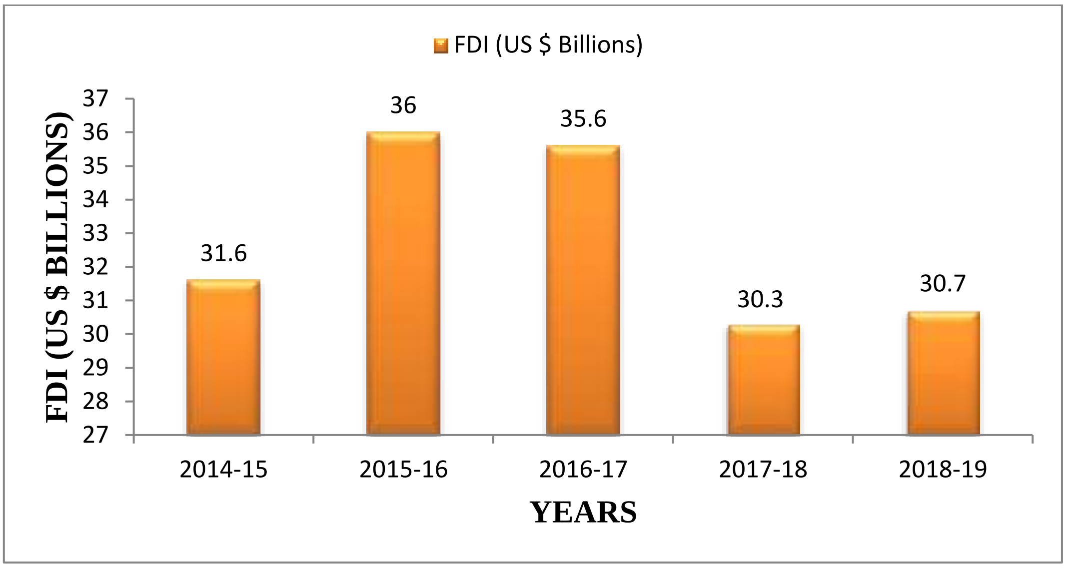
Statistical Data

Table 1: FDI AND GDP at Market Prices

Year	FDI (US $ Billions)	GDP* (%)
2014-15	31.3	7.3
2015-16	36	7.9
2016-17	35.6	7.1
2017-18	30.3	6.7
2018-19	30.7	6.8

*Provisional or 1st Revision Estimates as per Financial Report of Government

Fig 1: Trends of FDI over the past 5 years in India



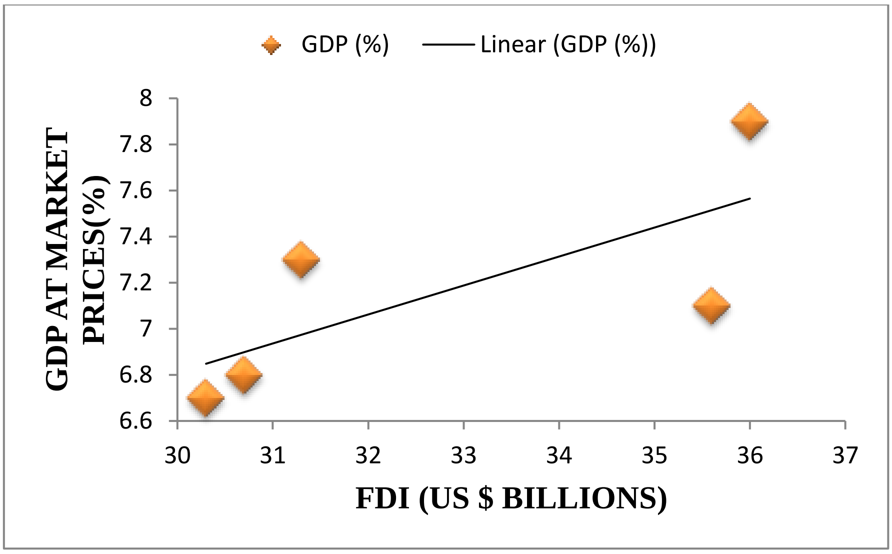
From 2014-15 to 2015-16, there was a tremendous increase in FDI in India but since that period, it keeps on declining with a huge fall in the year 2017-18. According to Sachin Taparia, founder of Local Circles is of opinion that this fall is due to the lack of certain policy in India followed by upcoming elections. Now, the efforts have been made to attract more foreign investors without any special offering which leads to a slight increase in FDI in 2018-19.

Data Analysis and Interpretation

To find out the relationship between FDI and Economic Development of India, CORRELATION is being used as a tool of Analysis. To define Economic Development, GDP at Market Prices has been taken as its component. Correlation is a statistical tool that proves the existence of a relationship between two variables and also defines to what extent that relationship exists. To achieve the objective of the study, **Scattered Diagram** is being used to show graphically the relationship between FDI and GDP and also to have a look at the direction. And also, **Karl Pearson's Coefficient Correlation** is being used to define how strong the relationship between both is.

SCATTERED DIAGRAM

Fig 2: Relationship between FDI and GDP at Market Price*



*GDP at Market Price is taken as an indicator of the economic development of India.

As per Fig 2, FDI is taken on X-Axis as an Independent Variable whereas GDP is taken on Y-Axis as a Dependent Variable. Dotogram is showing the data in an upward direction which indicates that there is a **POSITIVE RELATIONSHIP** between FDI and GDP (Economic Development). This depicts that with the increase in FDI, GDP also shows an increase i.e. increase in the Economic Development of the Country and vice versa.

As far as the degree is being concerned or how deep is the relationship between both is, it can't be predicted through this scattered diagram as only the last few years have been taken as statistical data. If it has been related to the past 10 years approx. then scattered diagram must have served the purpose in the degree. So in this case, the Degree of Correlation will be calculated with the help of Karl Pearson's Method.

KARL PEARSON'S COEFFICIENT CORRELATION

$$r = \frac{\Sigma(X-\overline{X})(Y-\overline{Y})}{\sqrt{\Sigma(X-\overline{X})^2}\sqrt{(Y-\overline{Y})^2}}$$

Where, $\overline{X}$ = mean of X variable

$\overline{Y}$ = mean of Y variable

Table 2: Correlation between FDI and GDP at Market Prices

Particulars	GDP
CORRELATION	
Pearson's Correlation Coefficient (r)	**+0.73**
Size of Population (N)	**5**

Karl Pearson's Correlation tells about the degree of relationship between two variables. The value of Correlation ranges between +1 to -1 where the value of 1 indicates a perfect relationship between two variables. '+' value shows there is a positive relationship i.e. increases in one causes an increase in other and vice versa whereas '–' value shows a negative or opposite relationship. As the value moves towards 0, the relationship keeps on decreasing.

As per Table 2, the value of the Coefficient of Correlation is +0.73 which indicates a positive relationship between FDI and GDP as proved under Scattered Diagram also. There is also a strong relationship between FDI and GDP as indicated by 0.73 value of Correlation. This strong relationship indicates that the Economic Development of India (GDP) is highly dependent on Foreign Direct Investment apart from other factors. The Government of India must contribute the maximum efforts towards the increase in FDI in India.

Findings of the Study

As per the objectives set in the study, the following are the findings in the study:

1. The flows of FDI in India from the past five years show different trends. It has been clear by the glimpse of Figure 1. There is an increase in FDI from 2014-15 to 2015-16 but from that year, there was a decrease in FDI flows in India with a significant fall in the year 2017-18. After this year, again there was a little increase in FDI with positive efforts.

2. There is a positive relationship between FDI and Economic Development of India. GDP is taken as a measure of Economic Development. This relationship is being shown by Scattered Diagram and also by the + value of Karl Pearson's Correlation Coefficient. The positive relationship means that an increase in FDI causes an increase in GDP and vice versa.

3. There is a strong relationship between Foreign Investment and Economic Development as shown by the Correlation value of 0.73 as indicated by Table 2. This means that the Economic Development of India is dependent on FDI to a great extend.

Suggestions

It's been clear from the study that FDI plays a very important role in the Economic Development of India. So it's very much important for the Government of India to make maximum efforts to attract maximum foreign investors in India which can be possible by following various strategies. These include:

- Reduction of Restrictions: To attract maximum investment in India especially foreign investment, the most important strategy is to allow for FDI inflows by the provision of an open and transparent market which includes flexible labor markets, ease of doing business, protection of IPR's and like.

- Provision of Infrastructure: The basic requirement for setting up a business in any country or for investment in any country is the adequate provision of infrastructure. This includes reliable and sufficient sources of energy, proper and close-by modes of transport, provision of vocational trainings, availability of skilled and semi-skilled workforce, etc.

- Target on Backward Linkages: It's not that welcoming FDI in India reaps benefits only. Ingenious industries are being negatively affected by the invitation of FDI in certain sectors. So to multiply the benefits, the proper study should be done to target only backward linkages from FDI.

- Invitation to multiple forms of assistance: FDI not merely means inflows of cash in the Indian Economy but it can comprise of multiple forms of direct help from foreign countries in the form of quality control, training, and development, financial planning, set up of production lines and many more.

- Support to local suppliers: Opening up of the Economy will be helpful to local suppliers only if there will be a proper set up of the Vendor Development Program to match the taste and preference of foreign customers. Also, there should be a proper offering of financial opportunities to the local vendors to face international competition and capture maximum share in the market.

Conclusion

The importance of inflows from foreign investors is clear cut from the research. Foreign Direct Investment has provided huge assistance in the form of technology up-gradation, and various other opportunities which in return leaving a positive impact on the Economic Development of India. There is a strong relationship between FDI and Economic Development of India which is being measurable in terms of GDP. That's why; it becomes a need of an hour for the Government to make efforts to attract maximum foreign investment in India. Few of the strategies are being suggested in the study which can boost FDI and Economic Development of India in return. There was a huge increase in FDI in the year 2014-15 to 2015-16 and the motive of every strategy of the Government should direct them towards the same pattern.

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