**IMPACT OF FOREIGN DIRECT INVESTMENT DETERMINANTS ON ECONOMIC GROWTH**

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**ABSTRACT**

This research is based on the impact of foreign direct investments on India's economic growth. Foreign direct investment decisions are influenced by several factors. It includes the country's political stability, exchange rates, foreign reserves, investment policies, GDP and regulations, economic stability, investment policies, inflation rate, and economic and investment stability. Additionally, foreign direct investments support increased trade and the provision of financial help. Foreign direct investment has helped the Indian economy's balance of payments issues. This paper's main objective is to analyse how foreign direct investment affects the growth of the Indian economy. The Gross Domestic Product (GDP), Population, Inflation, Foreign Exchange Rate, Trade, and Net Foreign Direct Investment Inflows are used as the study's variables. The influence of foreign direct investments on the Indian economy is examined using the Multiple regression method. The analysis is based on secondary data gathered from 1991 to 2022 from the various reports of UNCTAD and fact sheets of World Investment. The empirical findings indicate that foreign direct investments are important for the expansion of the Indian economy and that there is a strong correlation between FDI and GDP.

**Keywords: -** Foreign Direct Investment, Gross Domestic Product, Determinants, Economic Growth

**INTRODUCTION**

The rapid growth in Foreign Direct Investment by multinational enterprises may be attributed to significant changes in technologies, greater liberalization of trade & investment regimes, and deregulation & privatization of markets in many countries including developing countries like India. According to the IMF definition contained in the Balance of Payments Manual Fifth Edition (BPM-5), Foreign Direct Investment has three components; viz., equity; reinvested earnings; and other capital. Equity FDI is further subdivided into two components, viz., Greenfield investment; and acquisition of shares, also known as Merger and Acquisitions. Greenfield investment and M&As contribute positively to promoting economic growth (Adhana & Saxena, 2016).

Foreign Direct Investment (FDI) is a preferred method for capital inflow to an economy, contributing to economic growth and converting technology and knowledge. It plays a significant role in the Indian economy, generating returns in production and promoting sustainable growth through positive externalities. India is a popular destination for Foreign Direct Investments, with up to 17800 USD Million invested by August 2020. Key factors include low-wage labour, communication skills, and high literacy rates among skilled workers. Cheap resources and raw materials also attract FDI. Foreign Direct Investment Policies get more FDIs. Recently, Byju's made a USD 500 worth investment and, Cashaa invested USD 5 Million for the amplification of the crypto market. Further, the government of Singapore offered USD 63.84 million for the development of Phoenix Mills and Coralogix investment of 30 USD million. (Fonseka, 2020).

It is well-known that foreign direct investment (FDI) plays a pivotal role in augmenting economic growth in countries that face a shortage of financial capital, human capital, and technology necessary for growth (Adhikary**,**2012). In this respect, the Indian Government has taken economic reforms in 1991 which makes the country one of the major performers of global economies by placing the country as the 4th largest and the 2nd fastest growing economy in the world. India also ranks as the 11th-largest economy in terms of industrial output and the 3rd largest pool of scientific and technical manpower (Hooda, 2011).

**REVIEW OF THE LITERATURE**

A number of studies have been carried out covering various aspects of foreign direct investment. Some of the relevant studies relating to the present topic are being reviewed here as under**.**

**TABLE NO 2.1**

**Tabular Presentation of the Prior Literature**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Title | Author/s & Year | Objectives | Methodology | Findings | Research Gap |
| An Empirical Analysis of the Impact of Foreign Direct Investment on Economic Activity of India | **Jayaraj et al. (2011)** | To investigate the co-movement and converging behaviour between the two the movement of FDI and GDP. | Granger Casualty Test | The study showed that FDI did not Granger cause GDP but interestingly GDP has Granger cause on FDI. Further study shows the inter-relationship between these two variables. | Researcher can use others determinants too. |
| FDI and Its Impact on Indian Economy | **Srikanth et al. (2012)** | To study the impact of Foreign Direct Investment equity inflows on Indian economy by using monthly data for the period April 2005 to March 2011, before and after the eruption of Global Financial Crisis. | Granger Causality Test | As per the results, revealed that unidirectional causality from FDI equity inflows to IIP and WPI; and also, from foreign exchange reserves to FDI. | In this paper old data was used for the study and researcher can apply other econometric test for cross verification. |
| Foreign Direct Investment and economic growth literature review from 1994-2012 | **Mohammad et al. (2013)** | To examined the relationships between FDI and Economic Growth | OLS, Granger Causality, Cointegration, Error correction models | The results show that the main finding of the FDI-EG relation is significantly positive, but in some cases, it is negative or even null. And within the relation, there exist several influencing factors such as the adequate levels of human capital, the well-developed financial markets, the complimentarily between domestic and foreign investment and the open trade regimes, |  |
| Relation Between Inflow of FDI and The Development of India's Economy | **Arora (2013)** | The paper aims to find out the impact of economic reforms on FDI in India. The study also examines the constraints in increasing the level of FDI in India | Karl Pearson’s Coefficient of Correlation, Chi-Square | The study revealed that there is a positive relationship between the inflow of FDI and the development of India's economy. | The Scope of this research paper is limited only in two banks of the Delhi state. Therefore, researchers can include additional banks and states for in-depth studies in the future. |
| Foreign Direct Investment: Impact on Indian Economy | **Malhotra (2014)** | To study the trends and pattern of flow of FDI  To assess the determinants of FDI inflows  To evaluate the impact of FDI on the Indian economy  To know the flow of Investment in India. | Trend Analysis, Percentage method | Foreign Direct Investment has positive impact on Indian economy. FDI inflow supplements domestic capital, as well as technology and skills of existing companies. It also helps to establish new companies. All of these contribute to economic growth of the Indian economy | The paper provides the major policy implications from this analysis, besides drawing attention on the complexities in interpreting FDI data in India. |
| Foreign Direct Investment and Economic Growth in India: A sector-specific Analysis | **Jana et al. (2019)** | To examine as to how Sector wise FDI inflows can affect the growth of respective sectors in the context of an emerging economy like India. | Johansen Cointegration test, Vector error correction model, Granger causality test | Results showed that inward FDI is non-contributive to agricultural output growth, but reverse causality is observed, with agricultural output attracting more FDI. The manufacturing sector has shown positive effects from FDI inflows, while the service sector confirmed a bi-directional causality between FDI and growth |  |
| Impact of FDI on Indian Economic Growth | **Fonseka et al. (2020)** | To analyze the impact of foreign direct investment towards the growth of the Indian Economy | Simple Regression and Pearson’s Correlation | Study reveals that Foreign Direct Investments are significant for the growth of the Indian Economy and the positive association between FDI and GDP | There are limited variables, and the study period is up to 2019. Further COVID-19 impact studies should be done by the researcher. |
| Determinants of FDI and its Impact on Indian Economy Growth | **Mahapatra (2020)** | To investigate the relationship between FDI inflow and Gross Domestic Product in service sector. | Statistical model | This analysis has revealed that Foreign Direct Investment has positive and significant impact on GDP. | Study is limited on a single variable that is GDP, we can include other important factor in future study |
| Determinants of FDI and its Impact on Indian Economy Growth | **Baalark (2020)** | To study FDI determinants and how they affect economic expansion**.** | Content analysis | Study revealed that, the majority of FDI inflows are in sectors like manufacturing, financial services, telecommunication, construction activities and computer software and hardware in India. |  |
| Impact of Foreign Direct Investment on Economic Growth in India | **Shrivastava et.al (2021)** | To study the impact of FDI inflow on the GDP growth rate from 1970 to 2019 | Simple Regression | Study discovered that the FDI influx has a favourable impact on the nation's economic expansion. To draw the inflow to a significant level, the model's R2 indicated a tremendous demand for FDI influx into the economy as well as improvements to other parameters. The factors' association revealed that they favourably complement one another. | Study is limited on a single variable that is GDP, we can include other important factor in future study. |
| Economic Factors and Foreign Direct Investment in India: A Correlation Study | **Dhingra (2022)** | To investigate the degree of connection between FDI inflow in India and various economic indicators, including exchange rate, GDP, and openness of trade. | Pearson Correlation | The present study revealed that determinants of FDI inflow in India and several economic factors like exchange rate, GDP, openness of trade etc. are positively corelated with each other. |  |

The above review of literature proves beneficial in identifying the research issues and the research gaps, which are mainly the edifices on which the objectives of the present study are based. There is hardly any study in India which documents the impact of the FDI on the economic growth of India. Thus, the present study is an endeavour to discuss the influencing determinants of FDI and their impact on the economic growth in India. The present study tries to find out the major factors of foreign direct investment and then find out their positive as well as negative impact on Indian Economic Growth. The foremost topic of this study is based on “Impact of foreign direct investment determinants on economic growth.” This dispenses the empirical results on how Foreign Direct Investment affect the economic growth in India with the help of data from 1991 to 2022. Further, this study helps to find out the determinants and role of FDI on flourishing economic growth.

**OBJECTIVES OF THE STUDY**

The study specifically encompasses within its scope the following objectives:

* To study the determinants which influence the Foreign Direct Investment inflow in India.
* To examine the impact of Foreign Direct Investment on the economic growth of the country
* To give suggestions on the basis study.

**RESEARCH METHODOLOGY**

Data collection of information has been based on secondary data. To achieve the objectives data has been collected from various UNCTAD (world investment reports) from 1990-2022. There are six variables used to measure the impact. Foreign Direct Investment is taken as the independent variable whilst Gross Domestic Product, Trade, population, exchange rate, and inflation are taken as the dependent variable. And lastly, we have given suggestions on the basis of our study.

**DATA ANALYSIS AND INTERPRETATION**

The Multiple Regression Model is used to measure the impact of Foreign Direct Investments on Indian Economic Growth. Economic growth is measured by Gross Domestic Product, Trade, Inflation, Exchange Rate, and population. The multiple Regression Model can be mentioned as follows.

Y =b0+b1X1+b2 X2 +b3X3+b4X4+b5X5 +............+bnXn +Ut

FDI inflows in India =b0+b1 Trade + b2 population + b3 exchange rate + b4 inflation + b5 GDP.

To check the impact of independent variables on FDI inflows in India, the following hypothesis has been formulated:

H0(1): There is no significant impact of independent variables on the dependent variable.

H0:b1 =b2 =b3 =0, where b is the slope of the regression line or regression coefficient.

Ha (1): There is a significant impact of independent variables on the dependent variable.

Ha: b1 ≠ b2 ≠ b3 ≠ 0, where b is the slope of the regression line or regression coefficient.

**Table No 1: Descriptive Statistics**

|  |  |  |  |
| --- | --- | --- | --- |
| **Variables** | **Mean** | **Std. Deviation** | **N** |
| FDI Inflows | 29191.1250 | 28048.16074 | 32 |
| Trade | 412169.4806 | 344431.57362 | 32 |
| Population | 1171.1769 | 163.90588 | 32 |
| Exchange Rate | 49.4275 | 14.81704 | 32 |
| Inflation | 7.1642 | 2.99654 | 32 |
| GDP | 1357646.7625 | 1034030.40767 | 32 |

**Source: SPSS Multiple Regression Output.**

Table- 1, depicts the analysis of descriptive statistics of independent and dependent variables of India, like mean and standard deviation. The mean value of FDI inflow in India is 29191.1250, along with the standard deviation is 28048.16074. The mean values of independent variables, namely, Trade, Population, exchange rate, inflation and GDP of India are 412169.4806, 1171.1769, 49.4275, 7.1642, and 1357646.7625 respectively along with their standard deviation of 344431.57362, 163.90588, 14.81704, 2.99654, and 1034030.40767 respectively.

**Table- 2: Correlations Matrix**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **FDI INFLOWS** | **TRADE** | **POPULATION** | **EXCHANGE RATE** | **INFLATION** | **GDP** |
| FDI INFLOWS | 1.000 |  |  |  |  |  |
| TRADE | 0.621 | 1.000 |  |  |  |  |
| POPULATION | 0.535 | 0.631 | 1.000 |  |  |  |
| EXCHANGE RATE | 0.591 | 0.459 | 0.843 | 1.000 |  |  |
| INFLATION | -0.258 | -0.184 | -0.392 | -0.501 | 1.000 |  |
| GDP | 0.460 | 0.567 | 0.537 | 0.761 | -0.279 | 1.000 |

**Source: SPSS Multiple Regression Output**

The correlation matrix, shown in Table 2, shows the correlations between any two pairs of variables. Except for exchange rate and population and GDP and exchange rate, all pairings of independent variables have correlations that are less than 0.75, indicating that the analysis is not multicollinear except in this one instance.

Additionally, Table 2 demonstrates that for all independent variables, the variance inflation factor (VIF) index is less than 10. As a result, the regression model's multicollinearity assumption is satisfied, and there is no multicollinearity in the data.

**Table 3 Model Summaryb**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Model** | **R** | **R Square** | **Adjusted R Square** | **Std. Error of the Estimate** | **Change Statistics** | | | | | **Durbin-Watson** |
| R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .976a | 0.953 | 0.944 | 6636.52882 | 0.953 | 105.544 | 5 | 26 | 0.000 | 1.478 |

1. **Predictors: (Constant), TRADE, POPULATION, EXCHANGE RATE, INFLATION, GDP**
2. **Dependent Variable: FDI**

**Source: SPSS Multiple Regression Output.**

Multiple regression model statistics are shown in Table 3. The calculated value of the regression coefficient is 0.976, while the calculated value of the R2 coefficient is 0.953. The value of the coefficient of determination R2 explains that near about 95% of the variation in FDI inflows in India can be explained by Trade, Population, Exchange Rate, Inflation and GDP while the remaining 5 per cent variation in FDI inflows is explained by other factors which are not included in the model. The Durbin-Watson statistics are also obtained to examine the assumption of independence. The Value of Durbin Watson is 1.478 which falls between the accepted ranges of 1-3, indicating that there is no problem with autocorrelation. This simply means that the variables that belong to the model are not included in the error term, meaning that there is no specification error in the model.

**Table 4 ANOVAa**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Model** | **Sum of Squares** | **DF** | **Mean Square** | **F** | Sig. |
| Regression | 23242547562.833 | 5 | 4648509512.567 | 105.544 | .000b |
| Residual | 1145131382.667 | 26 | 44043514.718 |  |  |
| Total | 24387678945.500 | 31 |  |  |  |

**a.** **Dependent Variable: FDI Inflows**

**b. Predictors: (Constant), GDP, Inflation, Population, Exchange Rate, Trade**

**Source: SPSS Multiple Regression Output.**

The F-test determines that at least one of the regression coefficients is different from zero and explains the overall relevance or validity of the model. Table 4 shows that the computed F-value is 105.544, rejecting the null hypothesis, and the corresponding p-value is 0.000. As a result, it can be inferred that at least one independent variable significantly correlates with the Foreign Direct Investment, and analysis supports the validity or statistical significance of the entire regression model.

**Table 5 Coefficientsa**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Model** | **Unstandardized Coefficients** | | **Standardized Coefficients** | **t** | **Sig.** | **Collinearity Statistics** | |
|  | **B** | **Std. Error** | **Beta** | **Tolerance** | **VIF** |
| (Constant) | -121022.759 | 29010.2348 |  | -4.172 | 0.000 |  |  |
| Trade | -0.059 | 0.019 | -0.720 | -3.105 | 0.005 | 0.034 | 9.737 |
| Population | 133.298 | 33.181 | 0.779 | 4.017 | 0.000 | 0.048 | 6.818 |
| Exchange Rate | -717.367 | 353.059 | -0.379 | -2.032 | 0.053 | 0.052 | 3.262 |
| Inflation | 817.885 | 566.252 | 0.087 | 1.444 | 0.161 | 0.493 | 2.026 |
| GDP | 0.035 | 0.007 | 1.299 | 5.307 | 0.000 | 0.030 | 9.193 |

1. **Dependent Variable: FDI Inflows**
2. **Predictors: (Constant), TRADE, POPULATION, EXCHANGE RATE, INFLATION, GDP**

**Source: SPSS Multiple Regression Output.**

Table 5, presents the output relating to the significant linear relationship between individual independent variables and Foreign Direct Investment inflow in India. The standardised Beta – coefficient shows the relative contribution or importance of Trade, Population, Exchange rate, Inflation and GDP in predicting the value of FDI inflows in India. The analysis reveals that the population of India (0.779) is the most important variable in attracting FDI inflows in India, followed by inflation (0.087) and GDP (1.299). While other independent variables such as trade (- 0.720), and exchange rate (-0.379) have an inverse impact on FDI inflows in India.

The analysis indicates that the regression coefficient of inflation in India is 817.885, which is positive and statistically significant. Results state that with a one per cent increase in inflation, the FDI inflows in India will increase by 817.8 per cent by holding other variables constant, which is more than proportionately. The positive and significant value of the coefficient populations (133.298) illustrates that with a one per cent increase in the population, the FDI inflows in India will tend to increase by 133.2 per cent at the increasing rate, by holding other factors constant. GDP has also a positive influence on the FDI inflow in India, one per cent increase in the GDP, and the Foreign Direct Investment inflows in India will increase by 0.035 per cent also plays an important role in the policy formulation of the nation and also in the FDI policy of the respective country. The regression coefficient GDP (0.035) is positive and significant at a 10 per cent level of significance. This indicates that the GDP of India plays a positive and significant role in attracting FDI inflows. This implies that with a one per cent improvement in GDP, the FDI inflows tend to increase by 0.035 per cent at an increasing rate.

The regression coefficient of Trade (-0.059) and exchange rate (-717.367) are negative and significant, which shows that with a 1 per cent increase in Trade and exchange rate, the inflows of FDI in India will decrease by 0.059 per cent and 717.367 per cent respectively. The impact of inflation on FDI in India is positive (817.8), but the insignificant p-value does not support the argument.

**CONCLUSION**

Foreign direct investments are made from one country to another with a variety of expectations. The growth of the Indian economy is significantly influenced by foreign direct investments. Foreign direct investments can affect an economy in both positive and negative ways. Most of the time, it promotes economic expansion. Employment opportunities are increased by FDIs. With the aid of foreign reserves, the local currency is also strengthened. However, there are also a lot of negative impacts of Foreign Direct Investment on economic growth. Foreign direct investments cause the domestic producers' level of competition to decline. on the other hand, FDI concentrated on the country's growth aspect and does not take the country's development into account. The empirical analysis clearly demonstrated that foreign direct investments in India had a considerable impact on gross domestic product. Simple regression analysis has shown that changes in foreign direct investments account for the majority of variations in the gross domestic product. There are numerous factors which influence the direction of FDI inflows in India. The size of the market, the host nation's monetary and fiscal policies, socioeconomic conditions, managerial expertise and technology, financial or marketing strength, low salaries for skilled labour, human development, and GDP growth all impact foreign direct investment. A nation's FDI determinants may change over time. Following are the Some finding of the Study are:

1. The value of the coefficient of determination R2 explains that near about 95% of variation in FDI inflows in India can be explained by Trade, Population, Exchange Rate, Inflation and GDP while the remaining 5 per cent variation in FDI inflows is explained by other factors which are not included in the model.
2. The analysis reveals that the population of India (0.779) is the most important variable in attracting FDI inflows in India which means the demand for the product or services is high in the country (Sulaiman, 2016) & (Tiwari & Mutascu, 2011), followed by inflation (0.087) and GDP (1.299) supported our study result by other studies (Jadhav,2012), Erel, Liao & Weisbach, (2012).
3. other independent variables such as trade (- 0.720), and exchange rate (-0.379) have an inverse impact on FDI inflows in India. Multinational companies may be less inclined to invest in indigenous industries as a result of increased imports brought on by trade liberalization. In such circumstances, Foreign Direct Investment may decrease if businesses choose to export to domestic markets rather than make local investments.
4. High exchange rates will decrease the return on foreign investment, boost foreign output, and cause economic distortions in the host nation. Due to volatility, a negative correlation between the exchange rate and the flow of foreign capital is typically predicted; however, the present results indicate a positive correlation between India's FDI and the exchange rate for the time period under consideration.
5. For the period 1991 to 2022, Foreign Direct Investment and Gross Domestic Product growth have a positive association (Kumar and Karthika, 2010) also support the study.
6. As a result, it can be said that, altogether, the five explanatory variables used for the current study have provided sufficient explanation for FDI inflows to India. all pairings of independent variables have correlations that are less than 0.75, indicating that the analysis is not multicollinear except for exchange rate and population and GDP and exchange rate.

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