

FDI and Its Impact on Economic Factors(An empirical study with respect to India)

Dr. Namita Srivastava

Associate professor,

ICCMRT, Indira Nagar, Lucknow

Abstract

A country's economic growth depends on the policies adapted by its government to facilitate investment, mainly in economic and industrial sector. FDI has become a key to national development strategies for almost all the countries in the world. FDI is defined as investment made to acquire lasting interest in enterprise operating outside the country of the investor.

FDI has played its role in rapid economic growth of Southeast Asian countries. India has embarked on ambitious plan to emulate the success of her neighbors to east and is trying to sell herself as a safe and profitable destination for FDI. The FDI inflow are becoming more and more vital for accelerating the desired degree of growth and development of different industrial sectors. However, the inability to retain FDI flows into the country has become a big problem and understanding the factors driving FDI inflows into a country and their impact on a country's economic development is of significant. The paper studied the level of FDI and its relation with the various economic factors like GDP, Inflation, and Unemployment rate that defines the growth for the study period. In the interim the result shows that there is strong degree of relationship between various economic indicators and FDI.

Keywords: FDI, GDP, Inflation, Sustainable development

Introduction

A country's economic growth depends on the policies adapted by its government to facilitate investment, mainly in economic and industrial sector. FDI has become a key to national development strategies for almost all the countries in the world. FDI is defined as investment made to acquire lasting interest in enterprise operating outside the country of the investor.

FDI has played its role in rapid economic growth of Southeast Asian countries. India has embarked on ambitious plan to emulate the success of her neighbors to east and is trying to sell herself as a safe and profitable destination for FDI. As a result the Indian government over the years has brought many drastic changes in the rules and regulations to improve the climate for foreign investment in India. The FDI inflow are becoming more and more vital for accelerating the desired degree of growth and development of different industrial sectors. The FDI equity inflows in March 2016 went up by 16.5 per cent to \$2.46

billion, according to data released by the Department of Industrial Policy and Promotion (DIPP). Of the FDI inflows (equity) in FY'16, services sector (including financial, banking, insurance, non-financial / business, outsourcing, R&D, courier, technology testing and analysis) attracted maximum investments of \$6.88 billion followed by computer hardware and software (\$5.90 billion), trading business (\$3.84 billion) and automobile industry (\$2.52 billion).

India is an attractive destination for foreign investors. Its huge market provides them with ample opportunities for investment. The foreigners can invest in our country in two ways either through portfolio investment or through direct investment.

Objectives of the study:

The research is conducted to achieve the following objectives-

- To develop the relationship between FDI and different socio economic factors like GDP, Employment level, Level of Literacy and price level.

Significance of the study:

The conclusions of this study will help in understanding the involvement of FDI in increasing the GDP and improving employment opportunities and level of literacy and impact on price level in the country. This could also help in policy making for the currently tabled nation-wide debate on FDI laws in India, to form an effective policy to boost employment and growth opportunities

Review of Literature:

Dr. Ali Riza Sandalcilar , 2012 in his studies reveal that Foreign Direct Investments (FDI) have a positive impact on the growth in GDP of the host-country. This study puts forward whether the relationship between FDI inflow and GDP in the region of Economic Cooperation Organization (ECO) is coherent with the theoretical expectations. In this framework, the causal relationship between FDI inflow to the ECO region and GDP will be analyzed. The data of 1995-2011 periods is used in causality analysis covering ten ECO member countries. Granger Causality Test based on error correction model and Holtz-Eakin, Newey and Rosen Panel Causality Test are applied in analysis. According to the results of the causality tests, a strong positive causality from FDI to GDP and a slightly less positive causality from GDP to FDI in ECO region have been detected. Obtained results of the study comply with the theoretical expectations.

In contrast to this, Rizvi and Nishat (2009) concluded their study of the impact of FDI on employment opportunities in India, China and Pakistan, by stating that it would not suffice to expect FDI to create a direct impact on employment opportunities in the above mentioned countries. They also suggest that in addition to FDI enhancement policies, other measures to boost employment growth should be generated.

Borensztein et al (1998), the study aims to measure the effect of FDI on economic growth in 69 developing countries in the period of 1970-79 and by using regression bound to panel data. According to the results, it has been seen that FDIs is a means of technology transfer contributing a lot to the economic growth. However, FDIs have positive effect on economic growth, when advanced technology is accompanied by capital and human capital at a certain level.

Syed Zia Abbas Rizvi, 2009 in his study shows that the growth elasticity of employment on average in the sample countries is extremely low and employment enhancing policies must be priorities. Employment growth will not occur in these three countries as a spontaneous consequence of growth in GDP. As rising formal sector unemployment especially of technical and professional manpower is becoming and increasingly important problem in all three countries.

Research methodology:

Data Set and Sample Period

The data for the multiple-regression model on FDI, employment, inflation, literacy and GDP will be obtained on an annual based frequency from the year 2000-2015. The data collected will be secondary in nature and would be taken from the database of the Reserve Bank of India and the World Bank.

Data will be analyzed on a yearly based frequency as GDP and employment are easier to analyze and would help to produce an accurate result of the impact of FDI inflows on various economic factors through the regression analysis.

The study analyzes the relationship between GDP, level of Literacy, Price level, employment level and FDI in India. The socio economic effect of FDI will be estimated in the analysis by using the model below.

$$GDP = \alpha + (FDI)$$

$$\text{Economic Growth} = \alpha + (FDI)$$

$$\text{Price Level} = \alpha + (FDI)$$

$$\text{Employment Level} = \alpha + (FDI)$$

Hypothesis

A null and alternative hypothesis will be taken for all the above mentioned regression equations, once the significance of each equation has been checked.

Equation 1

Null Hypothesis: Foreign Direct Investment does not have a statistically significant impact on Gross Domestic Product.

Alternate Hypothesis Foreign Direct Investment has a statistically significant impact on Gross Domestic Product.

Equation 2

Null Hypothesis: Foreign Direct Investment does not have a statistically significant impact on Economic Growth.

Alternative Hypothesis: Foreign Direct Investment has a statistically significant impact on Economic Growth.

Equation 3

Null Hypothesis: Foreign Direct Investment does not have a statistically significant impact price level.

Alternative Hypothesis: Foreign Direct Investment has a statistically significant impact on price level.

Equation 4

Null Hypothesis: Foreign Direct Investment does not have a statistically significant impact on employment level in India.

Alternative Hypothesis: Foreign Direct Investment has a statistically significant impact on employment level.

CUMULATIVE FDI FLOWS INTO INDIA (2000-2016):

TABLE 1--- TOTAL FDI INFLOWS (from April, 2000 to September, 2016):

1	CUMULATIVE AMOUNT OF FDI INFLOWS (Equity + 'Re-invested earnings' + 'Other capital')		US\$ 453,183 Million
2	CUMULATIVE AMOUNT OF FDI EQUITY INFLOWS (excluding amount remitted through RBI's NRI Schemes)	Rs. 1,640,000 Crore	US\$ 310,137 Million

Source: FDI Statistics, Department of Industrial Policy & Promotion, Ministry of Commerce & Industry, Government of India, 2016.

Table 1 shows the amount of FDI inflows from April, 2000 to June, 2016. It shows the cumulative amount of FDI Inflows both in terms of Crore and in US \$ million.

There is sum of equity inflows, reinvested earnings and other capital. Cumulative amount of inflows of 453,183 in US \$ million. Other than this, cumulative FDI equity inflows which excludes amount remitted through RBI's -NRI schemes are 1,640,000 in Crore and 310,137 in US \$ million.

Data analysis and Interpretation

Relation between FDI and Price level

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.797 ^a	.635	.607	1.79965

a. Predictors: (Constant), FDI

The above table shows the strong positive correlation between the FDI and Price level during the period of study..

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	73.176	1	73.176	22.594	.000 ^a
	Residual	42.104	13	3.239		
	Total	115.279	14			

b. Dependent Variable:
PRICELEVEL

The above table indicates the coefficient of correlation between the FDI and Price level. Multiple R² is 0.635. This shows that about 63.5 % of variance of inflation is accurate by the FDI and remaining 36.5 % of variance with inflation is attributed to other factors. Hypothesis is tested by applying Anova test and calculated value F-value is more than table value indicate that null hypothesis is rejected and concluded that there is significant relationship between FDI and Price level.

Relation between FDI and Unemployment rate

Unemployment rate in India and other countries is defined as the number of unemployed people as percent of the labor force. The labor force includes the people who are either employed or unemployed, i.e. who don't have a job but are actively looking for one. The labor force does not include people who are not looking for work, children, and the retired. The unemployment rate seldom declines below 4-5 percent even during boom times. There are always people who move between different sectors of the economy or between cities. When the economy goes into recession, then unemployment can reach much higher numbers.

Model Summary

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	.675 ^a	.455	.413		.24306

a. Predictors: (Constant), FDI

The above table shows the strong positive correlation between the FDI and Unemployment rate during the period of study.

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.641	1	.641	10.856	.006 ^a
	Residual	.768	13	.059		
	Total	1.409	14			

a. Predictors: (Constant), FDI

b. Dependent Variable: **Unemployment rate**

The above table indicates the coefficient of correlation between the FDI and Unemployment rate during the period of study. Multiple R² is 0.455. This shows that around 45.5 % of variance of average unemployment in the country is accurate by the FDI. Hypothesis is tested by applying Anova test and calculated value F-value is higher then table value indicate that null hypothesis is rejected and concluded that there is significant relationship between FDI and Unemployment rate during the period of study. FDI may help in reducing unemployment level of developing economy.

Relation between FDI and GDP

GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources.

Model Summary

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	.837 ^a	.701	.678		18044.26239

a. Predictors: (Constant), FDI

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.924E9	1	9.924E9	30.479	.000 ^a
	Residual	4.233E9	13	3.256E8		
	Total	1.416E10	14			

a. Predictors: (Constant), FDI

b. Dependent Variable: GDP

The above table indicates the high degree of positive correlation between the FDI and GDP of the country. Multiple R² is 0.701 This shows that almost 70.1 % of variance of average GDP is accurate by the FDI. Hypothesis is tested by applying Anova test and calculated value F-value is greater than table value indicate that null hypothesis is rejected and concluded that there is significant relationship between FDI and GDP of developing economy. FDI play an important role in improving the GDP of developing economy.

Economic growth: the rate of change of real GDP

For that indicator, The World Bank provides data for India from 1961 to 2015. The average value for India during that period was 5.29 percent with a minimum of 5.24 percent in 1979 and a maximum of 10.26 percent in 2010. Economic growth in India and other countries is calculated as the percent change in the GDP from one year to the next. It measures whether production has increased or decreased, and by how much. and this changes from year to year as the economy goes through recessions and expansions. However, if an economy routinely grows at about 5 percent or more per year, this is a substantial rate of economic growth. Economic growth of 7-8 percent is extraordinary. Economic growth rankings around the world. Create and download charts for India Economic growth and other indicators with the country comparator

Model Summary

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	.176 ^a	.031	-.043		2.18617

a. Predictors: (Constant), FDI

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.995	1	1.995	.417	.529 ^a
	Residual	62.131	13	4.779		
	Total	64.126	14			

a. Predictors: (Constant), FDI

b. Dependent Variable: economic growth

The above table indicates the weak but positive coefficient of correlation between the economic growth of the country and FDI. Multiple R² is 0.031. This shows that only 3.10 % of variance of average economic growth is accurate by the percentage of FDI investment in the country and remaining 96.90 % of variance with growth is attributed to other factors. Hypothesis is tested by applying Anova test and calculated value F-value is less then table value indicate that null hypothesis is accepted and concluded that there is no significant relationship between profitability and economic growth of the developing economy. There are many other factors other than FDI that play an important role in improving the economic growth of the country.

Conclusion

FDI has a significant role in the economic development of India. The paper studied the level of FDI and its relation with the various economic factors like GDP, Inflation, and Unemployment rate that defines the growth for the study period. In the interim the result shows that there is strong degree of relationship between various economic indicators and FDI. So, it can be concluded that FDI has helped to raise the output, productivity and employment in some sectors especially in service sector. Indian service sector is generating the proper employment opportunities for skilled worker with high perks. Whereas, banking and insurance sector help in providing the strength to the Indian financial market and efficient foreign exchange mechanism in country to boost up the globalization attraction to foreign investors.

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Annexure

S.No	Years	FDI Inflow	GDP	Price level	Unemployment rate	Economic growth
1.	2000-01	4029	20007.43	3.77	4.3	3.84
2.	2001-02	6130	21752.60	4.31	4	4.82
3.	2002-03	5035	23438.64	3.81	4.3	3.8
4.	2003-04	4322	26252.19	3.77	3.9	7.86
5.	2004-05	6051	29714.64	4.25	3.9	7.92
6.	2005-06	8961	33905.03	5.79	4.4	9.28
7.	2006-07	22826	39532.76	6.39	4.3	9.26
8.	2007-08	34843	45820.86	8.32	3.7	8.61
9.	2008-09	41873	53035.67	10.83	4.1	3.89
10.	2009-10	37745	61089.03	12.11	3.9	8.48
11.	2010-11	34847	72488.6	8.67	3.5	10.26
12.	2011-12	46556	83916.91	9.30	3.5	6.64
13.	2012-13	34298	93888.76	10.92	3.6	5.62
14.	2013-14	36046	104728.07	6.37	3.6	6.64
15.	2014-15	44877	113550.73	5.88	3.6	7.24