
A STUDY ON THE IMPACT OF FDI ON MACRO ECONOMIC PARAMETERS (GDP, GCF, EXP & EMP) WITH REFERENCE TO THE GUJARAT STATE

Mr. Rupesh Solgaonkar¹,

Research Scholar, Doctorate Program,
Devi Ahilya Vishwavidyalaya, Indore, India

Dr. Deepak Dubey²,

Assistant Professor,
Indore Christian College, India

CMA. Dr. Niranjana Shastri³

Associate Professor,
Prestige Institute of Management and Research

Abstract

India has started emerging economically especially after early 1990s. After attaining political independence in 1947, Indian economy generally followed an inward looking closed economic policy. The economy was generally an agrarian in nature and the inequality of income & wealth was very wide. In order to develop economy, the Nehruvian Socialist ideology gave thrust on growth with equity. Thus, Indian planning in the initial decade of 1950s and 1960s have implemented inward looking support substituting was coupled with the development of the public sector undertakings. The role of FDI in the growth process has been a burning topic of debate in several States of India. FDI is a vital ingredient of the globalization efforts of the world economy. The growth of international production is driven by economic and technological forces. It is also driven by the ongoing liberalization of Foreign Direct Investment (FDI) and trade policies. This study is aimed at the impact of FDI on GDP, GCF, EXP and EMP in Gujarat State. Based on the secondary data, the study has applied multiple regression to determine the impact of FDI on these macroeconomic parameters.

Keywords: FDI Inflow; Export Performance (EXP); Gross Capital Formation (GCF) Employment (EMP);Gross Domestic Product (GDP)

Introduction:

Broadly speaking there are two types of foreign investments namely foreign direct investment and portfolio investment. Foreign direct investment relates to such investment through which the non resident investor acquires an effective voice in the management of the enterprise concerned. Generally it is in the form of starting a subsidiary, acquiring a stake in existing firm or starting a joint venture in the foreign country. However, it is different from portfolio investment. Portfolio investment does not impart any long term controlling and lasting interest to investors. It refers to investment in public sector bonds and other types of bonds and corporate equities abroad. Hence, various factors such as long term political stability, government policy, industrial and economic prospects may influence the direct investment decision, but portfolio investments can be easily liquidated.

Factors Attracting Foreign Direct Investment in Gujarat

- The state provides extensive network of railways.
- Gujarat has the highest number of airports in the country.
- The state provides excellent network of roads.
- Professional services to the investors are provided in Gujarat.
- The state is highly industrialized.
- Location wise, Gujarat has a strategic location providing easy access to the African, western, and Middle East markets.
- Skilled manpower is abundantly available in Gujarat.

Industries Attracting Foreign Direct Investment in Gujarat are: Oil and gas ; Infrastructure; Food processing industries; Information technology; Gems and jewellery; Biotechnology; Chemicals and Textiles. The regional office of Reserve Bank of India in Ahmedabad received US\$ 970.3 million as foreign direct investment for the state during January 2000 to December 2006. The total percentage of foreign direct investment that the regional office of Reserve Bank of India in Ahmedabad received came to 3.7% out of the total foreign direct investment in India during this period.

It has been reflected from the table that in Gujarat, GDP is significantly increased from 2001 to 2004 but declined from the year of 2005 and again it was increased in 2009-10 by 17.30% but now the rate of growth was declined till now (2013-2014). In 2005-06 it was increased and somehow fluctuated in the consecutive years. In 2007-08 the GDP was on rise due to the growth of MSMEs units.

Further it has been explored that the rate of export performance is quite considerable to Gujarat in which the share of Gujarat 24.6% in the total exports of India is remarkable. Gujarat's exports as a percentage of GDP were nearly 13.5 times in the year 2001-02. Afterwards it has shown increasing

trend in both the states with due course of time. Gujarat has relatively improved its exports performance. GCF is the creation of productive assets that expand an economy's capacity to produce goods and services. Private savings facilitate capital formation by allowing resources to be diverted to corporate investment rather than individual consumption (Scott, 2003). It is very crucial macroeconomic parameter which determines the growth of an economy.

It is suggested that FDI is seen as a powerful tool of export promotion for the Indian states. Several studies have also confirmed that FDI through multi-national corporations (MNCs) have greater advantages over state level firms in respect of export performance. Large firms have many intangible assets in the form of technology, skills, brand names, advertising strategies, globally established marketing channels and experience of operating in national as well as international markets.

Rationale of the study:

Investment, or creation of capital, is an important determinant of economic growth. In general, investment may lead to creation of physical capital, financial capital and human capital. Foreign investment can reduce domestic savings gap. Hence, notwithstanding the domestic savings gap, economic growth can be increased in an open economy with inflow of foreign investment. The foreign investment in India would stimulate the domestic investments. The existing studies are also limited only to study the micro-impact of FDI on various sectors. Most of the literature is available in the form of research papers. It is therefore very essential to analyse expected theoretical relationship between FDI and these macro economic variables before doing empirical investigation regarding their relationship. This a study of Gujarat provides an adequate opportunity to study cause and effect relationship of FDI inflows and various macroeconomic parameters measuring the growth and development of the region.

Objectives of the study

- 1) To study the recent trends of FDI in Gujarat
- 2) To examine the impact of FDI on GDP, GCF, EXP and EMP in Gujarat
- 3) To suggest various measures to enhance the FDI in Gujarat state.

Review of literature

According to the study of **Nayak, S. & Yogesh M. Keskar (2015)** the growing integration of economies and societies of various countries around the world has been one of the most debated topics during the past years. To improve the economic conditions and development pace of the country various country have used the tool of Foreign Direct Investment (FDI). The liberalization of

the foreign direct investment policies in India in early 1990s had played a major role in the growth of FDI flow in India. Though there are many factors affecting city growth and city form, in this paper the impact of FDI over the city form with a case of Hyderabad city has been discussed.

M. Kaur & R. Sharma (2015) in their study 'Impact of Foreign Direct Investment on Macro Economic Parameters of India: An Empirical Analysis' revealed that foreign direct investment (FDI) is considered to be one of the important factors, which leads to the globalization of an economy. The present study analyses the impact of FDI on some macroeconomic indicators in India. Explanatory variables used in the study are Gross Domestic Product (GDP), Foreign Exchange Reserves (RES), Gross Capital formation (GCF), Exports (EXP), Employment (EMP). The technique of Co-integration has been applied to investigate the impact of FDI on the economy of India.

Tomar et. Al., (2014). This research is divided at three levels – At first level macro economic variables which put an impact on exports from any country are selected. The selected variables are Gross Domestic Product (GDP), FDI inflows, Exchange Rate, Per Capita Real Income and Inflation. At second level an econometric model has been designed to predict the impact of selected macro economic variables of Indian economy on the export of China and the impact of selected macroeconomic variable of Chinese economy on the export of India. The current research would enable us to predict the export of both China and India and would help in formulating export strategies of the country.

Jamal et a., (2014) The study suggests that attracting FDIs may be an appropriate strategy to generate future economic growth and enhances the productive capacity of the country to remain on the path of sustainability, so long as the country is able to maintain her threshold level in terms of macroeconomic conditions. This further implies that continuous improvements of the local macroeconomic conditions including socio-political stability are imperative to the country. The findings further underline the importance of national policies to focus on local diffusion of knowledge presumably embodied in FDIs to ensure greater productive capacity of the economy and hence sustaining the welfare impacts of FDIs.

Sisili. T (2013) in study 'FDI and its Determinants of India', revealed that Foreign direct investment (FDI) is recognized to contribute to benefits of economic and social development. Foreign direct investment (FDI) is an integral part of an open and effective international economic system and a major catalyst to development. FDI has become an increasingly more important factor of economic growth. In the existing empirical studies, the following model has been used to explain the determinants and its impact of SAARC nations. This research study has tried to find the influence of determinants and its influence on FDI of India.

Pillai, K. R., & Rao, M. S. (2013). The study analyses the panel data of various determinants of FDI inflow to India. The research considered those variables, which had been identified by the previous studies on FDI. The quarter-on-quarter data from the year 2000 to the year 2010 were obtained pertaining to twelve potential determinants of inward FDI. The study identified that transnational attributes constitute the major factor of FDI inflow to India. It was also understood that inward FDI is directly and greatly elastic to market size of the host country.

S. Ray (2012), in her study ‘Impact of Foreign Direct Investment on Economic Growth in India: A Co integration Analysis’, anchored the role of FDI in the growth process has been a burning topic of debate in several countries including India. It is an attempt to analyze the causal relationship between Foreign Direct Investment (FDI) and economic growth in India and tries to analyze and empirically estimate the effect of FDI on economic growth in India, using the co-integration approach for the period, 1990-91 to 2010-11.

Sudarsan, P. K., & Karmali, D. (2011). The service exports of our country have been increasing at a rapid pace in recent years. The study showed that rate of growth of service exports is much higher than that of rate of growth of exports in trade in goods, in recent years. The study also revealed that there is a structural change in India's trade in services and the share of miscellaneous services, which includes software services, is on an increase over the years. The major conclusions of the study based on static and dynamic models are: (i) The factors determining the trade in services in India are (a) trade in goods and (b) value of service sector in GDP, (ii) Trade in services show dynamic relationship only with the value of service sector GDP, and, (iii) the value of service sector GDP has a substantial influence in determining trade in services in the long-run.

Research Methodology:

For the analysis of data, the researcher has used step wise regression analysis. FDI has been taken as independent variable and GDP, EXP, EMP and GCF have been taken as dependent variables.

Table 1: Model Summary^b

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	.962 ^a	.926	.884	1.69150	.926	21.993	4	7	.000	1.498

a. Predictors: (Constant), FDI

b. Dependent Variables: EMP, GCE, GDP, EXP

Table 2: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	251.699	4	62.925	21.993	.000 ^b
	Residual	20.028	7	2.861		
	Total	271.727	11			

a. Dependent Variables: EMP, GCE, GDP, EXP

b. Predictors: (Constant), FDI

Table 3: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics		
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF	
(Constant)	-8.179	4.278		-1.912	.097	-18.296	1.937			
1	EXP	.454	.342	.708	1.329	.225	-.354	1.263	.037	26.965
	GDP	.473	.273	.364	1.736	.126	-.172	1.119	.240	4.169
	GCF	.035	.256	.015	.137	.895	-.570	.640	.890	1.123
	EMP	.342	.445	-.003	-.004	.997	-1.053	1.049	.026	38.013

a. Dependent Variable: EMP, GCE, GDP, EXP

As shown in the tables, there is a variation between the variables under study of the Models. So, there must be some relation between the variables under study that the researcher has tried to explain with the help of the regression equation. The co-efficient are given in Table 2:- The F value is 21.993 greater than the tabulated value, so it can be inferred that the model is significant.

Four equations of these Models by step-wise regression method, which are best fitted from Table 3 : The equation 1 explains the .454 change in EXP due to change in FDI, in the same way .473 change in GDP, .035 change in GCF and .342 change in EMP due to change in FDI. The p value is less than the .05 so null hypothesis is rejected and found that there is a significant impact of FDI on GDP, GCF, EXP and EMP.

Results and Analysis

- From the above given inferences and the fact that the growth rate of GDP in Gujarat has increased from 14.68% in 2008-09 to 12.48% in 2013-13. Hence, it has been depicted from the fact that the rate of growth is declined in 2011-2013 but from 2001-2007 is has been continuously increased. Similarly when the export performance is concerned in Gujarat State it is absolutely significant. Such case with all the variables which determine the impact of FDI on Export, Employment and GCF.
- The study used the regression analysis for findings the dependence of GDP, EXP, EMP and GCF on FDI has been determined statistically.

- Values of coefficient indicate the change in dependent variable due to unit change in independent variable. Values of adjusted R-square shows the percentage explained variation in dependent variable caused by the independent variable. X coefficient in Gujarat has positive impact of FDI on all the variables of the study. It means that any increase in FDI will lead to raise the dependent variables. It has been shown from the results that all the variables have significance F in both the States the significance of the Model.

Conclusion:

This study has focused on macroeconomic parameters of FDI in India during the last twelve years, determinants and need of FDI in Gujarat. This State has managed to show a positive GDP growth even during the aforesaid period. It has comparatively performed well, then the average growth rate of Indian GDP. This State has all the facilities such as fine infrastructure, potential markets, abundant labour, availability of natural resources, and at last the economic and trades policies which has been favouring FDI. Positive and significant impact of FDI on macroeconomic parameters such as; GDP, GCF, EXP & EMP has been found in Gujarat. This is due to the reasons that FDI enhances economic growth by promoting technology, increasing exports, production capacity, income etc. The study has found that in recent scenario in Gujarat, more growth, high intensive manufacturing industries as well as optimum utilization of resources, market structure, skilled workforce and implementation of reforms have been observed for the development.

Reference:

1. Arya, K.S., "Analysis and Simplification of Three-Dimensional Space Vector PWM for Three-Phase Four-Leg Inverters," IEEE Transactions on Industrial Electronics, vol. 58, pp. 450-464, Feb 2011.
2. Berto, M.C. and Vruce K., "Implementation of a Fuzzy PI Controller for Speed Control of Induction Motors Using FPGA," Journal of Power Electronics, vol. 10, pp. 65-71, 2010.
3. Newmark, P. "Common Mode Circulating Current Control of Interleaved Three-Phase Two-Level Voltage-Source Converters with Discontinuous Space-Vector Modulation," 2009 IEEE Energy Conversion Congress and Exposition, Vols 1-6, pp. 3906-3912, 2009.
4. Zed, Yin Hai. "A Novel SVPWM Modulation Scheme," in Applied Power Electronics Conference and Exposition, 2009. APEC 2009. Twenty-Fourth Annual IEEE, 2009, pp. 128-131.
5. Aggarwal, Aradhana (2002) 'Liberalization, Multinational Enterprises and Export Performance: Evidence from Indian Manufacturing', The Journal of Development Studies, Vol.38 (3), pp.119-137.
6. Ahluwalia, M.S. (2002) 'Economic Reforms in Indian since 1991: Has Gradualism worked?' Journal of Economic Perspectives, Vol.16(3), pp.67-88.
7. Andersen P.S and Hainaut P. (2004): "Foreign Direct Investment and Employment in the Industrial Countries", <http://www.bis/pub/work61.pdf>.

8. Mathiyazhagan, M.K. (2005), "Impact of Foreign Direct Investment on Indian Economy: A Sectoral Level Analysis", ISAS Working Paper No. 6, Institute of South Asian Studies, Singapore.
9. Guha, A. and Ray, A.S. (2000), "Multinational Versus Expatriate FDI: A Comparative Analysis on the Chinese and India Experience", <http://icier.res.in/public/ashok>.
10. Jallab, M.S., Gbakou, M.B.R. and Sandretto, R. (2008), "Foreign Direct Investment:
11. Macroeconomic Instability and Economic Growth in MENA Countries", Working Paper No. 08-17, Groupe d'Analyse et de Théorie Economique (GATE), Centre national de la recherche scientifique (CNRS), University Lyon.
12. Mamata, T. (2010), "Impact of Global Financial Crisis on FDI Flows in India – A Special Reference to Housing Sector", International Journal of Trade, Economics and Finance, Vol. 2, No.1, PP. 32-37.
13. Rao, K.S.C., Murthy M.R. and Ranganathan, K.V.K, (2005), "Foreign Direct Investment in Post Liberalisation Period-An Overview", Journal of Indian School of Political Economy, Vol. 11, No. 4, PP. 233-241.

Official Reports:

1. Central Statistical Organization (CSO), Ministry of Statistics and Programme Implementation, Government of India.
2. ICICI Research Centre.org-EPWRF Database Project. Indian Institute of Foreign Trade. IIFT (1977), New Delhi.
3. International Monetary Fund, Balance of Payments Yearbook, 2005.
4. Ministry of Finance Department of Economic Affairs, Government of India.
5. RBI Bulletin (2008) Reserve Bank of India, www.rbi.org.in