ROLE OF FOREIGN DIRECT INVESTMENT IN THE DEVELOPMENT OF SELECTED INDUSTRIES IN INDIA

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Abstract: *FDI is one of the critical drivers of economic growth and is a major source of non debt finance for the economic development of India. Foreign companies invest in India with the purpose to take advantage of relatively lower wages, special investment privileges such as tax exemptions, etc. The achievements which accrue to our country due to foreign investments are technical know-how and greater employment for people. The favorable policy regime and robust business environment of India has also ensured that foreign capital keeps flowing into the country. The government has also taken many initiatives in recent years such as relaxing FDI norms across sectors such as defense, PSU oil refineries, telecom, power exchanges, and stock exchanges, among others. This paper attempts to examine the impact of FDI on the performance of selected sectors in India. The period of study under the current research is from year 2001-2017. The FDI (sector-wise) data has been collected from the government website of Department of Industrial Policy and Promotion (DIPP) and similarly the index value of selected sectors over the same period has been collected from Bombay Stock Exchange. Correlation and simple regression technique has been employed for the purpose of data analysis. The results of the study suggest that there is a significant impact of FDI on the performance of selected sectors in India. Also, same is being supported by available literature.*

Index Terms - Foreign direct investment, Bombay Stock Exchange, regression, Index value, PSU.

I. INTRODUCTION

Foreign Direct Investment (FDI) is a kind of investment that involves the injection of foreign funds into an enterprise which operates in a different country of origin from the investor. FDI has a significant role to play in the development of India's economy as it is the major source of fiancé for them. Foreign companies make investment directly in private Indian businesses which are growing at a fast pace to take benefits of cheaper wages and changing business environment of India. FDI has steadily increased in India since liberalization and Manmohan Singh and P.V. Narasimha Rao were the ones who brought FDI in India and as a result generated more than one crore jobs. As per Department of Industrial Policy and Promotion (DIPP), the total FDI investments in India during April-December 2017 stood at US$ 35.94 billion indicating the fruitful results of government's effort to improve ease of doing business and relaxation in FDI norms. It was also announced by economic advisor of South Asia, Mr. Anil Sinha that the Indian impact investment may grow on an average by 25 per cent annually by 2025. The major recent highlight in India, September 2017, with respect to FDI is that the Indian government has joined hands with Japan for infrastructure development in India's north-eastern states. The recent survey conducted by Emerging Market Private Equity Association (EMPEA) suggests the road ahead for India and says that our country has become the most attractive emerging market for global partner's investment for the coming 12 months. FDI in India is not limited to only few sectors but almost all the sectors are attracting the foreign investment. The government of India already has a defined FDI policy framework for each sector which is being liberalized continuously post 1991 reforms. The current paper discusses the role of FDI in 3 major growing and potential sectors of Indian economy, namely Information Technology, Automobile and Metal & Mining.

1.1 Information Technology: India accounts for approximately 55% market share of the US global services sourcing business in the year 2017-18. Indian IT and ITeS companies have developed around more than 1,000 Global Delivery Centres in across 80 countries around the world. India is highly cost competitive in providing IT services and help in saving around 60-70 percent of the cost of sourcing countries. This Unique Selling Proposition (USP) of our country has made us digital capabilities hub of the world with around 75 per cent of global digital talent present in the country. Government of India has also taken number of initiatives to promote IT and ITeS sector in India by exploring new opportunities in various sectors such as providing BPO service from home, digital healthcare and agriculture to achieve the target of making India a US$ 1 trillion digital economy.

1.2 Automobile: The automobile sector in the Indian industry is one of the high performing sectors of the Indian economy. This sector primarily has made India a prime destination for many international players in the automobile industry who wish to set up their businesses in India. The automobile industry in India is growing by 18 percent per year on an average. The automobile sector in India was opened up to foreign investments in the year 1991 and has been continuously growing since then which has resulted in attraction of 100% Foreign Direct Investment in the automobile industry in India. The industry accounts for 7.1 per cent of the country's Gross Domestic Product. The Two Wheelers segment is the leader of the Indian Automobile market and account for 80

per cent market share. All this is happening because of growing middle class and a young population in our country. In addition to that, the growing interest of the companies in exploring the rural markets further aided the growth of this sector.

1.3 Metal & Mining: This industry is very promising and is the core of many other industries of Indian economy. Rise in infrastructure development and automotive production are driving growth in metals and mining sector. Power and cement industries are also aiding growth in this sector. Moreover, demand for iron and steel is set to continue, given the strong growth expectations for the residential and commercial building industry. Government of India has taken major initiatives for the development of this sector and few of them have been explained as, a) Shri Piyush Goyal, the Union Minister of State for Power, Coal, New & Renewable Energy and Mines, launched the Mining Surveillance System (MSS) in New Delhi to establish a regime of responsive mineral administration by curbing instances of illegal mining activity though automatic remote sensing detection technology. b) National Steel Policy has also been established in 2017 with the mission to provide self- sufficiency in steel production by providing policy support and guidance to private manufacturers, MSME steel producers, CPSEs and encouraging capacity additions.

II. LITERATURE REVIEW

Siddiqui & Ahmed (2017) obtained results through empirical analysis which indicate that FDI causes and impacts growth at the sectoral level while growth causes FDI but does not have an impact on FDI inflows. Therefore, the study suggested that the Indian economy should focus on attracting FDI in diverse fields unlike the present trend where service sector has been receiving maximum FDI. Lavanya et.al. (2017) study concluded that FDI has shown significant growth post liberalisation period with an observation that FDI has ensured the absolute shift in favour of service sector but a steep fall in the share of manufacturing sector was observed at the same time. However, the observed pattern and trend of FDI in India is in line with the trend of change in the structure of FDI inflows in the other developing countries and even the world. Archana (2017) examined the impact of FDI and FTA on Indian industries using panel data model and SMART model. It was found that there are spillovers of R&D in sectors such as, trading, transport, industrial machinery etc. and positive impact of FDI on domestic investment in sectors such as hotel & tourism, transport, electronics and electrical and chemicals. To see the impact of FTA simulation was carried out and it was found that where there are spillovers due to FDI, a reduction in tariff under the FTA would improve the social welfare and also increase the trade flows in terms of trade creation and trade diversion. Samal & Raju (2016) observed that Trade, GDP, Reserves GDP, Exchange rate, are the main determinants of FDI inflows to the country and have a profound impact on the inflow of FDI in India. Vijaykumar Vyas (2015) in his research revealed that Computer, Software & Hardware and Drugs & Pharmaceuticals sectors attracted the major FDI inflows in India. Also the service sector in India witnessed a rise in output, productivity and employment. Indian banking system also strengthened and developed the great foreign exchange system in our country. Teli (2014) based his research on analysing the growth, trends and patterns of FDI inflow in order to make projections of FDI in India. He found the positive trend in growth of Indian economy over the period from 1991-2012. Gross inflows of FDI include 63% share of direct investment in equity and 37% share of portfolio investment. However, Opening FDI in multi-brand retailing has mixed consequences on retail in India. Shrivastava et.al. (2011) study targeted the manufacturing sector in India and concluded that in the post liberalization age, India has taken in a huge amount of FDI in a variety of sectors. The large market for computer hardware in India, coupled with the ease of use of skilled labor force in this sector, has boosted the FDI inflow. Soaring expansion prospects, in terms of increased utilization in India as well as increasing demand for exports, are expected to lead to even more FDI. Rajalakshmi & Ramachandran (2011) research was based on the automobile industry and it concluded that FDI has a huge growth in this sector post liberalization and also there is a newfound success and confidence amongst domestic manufacturer due to changing scene of automobile sector over the past 5 years. The two factors that are having their impact felt in this segment are the growing buying power of the middle class and the low-interest EMI schemes. Mathiyazhagan (2005) study showed that FDI has helped to raise the output, productivity and export in some sectors; however, the results of PCONT have shown a very minimal relation in these variables with the FDI. Therefore they suggested a judicious policy decision towards FDI at sectoral level.

III. OBJECTIVES OF THE STUDY

3.1 To analyse the role of Foreign Direct Investment in the selected sectors of India namely, Information Technology, Automobile and Metals & Mining.

3.2 To study the relationship between FDI (sector wise) and the performance of selected sectors in India with the help of BSE sectoral indices.

3.3 To study the impact of FDI (sector wise) on the performance of selected sectors in India with the help of BSE sectoral indices.

IV. SCOPE OF THE STUDY

The study is focussed on analyzing the performance of growing sectors of India and the selected sectors are Information Technology, Automobile and Metals & Mining. The period of the study covers 17 years from 2001-2017. Further in the study BSE sectoral indices have been adopted as proxy to determine the performance for each sector under study and FDI is the Foreign Direct Investment in the selected sectors in India.

V. HYPOTHESIS

$H0_1$: There is no relationship between FDI in India and BSE Information Technology indices.

Ha_1: There is a significant relationship between FDI in India and BSE Information Technology indices.

$H0_2$: There is no relationship between FDI in India and BSE Automobile indices.

Ha_2: There is a significant relationship between FDI in India and BSE Automobile indices.

$H0_3$: There is no relationship between FDI in India and BSE Metal & Mining indices.

Ha_3: There is a significant relationship between FDI in India and Metal & Mining indices.

$H0_4$: There is no impact of FDI in India on BSE Information Technology indices.

Ha_4: There is a significant impact of FDI in India on BSE Information Technology indices.

$H0_5$: There is no impact of FDI in India on BSE Automobile indices.

Ha_5: There is a significant impact of FDI in India on BSE Automobile indices.

$H0_6$: There is no impact of FDI in India on BSE Metal & Mining indices.

Ha_6: There is a significant impact of FDI in India on Metal & Mining indices.

VI. RESEARCH METHODOLOGY

6.1 Methodology for Data Collection

The study relied on secondary sources and data has been acquired by conducting an extensive research into relevant books, magazines, newspapers, journals, research papers, etc. for the purpose of data collection. Sources of data precisely were various Indian websites namely India Brand Equity Foundation (IBEF), Department of Promotion & Policy (DIPP) and Bombay stock exchange.

The data for independent variable FDI has been collected from Department of Promotion & Policy (SIA newsletter) for a given period and the data for dependent variable, that is, sectoral indices data is collected from BSE.

Table 1: Descriptive Statistics

Year	FDI Inflow (In Rs Crores)	Information Technology	Automobile	Metal & Mining

2001	10,733	1613.74	755.55	1073.03
2002	18,654	1678.86	1015.62	1740.2
2003	12,871	2073.05	2533.79	5428.43
2004	10,064	2621.93	2836.39	6210.37
2005	14,653	3742.74	4256.45	6485.19
2006	24,584	5272.56	5518.5	9039.63
2007	56,390	4529.59	5667.45	20020.22
2008	98,642	2227.96	2444.71	5214.35
2009	142,829	5186.35	7435.83	17399.22
2010	123,120	6824.82	10235.41	17595.86
2011	97,320	5751.93	8143.65	9293.17
2012	165,146	5684.08	11426.21	11070.63
2013	121,907	9081.78	12258.83	9964.29
2014	147,518	10583.98	18630.84	10752.69
2015	189,107	11061.31	18519.08	7397.96
2016	262,322	10176.05	20257.43	10109.34
2017	291,696	11277.81	26751.2	14939.28

Source: Bombay Stock Exchange India

6.2 Techniques used for Data Analysis

The methodology has predominately taken a quantitative approach. This implies that all of the items and all of the variables in our research are numerically represented. The data collected has been analyzed using correlation and regression analysis with the help of SPSS tool. Correlation is the statistical measure used to describe the degree to which one variable is linearly related to another or the extent to which two or more variables fluctuate together and Regression is the technique for determining the statistical relationship between two or more variables where a change in dependent variable is associated with or depends on the change in one or more independent variables.

VII. RESULTS AND DISCUSSION

7.1 Correlation Analysis – Relationship between FDI and respective Sectoral index.

Table 2: Correlation between FDI and Sectoral indices

	Information Technology	Automobile	Metal & Mining
Pearson Correlation Coefficient	.845	.922	.462
Sig. (1-tailed)-p value	.000	.000	.062
N	17	17	17
Relationship	High positive	Very high positive	Low positive

Table 2 clearly shows that FDI has a high positive correlation with BSE IT index and BSE Automobile index and the degree of association is 0.845 and 0.922 respectively. Therefore, we conclude that there is statistically significant relationship between FDI and performance of IT sector as well as between FDI and performance of Automobile sector. On the other hand, the degree of association between FDI and BSE Metal & Mining index is 0.462 depicting low positive correlation.

7.2 Regression Analysis – Impact of FDI on performance of respective sectoral index.

a) Information Technology

Table 3: Model Summary (Information Technology)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.845	0.713	0.694	1902.13978

Table 4: Coefficients (Information Technology)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2391.811	729.829		3.277	0.005
	FDI	0.033	0.005	0.845	6.109	0.000

Table 3 depicts that 71.3% of variability in dependent variable (IT index) is explained by independent variable (FDI inflow).

Based on Table 4, the equation for the regression line can be formed as:

IT index = 2391.811+0.033(FDI)

Since the sig.-p value (=0.000) for FDI is < 0.05, thus the alternate hypothesis is accepted and we conclude that FDI has significant impact on the performance of IT sector indices.

b) Automobile

Table 5: Model Summary (Automobile)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.922	0.850	0.840	3069.09253

Table 6: Coefficients (Automobile)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		

1	(Constant)	907.237	1177.576		0.770	0.453
	FDI	0.080	0.009	0.922	9.236	0.000

Similarly, Table 5 depicts that 85% of variability in dependent variable (Automobile index) is explained by independent variable (FDI inflow).

Extracting values from Table 6, the equation for the regression line can be formed as:

Automobile index = 907.237+0.080(FDI)

Since the sig.-p value (=0.000) for FDI is < 0.05, thus the alternate hypothesis is accepted and we conclude that FDI has significant impact on the performance of Automobile sector indices as well.

c) Metals & Mining

For Metals & Mining sector as we have not obtained any statistically significant relationship between FDI and performance of metals & mining indices therefore regression analysis has not been performed.

VIII. FINDINGS

Results reveal that Foreign Direct Investment has significant relationship with the performance of IT sector and Automobile sector whereas the results are not that significant with respect to metals & mining sector. Therefore, Regression analysis has been performed further on the given variables in order to find out the exact impact which FDI has on IT and Automobile sector respectively. There is less involvement of FDI in metals & mining sector that's why the results of correlation are not positive. The funds invested by the foreign investors in metals sectors are not enough to have a positive impact on the Indian economy. The favourable results of regression analysis show high level of growth prospect for Indian market with respect to IT and Automobile sector. The available Literature on the given topic also supports the above findings.

IX. CONCLUSION

The research work concludes therefore that foreign direct investment (FDI) has a great impact on the Indian economy with respect to selected sectors. This research is an extension of many previous researches in the same context but this research aims to specifically cover the major players of Indian economy on a broader view by studying the selected sectors of Indian Economy alongside the performance of their stock in Indian stock market. This study made us able to gather information around actual trends and performance level of each sector and their potential for future growth and sustainability. As a result, we could extrapolate the drawn conclusions and inferences at the broader level of Indian economy and comment about the performance of our country.

The existing literature shows that there are limited studies that have actually concentrated and researched from point of view of establishing a link between FDI inflow and performance of different sectors through sectoral indices on the BSE. Therefore, this study has tried to fill the gap in the literature by analyzing a broader view of FDI in India and its relationship with the Indian stock market. These findings will further suggest a key policy recommendation for India. It is further suggested that policies to attract more FDI should be accompanied by market-friendly regulations, especially stock market regulations such as mechanisms to improve governance and protect investors. This will allow our country to maximize the benefits of the spill over effects of FDI.

X. REFERENCES

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