AN ANALYTICAL STUDY OF FDI IN MANUFACTURING SECTOR OF INDIA

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ABSTRACT

Recently India has become the 6th largest Economy of the world as a result; India has become one of the most promising destinations for foreign direct investment (FDI) inflows. Service sector is getting a larger chuck of cake, as it is highly attractive, over a few decades the contribution of service sector to GDP has substantially increased, Service sector have become a key strength of Indian economy but to compete with western economies we have to improve our manufacturing sector. Major structural policy reforms which have worked as panacea for the manufacturing sector. This way manufacturing sector has become lucrative investment option. Demonetization and introduction of Goods and Services Tax might seem ineffective in short run but they have long term implications over the Economy. This research is based on the same phenomenon of FDI importance in any economy. The primary objective of the research is to find whether there is any relationship between FDI inflows & manufacturing sector growth and to analyze the trend of FDI in India. The research is based on the secondary data and Linear Regression Analysis has been used to establish the relationship between FDI inflows and Manufacturing sector growth.

Keywords: FDI, GDP, Manufacturing sector.

Introduction

India is known for its diversity and rich culture, but over a few decades India has been recognised as one of the major forces which contributes a major part of the global demand due to its high demographic dividend, if India wants to ripe the benefits of its demographic dividend it has to focus more on self sufficiency and this can be observed in the recent shift in the policy framework of India. The Government of India has focused on self sufficiency, Make in India is an example of major shift in the policy dimension, which primarily focuses to boost Manufacturing sector through FDI, India is lagging behind in the manufacturing sector when compared to its closest rival China, China’s manufacturing sector contributes approximately 30% towards its GDP where as Indian manufacturing sector contributes mere 15% roughly towards GDP (As per world bank data).

Industrial sector contributes 29.02% with GVA of Rs. 39.90 lakh crore. While, Primary Sector of the economy i.e. Agriculture and allied sector contributes 17.32% and its Gross Value Addition is around Rs. 23.82 lakh crore at the current prices in the FY 2016-17. Sector wise bifurcation of Indian GDP:

1. **Agriculture & Allied Sector :**This sector includes forestry and fishing also. This sector is also known as the primary sector of the economy. At the time of Indian independence this sector had biggest share in the GDP of India. But slowly and gradually its contribution kept on declining and currently it contributes to only 17% of Indian GDP at current prices. A major part of the employment comes from this sector which is approximately 53% population of India.
2. **Industry Sector:** This sector includes 'Mining & quarrying', Manufacturing (Registered & Unregistered), Gas, Electricity, Construction and Water supply. It is also known as the secondary sectors of the economy. Currently it is contributing approximately 31% of the Indian GDP (at current prices).
3. **Services Sector:** Services sector includes 'Financial, real estate & professional services, Public Administration, defence and other services, trade, hotels, transport, communication and services related to broadcasting. This sector is also known as tertiary sector of the economy. Currently this sector is the backbone of the Indian economy and contributing around 53% of the Indian GDP.Services sector is the largest sector of India. Gross Value Added (GVA) at current prices for Services sector is estimated at 73.79 lakh crore INR in 2016-17. Services sector accounts for 53.66% of total India's GVA of 137.51 lakh crore Indian rupees.

Table No. 1 *(comparison of GDP of India & China)*

India	China
3.890957	9.654289
8.479784	9.399813
10.25996	10.63614
6.638364	9.536443
5.456388	7.856262
6.386106	7.757635
7.410228	7.297666

8.154425	6.900205
7.112686	6.7
6.624227	6.9

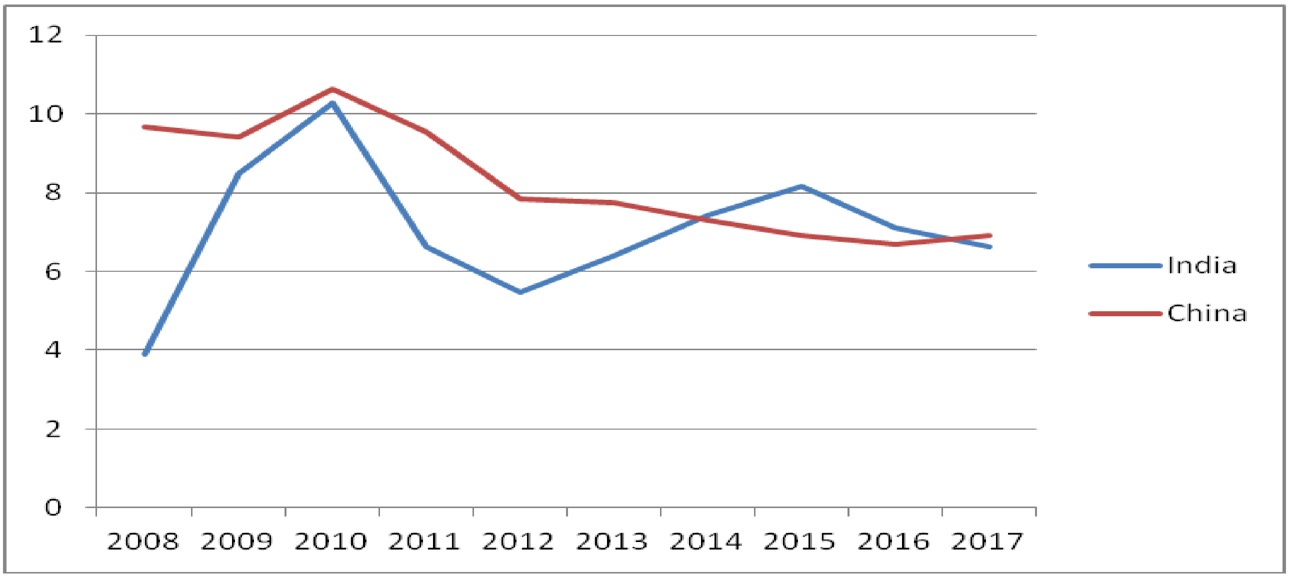


Figure 1 *Comparison of India and China GDP growth rate*

The above data depicts the GDP of China and India from 2008 to 2017, till 2014 China was ahead of India but after 2014 India and China are going neck to neck and recently till October 2018 the GDP of China was growing at the rate of 6.5% and India's GDP growth rate rate stood at 7.2%. As per **IMF** publication:

*"**GDP** measures the monetary value of final goods and services—that are bought by the final user—produced in a country in a given period of time (say a quarter or a year)."* Total **GDP** can also be broken down into the contribution of each industry or sector of the economy.

Table No. 2 *(GDP growth rate of India)*

YEAR	**GDP OF INDIA**
2008	3.890957062
2009	8.479783897
2010	10.25996306
2011	6.6383638
2012	5.456387552
2013	6.386106401

2014	7.410227605
2015	8.154425028
2016	7.112686097
2017	6.624227116

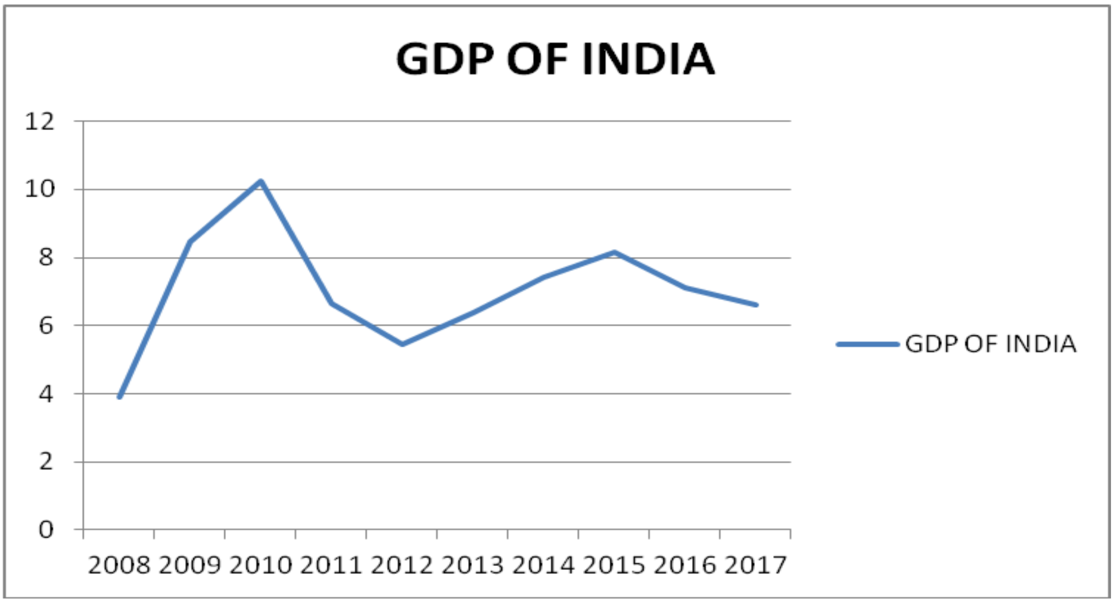


Figure 2 *Growth rate of GDP of India from 2008 to 2017*

Table No. 3 *(Foreign direct investment, net inflows (BoP, current US$))*

YEAR	Foreign direct investment, net inflows (BoP, current US$)
2007	25227740886.68
2008	43406277075.81
2009	35581372929.66
2010	27396885033.78
2011	36498654597.86
2012	23995685014.21
2013	28153031270.32
2014	34576643694.14
2015	44009492129.53
2016	44458571545.80
2017	39966091358.74

FDI As per United Nations:

Foreign Direct investment (**FDI**) is investment made to acquire a. lasting interest in or effective control over an enterprise operating outside of the economy of the investor.

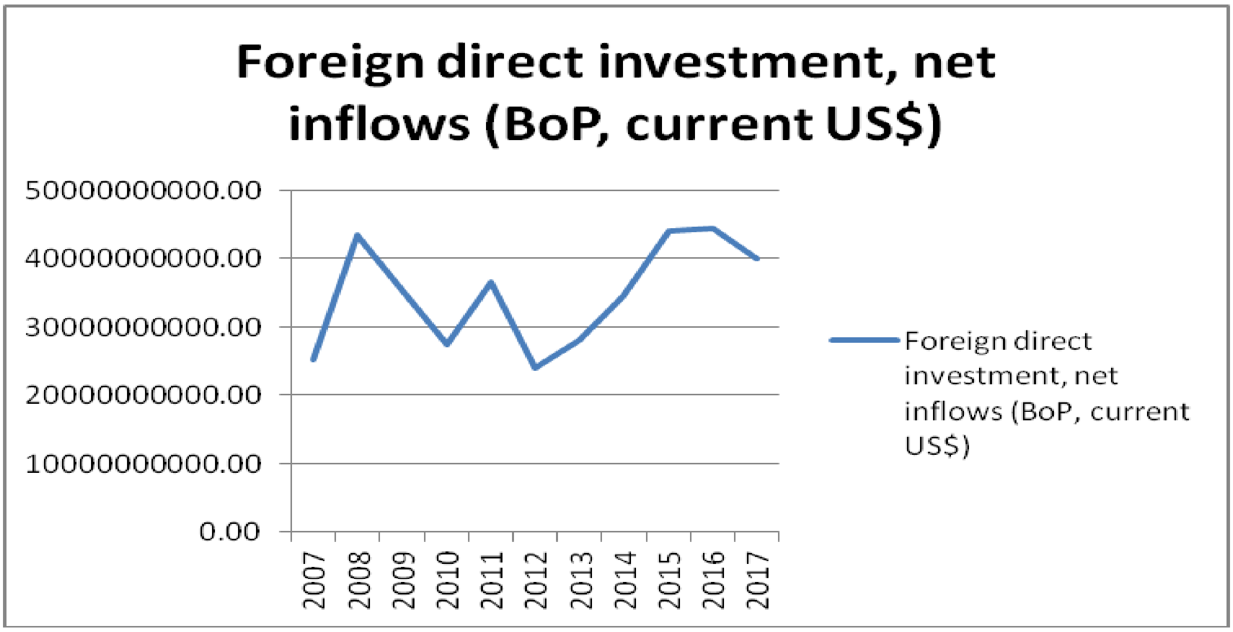


Figure 3 *FDI inflow of India from 2007 to 2017*

The rise in FDI equity inflows in the previous financial year, compared to the one earlier, was because of some big-ticket deals, especially in the chemical and oil & gas segments. Besides, strategic and financial investors continue to evaluate and explore opportunities in both greenfield and brownfield sectors2014: Make in India Initiative

After the September 2014 launch of the initiative MAKE IN INDIA, which seeks to promote manufacturing and attract foreign investment, there was an almost 40% increase in FDI inflows from October 2014 to June 2015 over the year-ago period (live mint).

Under the programme, the government has awarded 56 defence manufacturing permits to private sector entities in the past one year, after allowing 49% FDI in the defence sector in August 2014, compared with 47 granted in the preceding three years.

"The concept of Make in India has really succeeded as it added more employment. With this, India has now become a vibrant market for manufacturers. For the products that are made out of the initiative, India has a strong domestic market with increasing demand.

Literature Review

Azar & Marimuthu (2012) in their study concluded that India has all the variables 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. India is now rated as the second-most favoured destination for FDI in the world after China, but it is expected that in future India would out beet china as it has a large proportion of young population with one of the fastest growing economies. Instead of the government should formulate the policies which can attract more foreign investment in manufacturing sector rather than service sector

Malhotra (2014) concluded that India's Foreign Direct Investment (FDI) policy has been gradually liberalised to make the market more investor friendly. The results have been encouraging. These days, the country is consistently ranked among the top three global investment destinations by all international bodies, including the World Bank, according to a United Nations (UN) report. For Indian economy which has tremendous potential, FDI has had a positive impact. 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.

Sahoo (2014) in his study outlined India's foreign direct investment (FDI) policies and highlights challenges for foreign investors, recent policy developments, and the potential for foreign firms. The researcher suggested various policy measures like different ministries to work together, and meetings are now frequently held between ministries to sort out differences for quick project clearance, improving coordination between the states and the central government for project clearance is imperative, To make SEZs more attractive, proper planning and design should include local level solutions for land acquisition and infrastructure connectivity to SEZs, along with sector-specific policies to attract FDI

Kumar M. (2014) revealed in his study that trade, GDP, Reserves, Exchange rate are the main determinant of FDI inflows to the country. Finally, the author observed that FDI is a significant factor influencing the economic reserves of the country.

Kirti & Prasad (2016) concluded that manufacturing and service sector of India are on the rise and are likely to attract more investment and intellect from the world but since India skipped the traditional phase where it was suppose to have rise in manufacturing sector before the service sector it just might work fine as now the manufacturing sector is looking stronger than before. FDI in all these sectors clearly reflects the confidence of international community on the ability of growth and incentive that it is likely to give.

Objective

The main objective of the study is to find the relationship between FDI inflows and Manufacturing sector growth.

Research Methodology

The research is based on Secondary data & Regression analysis is used to establish the relationship between FDI inflows and Manufacturing sector growth

Hypothesis of the study

H0: There is a relationship between FDI inflow and Manufacturing sector growth rate.

H1: There is no relationship between FDI inflow and Manufacturing sector growth rate.

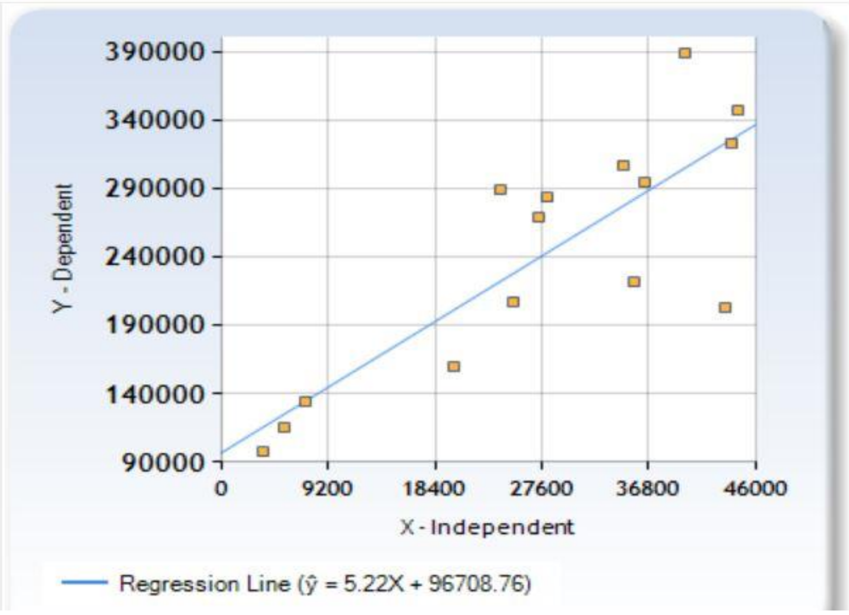
Table no. 4 (Manufacturing sector and FDI inflow in Million us dollar)

YEAR	MANUFACTURING IN MIL US $	FDI IN MIL. US $
2003	97098.16	3681.98
2004	115051.50	5429.25
2005	134394.79	7269.41
2006	160020.10	20029.12
2007	207581.66	25227.74
2008	202935.99	43406.28
2009	221694.92	35581.37
2010	268485.24	27396.89
2011	294228.18	36498.65
2012	289076.07	23995.69
2013	283206.25	28153.03
2014	307206.18	34576.64
2015	323226.97	44009.49
2016	347271.58	44458.57
2017	389508.14	39966.09

$X - M_x$	$Y - M_y$	$(X - M_x)^2$	$(X - M_x)(Y - M_y)$
-24296.7	-145634.222	590329630.89	3538431001.6674
-22549.43	-127680.882	508476793.3249	2879131110.9973
-20709.27	-108337.592	428873863.9329	2243592443.8778
-7949.56	-82712.282	63195504.1936	657526248.4959
-2750.94	-35150.722	7567670.8836	96697527.1787
15427.6	-39796.392	238010841.76	-613962817.2192
7602.69	-21037.462	57800895.2361	-159941301.9728
-581.79	25752.858	338479.6041	-14982755.2558
8519.97	51495.798	72589888.8009	438742654.0861
-3982.99	46343.688	15864209.3401	-184586445.8671
174.35	40473.868	30397.9225	7056618.8858
6597.96	64473.798	43533076.1616	425395540.2521
16030.81	80494.588	256986869.2561	1290393446.2563
16479.89	104539.198	271586774.4121	1722794483.7282
11987.41	146775.758	143697998.5081	1759461189.2068
		SS: 2698882894.2266	SP: 14085748944.3174

Source https://www.socscistatistics.com/tests/regression/Default.aspx

X Values	Y Values
3681.98	97098.16
5429.25	115051.50
7269.41	134394.79
20029.12	160020.10
25227.74	207581.66
43406.28	202935.99
35581.37	221694.92
27396.89	268485.24
36498.65	294228.18
23995.69	289076.07
28153.03	283206.25
34576.64	307206.18
44009.49	323226.97
44458.57	347271.58
39966.09	389508.14
M: 27978.68	M: 242732.382



Source https://www.socscistatistics.com/tests/regression/Default.aspx

Calculation Summary

Sum of X = 419680.2
Sum of Y = 3640985.73
Mean X = 27978.68
Mean Y = 242732.382
Sum of squares (SS_X) = 2698882894.2266
Sum of products (SP) = 14085748944.3174

Regression Equation = $\hat{y} = bX + a$

$b = SP/SS_X = 14085748944.32/2698882894.23 = 5.2191$

$a = M_Y - bM_X = 242732.38 - (5.22*27978.68) = 96708.75752$

$\hat{y} = 5.2191X + 96708.75752$

Source https://www.socscistatistics.com/tests/regression/Default.aspx

Regression equation reflects that there is a positive relationship between FDI inflow and Manufacturing sector growth rate hence the test was unable to prove the alternative hypothesis true thus we can conclude that Null hypothesis stands true i.e. there is a positive relationship between FDI inflows and Manufacturing sector growth rate. The same has also been supported by many earlier researches (Samal & Raju, 2016)

Findings

When it comes to the manufacturing sector the role of the government is very important as it has to work a catalyst for change an d it has to make certain changes in policy framework to make the entrepreneurial environment conducive for the growth of manufacturing sector. The Government of India has taken several initiatives to promote a healthy environment for the growth of manufacturing sector in the country. Some of the notable initiatives and developments are:

- ✧ With the Introduction of major policy changes (Introduction of Goods and services tax) India has improved on ease of doing business index from 100^{th} to 77^{th} rank
- ✧ The Uttar Pradesh (UP) government has secured investment deals of Rs 5,000 Crore (US$ 752.58 million) for setting up mobile manufacturing units.

- The Government of Maharashtra has cleared land allotment for 130 industrial units across the state with an investment of Rs 6,266 Crore (US$ 943.13 million).
- Government of India has decided to invest US$ 10 billion in two semiconductor plants in order to facilitate electronics manufacturing in the country.
- New Entrepreneurs of small-scale businesses in India will soon be able to avail loans under Pradhan Mantri MUDRA Yojana (PMMY). The three products available under the PMMY include:
- Shishu - covering loans up to Rs 50,000
- Kishor - covering loans between Rs 50,000 (US$ 752) to Rs 0.5 million (US$ 7,520), Tarun - covering loans between Rs 0.5 million (US$ 7,520) and Rs 1 million (US$ 15,052).
- Make in India initiative: The aim was to increase the contribution of the manufacturing sector up to 25% in the Gross Domestic Product of the country's economy. Earlier, the contribution was limited up to 15% but the impact of Make in India has increased the contribution by 7.6% in 2015-16. In the last several years, this was the fastest change in the sector

Conclusion

With the dawn of 21st century the role of the government is changing the need of the hour is less governance and more guidance, the government should focus more on creating a compatible environment for entrepreneurism, in the race of growth India have attained new heights but to compete with the world India need to boost its manufacturing sector & FDI inflow. The relationship between FDI and Manufacturing sector is not that mysterious there are major policy reforms which have been introduced by the Government of India to create a suitable environment for manufacturing sector to grow coupled with favoured policies to induce FDI inflows (such as introduction of Goods and services tax & Make in India). The constructive results of the efforts can be seen and the research conducted concludes that there is a significant positive relationship between FDI inflows and Manufacturing sector growth. As this research includes only one segment of the GDP i.e. manufacturing sector & it does not take into account the impact of demonetisation, this research can be carried forward for the future to include other segments of GDP (Service sector, agriculture and allied services & Industry sector) of India & impact of demonetisation as well, for a broader perspective.

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