CHECKMATE 2016
8TH INTERNATIONAL CONFERENCE

"INDIA : A MOST BEFITTING COUNTRY TO BECOME A GLOBAL MANUFACTURING HUB"

MS. REKHA NAIR
RESEARCH SCHOLAR
AIMS, PUNE

INTRODUCTION

India's manufacturing sector enjoyed strong growth over the last decade. In 2014, India was ranked the fourth-most competitive manufacturing nation in Deloitte's global index of 38 nations. Growth in India's manufacturing sector bodes well for ETFs (exchange-traded funds) investing in Indian equities such as the Wisdom Tree India Earnings Fund (EPI), the Power Shares India Portfolio (PIN), and the iShares MSCI India ETF (INDA). Just as the SPDR S&P 500 ETF (SPY) and the iShares Core S&P 500 ETF (IVV) serve as good gauges of the US economy, these ETFs help read the pulse of the Indian economy. The production of goods and services is increasingly carried out wherever the required skills, materials, and infrastructure are available at a competitive cost.

Our Honorable Prime Minister, Shri Narendra Modi announced the plan and design of "Make in India", "Digital India" Campaigns, Start-Ups, Skill India, Smart Cities Development, Power Generation Projects and several other schemes. He invited world leaders from US, UK, France, Japan, China, Germany, EU and all the SAARC countries and show-cased India's business friendly reforms which have significantly created a positive business environment in India. However there are certain bottlenecks in the economy which the Government needs to address towards making India a global manufacturing hub. This research paper aims to identify some of the key challenges in the path of development and recommend possible solutions to deal with the same. Through secondary research and data obtained from various authenticated sources like Ministry of Industries, Ministry of Finance, RBI, World Bank, Wasteland Atlas of India, Ministry of Road Transport and Highways website, www.infraline.com website, reports from Ernst and Young and various news articles from

some of the leading newspapers, this paper has been able to identify the following major challenges in the path of making India a global manufacturing hub and accordingly make a few suggestions regarding possible solutions to deal with each of the issues.

Under the leadership of our Prime Minister, India intends to make India "the global manufacturing hub". To support this mission, several projects like Make in India, Smart Cities Development, Development Industrial Cities, Industrial Corridors, development of Industrial Development Zones, SEZ, Development of ports, roads and aviation have been initiated by the Indian Government. Also the Indian government is trying to change the previous perceptions about India by inviting global leaders to have a feel of safe, secure and profitable investment in India. The government of India has already taken several initiatives like development of infrastructure linkages like pioneer plants, assured water supply, high capacity transportation and logistics facilities, building of an "industrial corridor" between Delhi and Mumbai by working with various foreign countries for the Make in India Mission. Manufacturing of various defense equipment including building of warships, manufacturing of airplanes and helicopters, light machine guns and several others with the help of various countries like France, US, UK, Germany etc. and for the construction of roads and development of Smart Cities, Indian Government is taking help of Japanese government.

MISSION MODE PROGRAMMES FOR MAKING INDIA AS A GLOBAL INVESTMENT DESTINATION

During the last 18 months India has witnessed several revolutionary developmental schemes which include, Swachchha Bharat Mission, Make in India, Smart Cities, 24 x 7 Power, Agriculture Development, Crop Insurance, Model Village Concept, Financial Inclusion, Jan-Dhan Yojna, Social Securities Schemes, Tax Reforms, Digital Governance, Skill India, Start Up Policies, CSR etc. The Government's aggressive push to revive an ailing manufacturing sector has found resonance with India Inc. Single-window clearances, minimal procedures and cutting out of any red-tapism by India to "Make in India" is a vital impetus for employment and growth. In the last 18 months, the government of India has also taken several initiatives and launched several schemes to improve all the sectors of economy *viz.* Automobile, Aviation, Biotechnology, Chemical, Construction, Defense, Manufacturing, Electric Machinery, Electronics System, Food Processing, IT & BPM, Leather, Media & Entertainment, Mining, Oil & Gas, Pharmaceuticals, Ports & Shipping, Railway, Renewable Energy, Road & Highways, Space, Textile and Garments, Thermal Power, Tourism & Hospitality, Wellness & Spiritual sector.

During the last one year, more than 15 heads of all major countries including US, UK, Japan, China, Russia, France and EU etc. have visited India and shown interest in investing in India's "Make in India" Mission. The Prime Minister and other Ministers have visited more than 25 countries during this period and tried to convince the world to choose India as the best destination for safe and profitable investment. The government is also taking a number of steps to boost investments as well as reviving stalled projects and infusing more capital into public sector banks. India has all the required business and manufacturing environment and potential. India through various mission mode programmes of the government and especially through Make in India, Skill India and Start Up Policy, can become a global hub for manufacturing provided all political parties and all Indian citizens support the government to implement the reforms like goods & services tax (GST), Land Acquisition Bill and others. The probable result of passing of GST Bill and Land Acquisition Bill will boost the economy between 1 to 2%.

Some states like Gujarat, Maharashtra, Delhi, Karnataka, Andhra Pradesh and Haryana have shown their caliber to become India's manufacturing hub. The central government is trying to create required environment and infrastructure and make them the country's manufacturing base and try to become a large manufacturing economy in the world.

India has followed a peculiar growth story over the years. While China focused on cheap, high volume commodity production, India has seen high growth in the services sector. The new government has begun its term hitting the right notes with the Prime Minister personally putting his weight behind the "Make in India" campaign.

Right from creating a single window facility for addressing investor concerns, identifying key manufacturing sectors, to creating a common platform to unite state governments, bureaucracy and corporate leaders; the government seems serious in its intent to elevate India's "ease of doing business" rank internationally. Overhauling complex compliance procedures and reforming archaic labour laws will put an end to institutionalized corruption and encourage

entrepreneurship. Easing the FDI norms in construction, rail infrastructure and defense should only be the beginning of a series of positive signals.

India is blessed with a large labour pool and admirable levels of judicial transparency. It can leverage its territorial position to play a critical role in the global supply chains. Doubling up as a potential high consumption market can keep demand fluctuations in check as well as save up on the logistics costs. And if it can internally strengthen on three fronts: cost (cheaper labour), quality (high skilled workforce), and supply chain (robust infrastructure), India can call itself the next global factory in future.

EASE OF DOING BUSINESS IN INDIA

According to World Bank report, India ranks 138 out of 189 countries in the category for ease of doing business based on surveys conducted in the two major cities of India, Mumbai and Delhi. To increase investor sentiment, it is necessary that the Government work to improve the various components of doing business indicators like starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency because it is these indicators that a firm looks at before going forward with an investment decision in a country. The Ease of Doing Business score is obtained by conducting surveys of start-ups in the largest business cities of India. The break-up of the Ease of Doing Business score parameter wise is given below for Mumbai :

Starting a Business	**156**
Dealing with Construction Permits	**183**
Getting Electricity	134
Registering Property	115
Getting Credit	30
Protecting Minority Investors	21
Paying Taxes	**154**
Trading Across Borders	122
Enforcing Contracts	**186**
Resolving Insolvency	135

Source: Doing Business report, World Bank Group

Thus, as seen from the figures in the red, it is primarily in the areas of starting a business, dealing with construction permits, paying taxes and enforcing contracts among the other indicators that the Government needs to focus on. Some of the suggested reforms for the above mentioned areas of concern are mentioned below :

I STARTING A BUSINESS

Rapidly developing economies around the world have taken steps to make it easier for starting a business, like streamlining procedures by setting up a one-stop shop, making procedures simpler or faster by introducing information technology and reducing or eliminating minimum capital requirements. India should therefore implement similar reforms to reap benefits like greater firm satisfaction and savings and more registered businesses, more financial resources and job opportunities.

II. DEALING WITH CONSTRUCTION PERMITS

Regulation of the construction sector is critical to protect the public. However excessive constraints on the construction sector may compel companies to pay bribes to pass inspections or simply build illegally to avoid the excessive costs in time and money incurred for compliance to regulations leading to hazardous constructions that put public safety at risk. Therefore, smart regulations ensure that standards are met while making compliance easy and accessible to all. In an effort to ensure building safety while keeping compliance costs reasonable, governments around the world have adopted coherent and transparent rules, efficient processes, stricter deadlines and adequate allocation of resources.

III. PAYING TAXES

Taxes are essential sources of revenue for the Government. However, the power of taxation should be exercised with extreme caution and judiciousness so that it does not negatively impact the economy and the investment climate. Policies like retrospective taxation which negatively impact investor confidence must be done away with. Online tax filing and payment should be introduced in as many tax parameters as possible. Also, taxes on essential and elastic goods and services should be kept low so that there is not a heavy tax burden on either the consumer or the producer. The implementation of the Goods and Services Tax will foster a climate of investment and growth by bringing about myriad benefits like broadening the tax base, eliminating indirect taxes, central sales tax, state-level sales tax, entry tax, stamp duty, taxes on transportation of goods and services ,et cetera. It is expected to help build a transparent and corruption-free tax administration. GST will be levied only at the destination point and not at various points unlike the current tax system where a manufacturer needs to pay

tax when a finished product moves out from the factory and it is again taxed at the retail outlet when sold. It is estimated that India will gain $15 billion a year by implementing GST as it would promote exports, raise employment and boost growth.

IV. ENFORCING CONTRACTS

In India, settling commercial disputes is an extremely costly and time consuming process. According to data collected by Doing Business, contract enforcement takes on the average 1420 days, costs 39.6 % of the value of the claim and requires 46 procedures. The Supreme Court should enforce short and strict deadlines for dispute settlement and reduce the number of unnecessary formalities associated with dispute settlements.

V. LAND ACQUISITION CHALLENGES

One of the very important initial steps for establishment of manufacturing facilities by a firm is acquiring land. Under the new Land acquisition act, developers would require the consent of up to 80 per cent of people whose land is acquired for private projects and of 70 per cent of land owners in the case of public-private partnership projects. But the greatest concern in acquiring such land is the proper rehabilitation and resettlement of affected inhabitants of those lands. The government has to identify and devise strategies for the rehabilitation and resettlement of the displaced people failing which the result can be serious conflicts. Moreover, the rehabilitation and resettlement also becomes a costly venture. Land acquisitions for factories, roads and housing projects in states like Haryana and UP have sparked clashes between farmers and state authorities, resulting in huge project delays. One alternative for the government is to acquire only wasteland for industrialization purposes. This will eliminate the requirement of the consents and the costs of rehabilitation and resettlement and therefore lead to speedier execution of projects.

According to data available in Wasteland atlas of India as per 2009 figures, a total of 552692 square kilo meters of wasteland exist in India out of the total geographical area of 3287263 square kilo meters. This vast amount of wasteland presents a huge potential for setting up manufacturing facilities after appropriate engineering and geographical assessments of these areas. Moreover, acquisition of these wastelands is unlikely to invite any criticism and hence we can look at speedier execution of development projects.

VI. IMPROVING THE EMPLOYABILITY OF STUDENTS

The greatest asset of any firm is its human resource. Companies will set up manufacturing facilities in India only if it is able to find requisite amount of good quality skilled labour in the country. Around 51% of the workforce is employed in the agricultural sector which contributes to only about 17% of the GDP and around 22% of the workforce is employed in the manufacturing sector which contributes to around 26% of GDP. However, various surveys conducted on employability reveals a vast skills gap between graduate skills and market needs. According to Higher Education in India: Vision 2030 , a report produced by international consultants Ernst and Young for the Federation of Indian Chambers of Commerce and Industry (FICCI), 75% of IT graduates, 55% of manufacturing, 55% of healthcare and 50% of Banking and Insurance graduates are deemed unemployable. Moreover, the National Association of Software and Services Companies (NASSCOM) maintains that of around 3 million graduates each year, less than a third of graduates of engineering colleges and only 10% to 15% of regular graduates are employable. It is therefore important to dwell upon the possible reasons which cause low employability of Indian graduates in general and engineering graduates in particular. In most of the engineering institutions the course curriculum is by and large, theoretical in nature and students are not made aware of the applications of the theories in industry. The programmes and their course content reflect lack of interaction among academic institutions and industries. In the process, the curriculum quite often fails to meet the needs of the industries. Not many structural changes have taken place in the curriculum even though rapid developments have been taking place continuously in the field of science and technology. Moreover, the evaluation system has not been made robust enough to find out the knowledge level of the students. The philosophy of the semester system and the continuous evaluation process are not being understood by the students and also by the faculty members. Thus they are applied in a routine manner and the students concentrate only on the grades and not on learning. Since there is a lack of interaction between academic learnings and industries, graduates coming out of technical institutions do not have the adequate knowledge to implement projects or carry out research independently. This creates a severe mismatch between employer needs and the skills of the graduates. Since job requirements are continuously changing it is quite

difficult to produce tailor made engineers unless there is regular and structured interaction between academia and industries.

However all above mentioned points sound relevant when we look at higher education in isolation only. If we see the whole education system starting from the elementary level we find that the problems lie at every stage of our education system. At the school level we find that the present day syllabus does not stress simple and subtle concepts, but involves tiresome details. Most entrance tests for admission to better known institutions emphasize speed and memory and not calm and collected thinking. Thus an all-out effort is needed to produce readily- employable technical man power in the country. The improvement of infrastructure, redesign of curricula, improvement of teaching-learning methods and attracting well qualified teachers, along with the above mentioned measures to bring in industry interaction along with academics, are only a few steps that could be initiated by individual institutions.

VII. INFRASTRUCTURE DEVELOPMENT OF MAJOR ROADS AND HIGHWAYS IN THE COUNTRY

It is needless to say that well developed and well maintained infrastructure, particularly, roads and highways is vital for an efficient inbound and outbound logistics of a manufacturing firm to ensure efficient movement of raw materials and finished goods across the country as roads carry 65% of its freight in the country. India has a total of 48.65 lakh kilometer of road network comprising National Highways (92,851 Km), State Highways (1,38,489 Km), Major District Roads, Rural roads and Urban roads (All together 46.34 Lakh kilometer) as per figures from website of Ministry of Road Transport and Highways as on 31st March, 2014. National Highways comprise 1.7% of India's total road network but carry 40% of road traffic. Most of these highways are two lane highways. Only 10,000 Km of highways have been widened to four lanes with two lanes in each direction as of August, 2011. Moreover, as of 2010, 19064 Km of NH were still single-land roads. With increase in vehicular traffic and congestion in the major cities of India and for smooth movement of large container trucks, it is imperative that the Government in association with private parties through public-private partnerships convert the single-lane or double-lane national and state highways to four or six lane roads to cater to the growing congestion problem in India. However, most of these conversion projects are stuck at various stages of bureaucratic delays. With the new government at the centre, we can hope for faster execution of projects by removal of unnecessary approval stages and thereby leading faster clearances. Moreover, to improve the flow of traffic, Government should work to introduce smart traffic control systems whereby real time data on vehicular traffic flow can be obtained through sources like traffic cameras and can be used to control the sequence and duration of traffic signals at major junctions across India. With these initiatives, the manufacturing sector will receive a shot in the arm to tread the path of development.

VIII. CAPACITY ADDITION IN THE POWER SECTOR TO MEET INDUSTRIAL ENERGY DEMAND

Without the power industry, no other industry would survive. India has an installed capacity of 253.389 GW as of August 2014, the break-up of which is given below: In a May 2014 report by India's Central Electricity Authority, India had an energy requirement of 1048672 Million Units (MU) of energy out of which only 995157 MU of energy were available and out of a peak demand of 147815 MW, 144788 MW was the supply. Also, the 17th electric power survey of India report claims that over 2010-11, India's industrial demand accounted for 35% of electrical power requirement which will further grow significantly as more and more manufacturing facilities come up. As per the 12th five year plan, the Government had targeted a capacity addition of 88,537 MW out of which only 46,766 MW have been achieved so far as of August,2014. Delay in environmental clearances and shortage of fuel supply are some of the major challenges faced by the Indian power sector. The Supreme Court's decision to deallocate 204 coal mines is further going to add to the woes of the power sector. To meet the fuel shortage and avoid importing coal in order to prevent increasing cost of power production, the Government must focus on raising domestic coal production and improving quality of the existing mines by ensuring efficient and transparent allocation of coal blocks. Moreover, the Government should also work on scaling up other renewable sources of power like Hydro by focusing on resource rich states like Arunachal Pradesh, J&K and Himachal Pradesh after accurate and proper assessment of the environmental impact of setting up power plants in these states.

IX. STRENGTHENING INDUSTRIAL SECURITY

It is highly probable that most of the future manufacturing

facilities will have to be set up in remote areas of India, some of which are infested with insurgency and terrorism. Major industrial installations in India like oil refineries, nuclear installations, space installations and other heavy engineering industries have always been on terror radar. With rise in establishment of manufacturing facilities and the growing threat of internal as well as external terrorism, the demand for industrial security cover will raise manifold.

FOREIGN DIRECT INVESTMENTS (FDI) IN INDIA

TABLE 1 : SHARE OF TOP INVESTING COUNTRIES FDI EQUITY INFLOWS (FINANCIAL YEARS)

AMOUNT RUPEES IN CRORES (US$ IN MILLION)

Ranks	*Country*	*2011-12 (April - March)*	*2012-13 (April - March)*	*2013-14 (April - March)*	*2014-15 (April - March)*	*2015-16 (April,15 - June, 15)*	*Cumulative Inflows (April '00 - June '15)*	*%age to total Inflows (in terms of US $)*
1.	MAURITIUS	46,710 (9,942)	51,654 (9,497)	29,360 (4,859)	55,172 (9,030)	13,236 (2,089)	438,892 (89,644)	35 %
2.	SINGAPORE	24,712 (5,257)	12,594 (2,308)	35,625 (5,985)	41,350 (6,742)	23,320 (3,673)	190,477 (35,861)	14 %
3.	U.K.	36,428 (7,874)	5,797 (1,080)	20,426 (3,215)	8,769 (1,447)	755 (119)	110,409 (22,329)	9 %
4.	JAPAN	14,089 (2,972)	12,243 (2,237)	10,550 (1,718)	12,752 (2,084)	2,916 (459)	96,312 (18,811)	7 %
5.	NETHERLANDS	5,347 (1,115)	3,033 (557)	13,920 (2,270)	20,960 (3,436)	4,123 (652)	81,381 (15,323)	6 %
6.	U.S.A.	6,698 (1,409)	10,054 (1,856)	4,807 (806)	11,150 (1,824)	3,959 (627)	70,839 (14,378)	6 %
7.	GERMANY	7,722 (1,587)	2,658 (490)	6,093 (1,038)	6,904 (1,125)	3,497 (554)	42,007 (8,198)	3 %
8.	CYPRUS	7,452 (1,622)	4,684 (860)	3,401 (557)	3,634 (598)	608 (96)	39,971 (8,140)	3 %
9	FRANCE	3,110 (663)	3,487 (646)	1,842 (305)	3,881 (635)	877 (138)	23,465 (4,651)	2 %
10.	SWITZERLAND	1,728 (353)	987 (180)	2,084 (341)	2,066 (337)	598 (94)	15,812 (3,139)	1 %
Total FDI inflows from all countries *			165,146 (35,121)	147,518 (24,299)	189,107 (30,931)	60,298 (9,508)	1,293,836 (258,141)	-

* Includes inflows under NRI Schemes of RBI.

Note :

(i) Cumulative country-wise FDI equity inflows (from April, 2000 to June, 2015)

(ii) %age worked out in US$ terms & FDI inflows received through FIPB/SIA+ RBI's Automatic Route + acquisition of existing shares only.

Source : DIPP, Federal Minister of Commerce & Industry, Government of India

Table 1 depicts the country-wise FDI inflow in India during April 2000 - June 2015. The analysis indicates that a large part of the FDI in India is contributed by the above ten countries which is 1,293,836 million US$. Mauritius emerges as the most dominant source of FDI contributing 438,892 million US$ of the total investment in the country. It is primarily because India has Double Taxation Avoidance Agreement (DTAA) with Mauritius. This type of taxation treaty has also been made out with Singapore leading to Singapore as the second largest investor of FDI in India. The other major countries are UK followed by Japan, Netherlands and US. While some countries like Germany Cyprus, France and Switzerland have fewer shares in the total FDI inflow.

TABLE 2 : SECTORS ATTRACTING HIGHEST FDI EQUITY INFLOWS

AMOUNT IN RS. CRORES (US$ IN MILLION)

Ranks	*Sector*	*2011-12 (April - March)*	*2012-13 (April-March)*	*2013-14 (April - March)*	*2014-15 (April-March)*	*2015-16 (April,15 - June, 15)*	*Cumulative Inflows (April '00 - June '15)*	*% age to total Inflows (In terms of US$)*
1.	SERVICES SECTOR **	24,656 (5,216)	26,306 (4,833)	13,294 (2,225)	19,963 (3,253)	4,036 (636)	209,578 (43,350)	17 %
2.	CONSTRUCTION DEVELOPMENT: TOWNSHIPS, HOUSING, BUILT-UP INFRASTRUCTURE	15,236 (3,141)	7,248 (1,332)	7,508 (1,226)	4,582 (758)	216 (34)	113,355 (24,098)	9 %
3.	COMPUTER SOFTWARE & HARDWARE	9,012 (1,997)	1,654 (304)	6,896 (1,126)	13,564 (2,200)	16,245 (2,556)	89,481 (17,575)	7 %
4.	TELECOMMUNICATIONS (radio paging, cellular mobile, basic telephone services)	3,804 (796)	2,656 (486)	7,987 (1,307)	17,372 (2,895)	2,517 (395)	86,609 (17,453)	7 %
5.	AUTOMOBILE INDUSTRY	14,605 (3,232)	6,011 (1,123)	9,027 (1,517)	15,794 (2,570)	6,914 (1,094)	70,906 (13,477)	5 %
6.	DRUGS & PHARMACEUTICALS	18,422 (4,041)	1,596 (292)	7,191 (1,279)	9,211 (1,523)	1,370 (215)	66,652 (13,336)	5 %
7.	CHEMICALS (OTHER THAN FERTILIZERS)	4,347 (923)	8,384 (1,537)	4,738 (878)	4,077 (669)	1,598 (251)	50,909 (10,588)	4 %
8.	POWER	7,678 (1,652)	2,923 (536)	6,519 (1,066)	3,985 (657)	1,717 (271)	48,357 (9,828)	4 %
9.	TRADING	8,348 (1,786)	7,878 (1,466)	8,191 (1,343)	16,962 (2,761)	5,679 (897)	49,479 (8,958)	4 %
10	METALLURGICAL INDUSTRIES	4,754 (993)	17,777 (3,259)	3,436 (568)	2,897 (472)	845 (133)	41,992 (8,680)	3 %

Note ** Services sector includes Financial, Banking, Insurance, Non-Financial / Business, Outsourcing, R&D, Courier, Tech. Testing and Analysis

i. Cumulative Sector- wise FDI equity inflows (from April, 2000 to June, 2015)

ii. **FDI Sectoral data has been revalidated / reconciled in line with the RBI, which reflects minor changes in the FDI figures (increase/decrease) as compared to the earlier published sectoral data.**

Source : DIPP, Federal Minister of Commerce & Industry, Government of India

Table 2 clearly shows the FDI inflows in different sectors for the period of April 2000 - June 2015. It reveals that the highest share *i.e.* 17% of FDI inflow is into the Service Sector which includes Financial, Banking, Insurance, Non-Financial/Business, etc. However, a good share of 28% of the total investment in different sectors can be observed in the manufacturing domain which includes Computer Software & Hardware, Telecommunications, Automobile, Drugs & Pharmaceuticals, and Chemicals.

TABLE 3 : STATEMENT ON RBI'S REGIONAL OFFICES (WITH STATE COVERED) RECEIVED FDI EQUITY INFLOWS1 (FROM APRIL, 2000 TO JUNE, 2015) :

AMOUNT RUPEES IN CRORES (US$ IN MILLION)

S. No.	*RBI's - Regional Office*[2]	*State covered*	*2011-12 (April - March)*	*2012-13 (April - March)*	*2013-14 (April - March)*	*2014-15 (April - March)*	*2015-16 (April,15 - June, 15)*	*Cumulative Inflows (April '00 - June '15)*	*% age to total Inflows (in terms of US$)*
1	MUMBAI	MAHARASHTRA, DADRA & NAGAR HAVELI, DAMAN & DIU	44,664 (9,553)	47,359 (8,716)	20,595 (3,420)	38,933 (6,361)	12,538 (1,979)	365,560 (75,097)	29
2	NEW DELHI	DELHI, PART OF UP AND HARYANA	37,403 (7,983)	17,490 (3,222)	38,190 (6,242)	42,252 (6,875)	19,892 (3,128)	268,915 (52,539)	20
3	CHENNAI	TAMIL NADU, PONDICHERRY	6,711 (1,422)	15,252 (2,807)	12,595 (2,116)	23,361 (3,818)	5,828 (924)	94,595 (17,938)	7
4	BANGALORE	KARNATAKA	7,235 (1,533)	5,553 (1,023)	11,422 (1,892)	21,255 (3,444)	8,447 (1,336)	90,569 (17,456)	7
5	AHMEDABAD	GUJARAT	4,730 (1,001)	2,676 (493)	5,282 (860)	9,416 (1,531)	4,732 (745)	58,529 (11,786)	5
6	HYDERABAD	ANDHRA PRADESH	4,039 (848)	6,290 (1,159)	4,024 (678)	8,326 (1,369)	2,681 (422)	51,921 (10,437)	4
7	KOLKATA	WEST BENGAL, SIKKIM, ANDAMAN & NICOBAR ISLANDS	1,817 (394)	2,319 (424)	2,659 (436)	1,464 (239)	689 (108)	15,316 (3,089)	1
8	CHANDIGARH`	CHANDIGARH, PUNJAB, HARYANA, HIMACHAL PRADESH	624 (130)	255 (47)	562 (91)	234 (39)	91 (14)	6,452 (1,345)	1
9	JAIPUR	RAJASTHAN	569 (123)	1,208 (220)	233 (38)	3,237 (541)	109 (17)	6,904 (1,281)	1
10.	BHOPAL	MADHYA PRADESH, CHATTISGARH	2,274 (471)	390 (72)	708 (119)	601 (100)	9 (2)	6,105 (1,217)	1
11	KOCHI	KERALA, LAKSHADWEEP	181 (38)	47 (9)	411 (70)	1,418 (230)	35 (6)	6,186 (1,216)	1
12	PANAJI	GOA	161 (33)	714 (132)	103 (17)	211 (35)	81 (13)	3,949 (836)	0.3
13	KANPUR	UTTAR PRADESH, UTTRANCHAL	635 (140)	167 (31)	150 (25)	679 (110)	137	2,581 (504)	0.2
14	BHUBANESHWAR	ORISSA	125 (28)	285 (52)	288 (48)	56 (9)	3 (0.4)	1,964 (398)	0.2
15	GUWAHATI	ASSAM, ARUNACHAL PRADESH,MANIPUR, MEGHALAYA, MIZORAM, NAGALAND, TRIPURA	5 (1)	27 (5)	4 (0.6)	29 (5)	37 (6	418 (89)	0.03

16	PATNA	BIHAR, JHARKHAND	123 (24)	41 (8)	9 (1)	68 (11)	234 (37)	501 (87)	0.03
17	JAMMU	JAMMU & KASHMIR	-	-	1 (0.2)	25 (4)	0.00 (0.00)	26 (4)	0.00
18	REGION NOT INDICATED		53,851 (11,399)	21,833 (4,004)	50,283 (8,245)	37,544 (6,211)	4,754 (750)	312,814 (62,700)	24
SUB. TOTAL			165,146 (35,121)	121,907 (22,424)	147,518 (24,299)	189,107 (30,931)	60,298 (9,508)	1,293,303 (258,020)	
19	RBI'S-NRI SCHEMES *(from 2000 to 2002)*		0	0	0	0	0	533 (121)	-
GRAND TOTAL			165,146 (35,121)	121,907 (22,423)	147,518 (24,299)	189,107 (30,931)	60,298 (9,508)	1,293,836 (258,141)	-

1. Includes 'equity capital components' only.

2 The Region-wise FDI inflows are classified as per RBI's

- Regional Office received FDI inflows, furnished by RBI, Mumbai

Source : DIPP, Federal Minister of Commerce & Industry, Government of India

TABLE 4 : FINANCIAL YEAR-WISE FDI INFLOWS DATA:

A. AS PER INTERNATIONAL BEST PRACTICES

(DATA ON FDI HAVE BEEN REVISED SINCE 2000-01 WITH EXPENDED COVERAGE TO APPROACH INTERNATIONAL BEST PRACTICES)

(AMOUNT US$ MILLION)

S. No.	Financial Year (April-March)	FOREIGN DIRECT INVESTMENT (FDI)						Investment by F II' s Foreign Institutional Investors Fund (net)
		Equity		Re-invested earnings +	Other capital +	FDI FLOWS INTO INDIA		
		FIPB Route/ RBI's Automatic Route/ Acquisition Route	Equity capital of unincorporated bodies #			Total FDI Flows	%age growth over previous year (in US$ terms)	
FINANCIAL YEARS 2000-01 to 2015-16 (up to JUNE, 2015)								
1.	2000-01	2,339	61	1,350	279	4,029	-	1,847
2.	2001-02	3,904	191	1,645	390	6,130	(+) 52 %	1,505
3.	2002-03	2,574	190	1,833	438	5,035	(-) 18 %	377
4.	2003-04	2,197	32	1,460	633	4,322	(-) 14 %	10,918
5.	2004-05	3,250	528	1,904	369	6,051	(+) 40 %	8,686
6.	2005-06	5,540	435	2,760	226	8,961	(+) 48 %	9,926
7.	2006-07	15,585	896	5,828	517	22,826	(+) 155 %	3,225
8.	2007-08	24,573	2,291	7,679	300	34,843	(+) 53 %	20,328
9.	2008-09	31,364	702	9,030	777	41,873	(+) 20 %	(-) 15,017
10.	2009-10	25,606	1,540	8,668	1,931	37,745	(-) 10 %	29,048
11.	2010-11 (P)	21,376	874	11,939	658	34,847	(-) 08 %	29,422
12.	2011-12 (P)	34,833	1,022	8,206	2,495	46,556	(+) 34 %	16,812
13.	2012-13 (P)	21,825	1,059	9,880	1,534	34,298	(-) 26%	27,582
14	2013-14 (P)	24,299	975	8,978	1,794	36,046	(+) 5%	5,009
15.	2014-15 (P)	30,933	952	8,983	3,423	44,291	(+) 23%	40,923
16.	2015-16 (P) (Apr - June 2015)	9,508	223	2,059	572	12,362		(-) 1,642
CUMULATIVE TOTAL (from April, 2000 to June, 2015)		259,706	11,971	92,202	16,336	380,215	-	188,949

Source

(i) RBI's Bulletin July, 2015 dt.10.08.2015 (Table No. 34 - FOREIGN INVESTMENT INFLOWS).

(ii) Inflows under the acquisition of shares in March, 2011, August, 2011 & October, 2011, include net FDI on account of transfer of participating interest from Reliance Industries Ltd. to BP Exploration (Alpha).

(iii) RBI had included Swap of Shares of US$ 3.1 billion under equity components during December 2006.

(iv) Monthly data on components of FDI as per expended coverage are not available. These data, therefore, are not comparable with FDI data for previous years.

(v) Figures updated by RBI up to June, 2015.

(vi) Data in respect of 'Re-invested earnings' & 'Other capital' are estimated as average of previous two years.

'#' Figures for equity capital of unincorporated bodies for 2010-11 are estimates. (P) All figures are provisional.

Source : DIPP, Federal Minister of Commerce & Industry, Government of India

B. DIPP'S - FINANCIAL YEAR-WISE FDI EQUITY INFLOWS :

(As per DIPP's FDI data base - equity capital components only) :

S. No	*Financial Year (April - March)*	*Amount of FDI Inflows*		*%age growth over previous year (in terms of US $)*
FINANCIAL YEARS 2000-01 to 2015-16 (up to June, 2015)		*In Rs crores*	*In US$ million*	
1.	2000-01	10,733	2,463	-
2.	2001-02	18,654	4,065	(+) 65 %
3.	2002-03	12,871	2,705	(-) 33 %
4.	2003-04	10,064	2,188	(-) 19 %
5.	2004-05	14,653	3,219	(+) 47 %
6.	2005-06	24,584	5,540	(+) 72 %
7.	2006-07	56,390	12,492	(+)125 %
8.	2007-08	98,642	24,575	(+) 97 %
9.	2008-09	142,829	31,396	(+) 28 %
10.	2009-10	123,120	25,834	(-) 18 %
11.	2010-11 #	97,320	21,383	(-) 17 %
12.	2011-12 # ^	165,146	35,121	(+) 64 %
13.	2012-13 #	121,907	22,423	(-) 36 %
14.	2013-14 #	147,518	24,299	(+) 8%
15.	2014-15 #	189,107	30,931	(+) 27%
16.	2015-16 # (Apr - June 2015)	60,298	9,508	
CUMULATIVE TOTAL (from April, 2000 to June, 2015)		1,293,836	258,142	-

Note (i) including amount remitted through RBI's-NRI Schemes (2000-2002).

(ii) FEDAI (Foreign Exchange Dealers Association of India) conversion rate from rupees to US dollar applied, on the basis of monthly average rate provided by RBI (DEPR), Mumbai.

Figures for the years 2010-11 to 2015-16 are provisional subject to reconciliation with RBI.

^ Inflows for the month of March, 2012 are as reported by RBI, consequent to the adjustment made in the figures of March, '11, August, '11 and October, '11.

Source : DIPP, Federal Minister of Commerce & Industry, Government of India

CHALLENGES FACING INDIAN MANUFACTURING

The manufacturing sector in India faces acute challenges. From problems with power, ports, railroads, and roads to a shortage of human capital, manufacturing in India has long lagged behind targeted goals.

Meanwhile, the Indian government is trying to promote India as a manufacturing hub to the U.S. and other foreign investors. It has plans, for instance, to build an industrial corridor between Delhi and Mumbai. It's also working with the Japanese government on developing seven new industrial cities, equipped with what's standard in China but still unusual in India. Such infrastructure development will ensure linkages to power plants, and assure water supply, high capacity transportation, and logistics facilities.

Despite the many challenges India's manufacturing sector is tackling, its competitiveness with China is improving.

But for manufacturers that don't want to rely too much on China, switching to India is no easy task. Notorious for its lousy infrastructure and inflexible labor laws, the country has long been a power in industries like software services and business process outsourcing but an also-ran among Asian countries trying to build up their manufacturing sectors.

India Vs. China : China has Forex and Gold reserve of 3,800 Billion Dollars. US has a Forex and gold reserve valued at 148 Billion Dollars only. China is in a Dollar trap. At this time, US needs to consume less and produce more whereas china needs to consume more and produce less. So, if India is trying to take china's position, then we need to re-think about what we are doing.

India has followed a peculiar growth story over the years. While China focused on cheap, high volume commodity production, India has seen high growth in the services sector. The new government has begun its term hitting the right notes with the Prime Minister personally putting his weight behind the "Make in India" campaign.

Right from creating a single window facility for addressing investor concerns, identifying key manufacturing sectors, to creating a common platform to unite state governments, bureaucracy and corporate leaders; the government seems serious in its intent to elevate India's "ease of doing business" rank internationally. Overhauling complex compliance procedures and reforming archaic labour laws will put an end to institutionalized corruption and encourage entrepreneurship. Easing the FDI norms in construction, rail infrastructure and defense should only be the beginning of a series of positive signals.

India is blessed with a large labour pool and admirable levels of judicial transparency. It can leverage its territorial position to play a critical role in the global supply chains. Doubling up as a potential high consumption market can keep demand fluctuations in check as well as save up on the logistics costs. And if it can internally strengthen on three fronts: cost (cheaper labour), quality (high skilled workforce), and supply chain (robust infrastructure), India can call itself the next global factory in future.

United States is searching for another country from whom it can purchase goods from to sustain its consumption. We are trying to take the position of china in manufacturing. What if while serving US we end up in a similar situation in which China is in right now? Why don't we try to serve China instead of US ?

Main factor in China's success is its investment in health and education that provided fuel to its explosive growth. India has under-invested in these key areas and hence its economic growth is poorly supported by quality human capital. Manufacturing stands on keystone of proper coordination between workforce and the technological development. Technology wise we always outsource the sharp brains, so we are surely lagging in that sector.

India's objective is to get where China is today, then we must first try understanding what has brought China into this position; then probably we would be in a better position to understand how can we get into a similar standing. As you can see, majority of natural resources that are being tapped right now are situated alongside the North-Eastern, Eastern, and South-Eastern sides of China. As a result it shouldn't surprise you that with the exception of few refineries that are set up in the northern and north-western areas, all the

industries are situated in these regions.

China's primary manufacturing hubs are not just located close to the natural reserves, they also have easy access to the sea - which aids them in a highly important aspect of becoming a manufacturing giant - **Transportation**. China relies heavily on its ports for all kinds of transportation services, and with the infrastructure China has built to provide assistance to the manufacturing industries, that has helped them grow at a phenomenal rate. The industries that are located on the interior side leverage both road transportation as well as the rivers to aid them with their transportation requirements.

Then comes the second much needed requirement for any industry to thrive - **Electricity (Power)**. China has so far been depending primarily on thermal power plants, and once again, to facilitate the growth of the industries, the power plants have also been situated in nearby areas. This helps the industries with having uninterrupted power supply and helping them thrive.

But, given a choice, I would not want our nation to be tracing the footsteps of China. Why? In order to explain that, we would need to first of all understand the problems with China.

However, while listing them down, I will exclude the one party socialist regime and the tightened policies from the list of problems; because well, if you start listing them down, then this already long answer will simply get out of hand.

I. LIBERALIZATION OF TAX STRUCTURE AND LOAN POLICY FOR MSME SECTORS

The Micro, Small and Medium Enterprises (MSME) sector is often recognized as the growth engine of an economy. It comprises of the main chunk of the exports of India and provides employment to major percentage of population of our country thus playing the key role in the contribution of manufacturing sector . For development of India's manufacturing sector a special emphasis should be given to the MSME sector by liberalizing tax policy and priority lending should be made even more convenient for them.

Statistics of MSME sector

Year	No of working Enterprises (Units in mn)	Employment (Units in mn)	Fixed Investment (₹ Bn)	Production (₹ Bn)	Exports (₹ Bn)
FY 06	12	29	1,881.1	4,978.4	1,502.4
FY 07	26	60	5,007.6	7,094.0	1,825.4
FY 08	27	63	5,581.9	7,907.6	2,020.2
FY 09	29	66	6,217.5	8,808.1	N. A.
FY 10*	30	70	6,938.4	9,829.2	N. A.
FY 11#	31	73	7,734.9	10,957.6	N. A.

The data for the period up to 2005-06 is Small Scale Industries (SSI)
**: Provisional, #: Projected, N. A.: Not Available*
Source: Ministry Of Micro, Small and Medium Enterprises

II. SOLVING THE ELECTRICITY ISSUES

Most of the manufacturing sectors have erratic power supply which makes the situation of production go bad to worse. Solving the issues of electricity supply would solve more than half of problems that the manufacturing sector faces today.

III. SKILL DEVELOPMENT OF HUMAN RESOURCES

Skill development training should be imparted to the people who are interested for working in the manufacturing sector. The people should be taught skills that they could pursue according to their talents, abilities and qualifications. But that's just the tip of the iceberg. We lack a 'culture of manufacturing' prevalent in Germany and South Korea. This primarily includes your best brains not wanting to join the sector. Its outlook is bleak. Manufacturing lacks linkages. The lack of infrastructure pushes up the logistics cost, which at 14 per cent of GDP is one of the highest globally. The lack of a vocational training system like Berufsausbildung in Germany and Austria means lack of skilled labour, and inadequate capital expenditures by successive governments' means high

finance cost. This decreases manufacturing competitiveness and visibility of future investments.

IV. BETTER WORKING CONDITIONS FOR THE EMPLOYEES

The manufacturing industry should equip them with risks and hazards free working conditions taking the proper precautionary steps so as to enhance the productivity of the workers.

Despite intentions to scale up manufacturing since 1991, the industry's contribution to the GDP has declined. Manufacturing has been constrained by onerous regulations and policy, be it labour, land or environmental clearances. Successive governments have failed to implement these politically expensive but vital policies. Policies on taxation and customs are archaic to the extent that it is cheaper to import things like medical equipment rather than manufacture it domestically.

CONCLUSION

Although the ease of doing business score went down to 142 from 134 last year, the World Bank has taken care to distance this down slide from the NDA government which took charge barely a week earlier and World Bank has used data till May 2014 whereas most measures to improve doing business were undertaken subsequent to that. The various measures undertaken by the NDA Government to address issues related to economic growth, delay in Government decisions and reforms in the Labour law, Land law and taxation have kick started the manufacturing sector and shot the GDP growth by 5.7 % in the last quarter. The Modi Government has also signed a staggering USD 35 Billion investment deal with Japan for infrastructure development. If governance continues in the current manner, we can definitely hope to see significant and sustainable growth in the manufacturing sector and progress towards India becoming a global manufacturing hub.

REFERENCES

1. Article: PM Narendra Modi's US visit: Eight highlights http://articles.economictimes.indiatimes.com/2014-10-01/news/54516929_1_prime-ministernarendra-modi-modi-and-obama-saath
2. Economy Profile of India.pdf, Doing Business 2015, World Bank Group
3. Goods and services tax: http://gstindia.com/
4. National Remote Sensing Centre website: http://www.nrsc.gov.in/Publications_Atlas.html
5. Wasteland atlas of India: http://www.dolr.nic.in/wasteland_atlas.html
6. Greenclean guide website: http://greencleanguide.com/2011/01/18/ wastelands-types-andstatus-in-india/
7. Article: Reasons for low employability of engineering graduates http://businesstoday.intoday.in/story/a.-k.-sarkar-s.k.-choudhury-on-engineering-studentsemployment/1/205041.html
8. Article: Growing mismatch between graduate skills, market needs http://www.universityworldnews.com/article.php?story=20140204171742828
9. Ministry of Road Transport and Highways website: http://morth.nic.in/
10. World bank report on Indian infrastructure: http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/SOUTHASIAEXT/EXTARREGTOPTRANSPORT/0,contentMDK:20703625~menuPK:868822~pagePK:34004173~p iPK:34003707~theSitePK:579598,00.html
11. http://indianpowersector.com/home/about/
12. http://en.wikipedia.org/wiki/Electricity_sector_in_India#Demand
13. http://www.infraline.com/details/Overview-on-Indian-Power-Sector-September-2014- 248789.htm
14. CISF website: http://www.cisf.gov.in/
15. CISF stats: http://en.wikipedia.org/wiki/Central_Industrial_Security_Force
16. http:// en.wikipedia.org/wiki/Foreign_direct_investment//
17. www.ibef.org/india-at-a-glance/foreign-direct-investment.aspx
18. www.fdi.in/https://www.iaccindia.com/userfiles/files/FDI%20Manual%20-%20Policy...
19. dipp.nic.in/English/Archive/FDI_Manual/FDI_Manual_text_Latest.pdf