# A Study on "Make India" by Focusing on Opportunities and Key Challenges

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## Introduction

Prime Minister Narendra Modi will inaugurate Make in India Week in Mumbai on Feb.13, and this meet expects participation of over 1000 companies and delegates from over 60 countries.

Amitabh Kant, Secretary, Department of Industrial Policy and Promotions, announced in New Delhi that the above programmee will be held from Feb.13-18 and will be inaugurated by our Prime Minister.

The Secretary, DIPP, informed that the theme of the event will be innovation, design and sustainability and also added that the main aim of the event is to attract more FDI into the country. Kant explained that the global investor community has responded to growing confidence and the FDI in the last 17 months since the launch of Make in India programmee has grown by about 35 per cent when compared to the previous 17 months. Further, he said that the Government has done a lot of liberalization across sectors and opened up every thing except multi-brand. To a query he said that the multibrand retail for FDI is under calibration at political level.

T VMohandas Pai, a former Infosys top executive and Industrialist, said that he has never seen before in the last 25 years, the active involvement of top leadership of Ministers and Bureaucrats and has appreciated the commitments shown by them.

The Central Government of India will hold the "Make in India "week from Feb.13 in Mumbai with an aim to promote India as an important destination in increasing its share in Global FDI. Addressing the Concluding Ceremony of the three-day industrial meet organized by the Chamber of Small Industries Association, (COSIA) and Micro Small Medium Department, Subash Desai, Industries Minister, Maharashtra, urged small industrialists to take active part in the "Make in India 2016 ", which will be held in Mumbai in February. The Minister added, " unless the Make in Maharashtra programmee is implemented successfully, the Make in India initiative will be incomplete ". "Programmee of skill-development, helping sick units and also helping them by providing capital were some of the measures taken by the government to assist small units ", the Minister said.

Both he and Devendra Fadnavis, Chief Minister of Maharashtra, toured Foreign Countries and returned with commitment from the industries that they will put up their units in Maharashtra. The Minister also claimed that General Motors will be putting up unit worth Rs.6400 crore in Maharashtra and Foxconn will also put up their unit in Maharashtra.

According to the Minister, once the big industries come up in Maharashtra, the small ones will also automatically come up and flourish in their business.

Thane MP, Rajan Vichare, Thane District Guardian Minister Eknath Shinde, and COSIA President Appa MR Khambete were also present on the occasion.

The Make in India programmee has enthused keen interest among all States and particularly in West Bengal, Andhra and Tamil Nadu where there is overwhelming response.

### Conclusion

We have vision for India, its growth story. It has lot of potential. When you have a billion strong population, we have to make sure that it becomes an asset and not a liability. The way to do that is to increase their productivity. That's what China has managed to do year after year – grown labour production in double digits. Once you have the framework, there are tools that have to be used to achieve the goal. This Bridge at the Bandra- Worli sea link in Mumbai is a tool ; reducing the travel time is one of the tools to make people make more productive. Then there is health, education and access to technology. It is a simple motion, how do you help people produce more. It is also low hanging fruit, and can bridge political and ideological divides. It can work better than a framework that looks at measures like increasing FDI in retail, or any other sector.

India is a complex country, the strengths of India are its democracy and free open society. Companies that come and invest in India do so because they admire the democracy and the open society that we have here.

Make in India programmee seeks growth from manufacturing in India. India has seen a decade or more of service-industry led growth. There need not be a trade-off between service and manufacturing. If we improve the climate of productivity, the activities that rely on it will increase, be it service or manufacturing. For instance, for White goods, there is huge increase in demands, shipping is expensive, naturally we want to produce here. If we produce to serve the local market, there is a lot of scope for that. However, if we are looking at manufacturing for exports, not only we will be dependent on the global market conditions but we will also be competing against other global exporting hubs.

ACs can be a tremendous market in India, with the temperatures we have, and the ancillaries like Compressors and Casings. But it won't happen unless the productivity gap is reduced. So make in India is a step that should be taken after the primary step, which is increasing productivity.

Five things that India should do to increase labour productivity.

First is infrastructure. Then intermediate enabling technology. If Robots are needed then get them or get the companies that manufactures Robots to set up here first. Third is of course health, it means a big deal for the people.

Then longer term there has to be skill development and lastly power : India needs to continuously increase its power production.

The e-commerce is the latest invention in our marketability of the commodities and the products and they are very efficiently competing with the brick and mortar industries / establishments. E-commerce is a great tool for productivity. Alibaba was founded in 1999. By 2014, they had 800 million people buying on their platforms and 8 million merchants listed as sellers. They had revenues of \$ 8 billion, which is just the commission they earned. And they had recorded 60,000 transactions per minute. A lot of MNCs now entering China are not opening physical stores. COSTCO for instance, will use Alibaba in China. By filling the instituitional voids, we can create values.

The question on labour productivity often revolves around labour laws in India. That is the secondary step. The primary step is to provide the enablers. If MNCs make them more productive, then we should get them, if not then do not. Economic history is clear. There are two main drivers of wealth creation : productivity enhancement and innovation. Now innovation is often the second hill. The first and the lower hill to climb is productivity enhacement, and creating common language around it. Defence Panel favours five areas for 'Make in India '; 49% FDI Cap for private strategic partners.

A Key Defence Ministry appointed panel to identify private sector players that will be accorded special strategic partner status for major military manufacturing projects has identified five priority areas for Make in India in the defence sector and has recommended a strict three- step selection process. (for projects worth over Rs. 10000 crores.

The panel led by former DRDO Chief V.K.Atre has identified ten segments of projects- for each of which one private sector company will be chosen- but has said that in the first stage, only five should be prioritized. This includes aircrafts, helecopters, submarines, armoured fighting vehicles and ammunition.

The recommendations will restrict a single company to a particular segment. For example, a company like L&T, would be able to qualify only for sector like submarines as a strategic partner and will have to forego other areas where it has expertise like warship and guns.

The committee has recommended that the process should be completed within nine months after a thorough verification of financial records of companies applying for the partnership. A new strategic partnership wing is also recommended to be set up in the Defence Ministry.

For selection of partners, the panel has recommended a committee led by sector experts that would follow a three step process to identify private players. The first step would be composite entry gate based on financial and technical parameters. This would include their past performance, R&D capabilities, existing facilities for manufacturing as well as quality assurance.

Several private companies have shared concerns about the selection about the selection parameters being too restrictive and unfavourable to new entrants. Even existing players feel that the restrictions on more than one company being selected for more than one segment will hamper investments already made by them in different areas from aerospace to artillery. However the Ministry is to fine tune the criteria for selection.

Defence Industry, Make in India.

Challenges Before Manufacturing.

There is a message in our Prime Minister's new campaign for ' Make in India '. The thrust is to increase share of manufacturing from the current level of 15 per cent of Gross Domestic Product. To 25 per cent and create additional employment opportunity of ten millions per year. Governor of RBI, Raghuram Rajan is of the view that the Government is putting too much of thrust on export-led growth and should give primacy to " Make for India ".

Defence Manufacturing came out of the stranglehold of the Public Sector Undertakings-Ordinance Factory monopoly with liberalization in 2001 with 100 per cent private sector participation and the recently announced 49 per cent in the Foreign Direct Investment. Subsequent polices aim at higher self reliance in Critical technology, bring in state-of-art technology and long term partnership with Original Equipment Manufacturers.

Defence Industry reflects a nation's concern for manufacturing capability. The capability of our defence industry in terms of value addition, self reliance in critical technology, and policy initiatives so far and their impact needs to be examined, and a possible synergy between 'Make in India ' policy and defence industry capability needs to be examined.

Defence Manufacturing and Challenges in Self-Reliance.

The defence services account for nearly Rs.2.29 lakh crores of the Central Government Budget which is nearly 2.5 per cent of GDP and 13 per cent of the Central Government expenditure. The trend of allocation to revenue and capital acquisition schemes is given below:

Table 1: Service/ Department wise Break up of
Defence Expenditure. (Rs.Cr.)

203499	229000	170913		181//5
15282	Total	170913		181775
R&D	9893		9794	10868
831				
2481 DGQA	665		695	766
54217 DDP-DGOF	( - )456		( -) 267	1298
AIR FORCE	45614		50509	57708
118377 NAVY 37808	31115		29593	33393
2014-15 Rev+Cap. ARMY	84081		91450	99464
Actual	2011-12		2012-13	2013-14

### Source : Annual Report 2013-14, MOD.

While the increase in the revenue allocation roughly matches with the whole sale price escalation, the Capital Acquisition Budget has witnessed significant growth of around 20 per cent per year. Capital Acquisition of which the value of the production of the Defense PSUs and the OFs account for the following :-

It is seen from the above that while the average yearly increase in the Value of Production of Defence PSUs is around 5 per cent per year, in case of OFS it is only 2 per cent. The value addition for OFB is very high about 85%. PSUs such as HAL and MDL show a poor level of value addition as they are largely system integrators while MIDHANI and BDL have contributed handsomely to indigenization. The higher indigenization in case of OFBs is largely attributable to the low end technology.

Over the decades, India has been availing of technology through licence agreements from Russia and Western Countries.The exceptions are some of the missile systems, small arms and their ammunition and tanks where technology has been indigeneously developed by the Defence Research and Development Organization (DRDO). The Light Combat Aircraft (LCA) TEJAS with final operational clearance will be a major "Make in India "programmee. Indigenization has effected a substantial reduction in cost of the systems due to good facilities and fairly well-trained labour force. For example HAL has achieved 55% indigenization and 45% in cost reduction an 18% as savings.

 Table 2: Value of Production and Value Addition PSUs and OFB (Rs.in crore).

Name of the PSUs Value added	2011-12	2012-13	2013-14
HAL 39%	12693	14201	15296
BEL 41%	5793	6290	6140
BEML 39 %	4077	3359	3201
MDL	2523	2290	2709
23% GRSE	1293	1529	1550
35% GSL	676	506	512
37% BDL	992	1177	1793
50% MIDHANI	496	537	555
57% HSL	564	483	403
- OFB 85%	12390	11984	11234
Total 50%	41501	42360	43395

#### Source : Annual Report 2013-14 MOD.

## Self-reliance Trends.

Self-reliance trends in defence acquisitions present a dismal picture. A Committee under Dr. A.P.J. Abdul Kalam, the then Scientific Advisor to the Raksha Mantri, had recommended that India should ramp up their quotient from 30 per cent (1995) to 70 per cent by (2005).

The following table, brings out how the Self Reliance Index has remained sticky at around 30 per cent.

 Table 4 : Total Acquisition and SRI : Trends.

YEAR	TOTAL	INDIGENISATIION	SELF RELIANCE
	ACQ.COST	ACQ.COST	(%)
	( Rs.Cr. )	( Rs. Cr. )	
1993-94	399	1200	30%
2000-01	11164	3400	31%
2005-06	24464	7828	32%
2009-10	38258	12251	32%
2012-13	49578	26260	35%

Source : Table prepared by Dr. S.N. Mishra..

The principal reason for this state of affairs is our poor design capability in critical technologies, inadequate investment in R&D, and our inability to manufacture major sub-systems and components. The Transfer of Technology Route has provided India with the know-how without providing the clue for know why. It is due to this that even for an upgrade of the systems, Defence PSUs are critically dependent on the original licensors.

The following table brings out the gaps in critical technology of different systems.

Table 5: Critical Technology & Gaps.

Sl.No	System	Gaps
1 Coating Turbine	Gas Turbine Engine	Single Crystal and Special Blades FADEC
2	Missile	Uncooled FPA Seekers
3	Aeronautics	Smart Aero-structures Stealth Technology
4	Material	Nano Materials Carbon Fibres
5	Naval Systems	Super Cavitating Technology
6	Sensors	AESA, RADAR, RLG, INGPs
7	Communication	Software Defined Radio
8	Avionics	Gen III,II Turbines
9	Surveillance	UVAs, Satellites

Source: DRDO, BEL and HAL.

From the table above, it would be seen that the major deficiency in terms of capability is in the areas of propulsion, weapons and sensors. Some of the critical technologies where progress made by the DRDO has been abysmally poor are Focal Plane Array (FPA), Active Electronically Scanned Array (AESA), Radar and Stealth Technology. India is presently engaged in the design and production of Collaboration with Russia for a Fifth Generation Fighter Aircraft (FGFA), that will have Stealth features. The Offset Policy Guidelines (2012) has also allowed multiplier for Critical technology areas such as FPAs, NANO Technology-based sensor, fibre lasers and THZ technologies.

The Defence Production Policy (2011) aimed at achieving substantative self-reliance in design, development and production of critical sub-systems by forming Consortia of JVs by involving academia, and R& D instituitions. The impact of all such policies on FDI infow, export augumentation and long term partnership has been quite disappointing.

Value addition in the Global Value Chain for India was only one per cent in 2009 as against nine per cent in China and Germany. Countries such as China and South Korea have become major manufacturing hubs in aeronautics and ship building technology by being very liberal in their FDI policy and providing high modicum of 'Ease of Doing 'business compared to India.

R& D Allocation.

Table 8: Cost of Capital.

Global Comparison. Source: The Economist, 13th. Dec. 2014.

What is interesting to also note that most of the BRIC countries are bedeviled by the high cost of Capital and inflation.

Lessons for India's Defence Industry.

The Defence Industry has to be sensitive to skill requirements in order to absorb high technology which come as part of TOT. One of the predominant reasons for Japan's phenomenal growth since the 1950s has been their higher skilled labour force which could absorb front-end technology from US quickly and adopt it to harness commercial success through dual use technology. Japan's success in electronics and automobile is testimony to this.

In India, on the other hand , the TOT experience reveals that the technology absorption has been inordinatey slow leading to continued dependence for our foreign collaborators well beyond the contracted period. Experience of HAL in terms of the MIG series of aircraft and SU-30 and for MDL for producing Scorpene submarines are grim remainders of our poor high skill absorbing capability.

## Conclusion

India is witnessing a significant stickiness in its manufacturing sector which is bedeviled by the huge presence of small scale and informal sector that are bereft of requisite skill levels and economy of scale. Their access to capital is also seriously impeded. However, the manufacturing sector provides a wonderful opportunity for India to be part of the global supply chain and generate high levels of employment opportunity to absorb around ten million young Indians who will come into the market in search of employment. They also need to be properly skilled and networked with their global peers.

The Defence Industry, be it public sector or private, has to be the part of the national manufacturing policy and the Defence sector often chooses to distance itself in its interface with other civilian sectors. There is opportunity in plenty in areas such as aerospace and ship building, where there is considerable Civilian and Military market. Lack of design capability to manufacture critical subsystems remain a major handicap. The DRDO remains mired in inordinate delay, huge cost over runs and deficient in critical technological areas like ' seekers ' and ' stealth '.

Public Private Partnership, Joint Venture with foreign OEMs and Design Houses will require bolder policies such as FDI Ceiling higher than 50 per cent and the political will to mentor and hold together the different stake holders who are often at cross purposes. The new Prime Minister has set his foot in the right place. The Ministry of Defence, must strive for better synergy with other manufacturing sectors to "make in India "the mantra for days ahead.

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