Relevance of Manufacturing in Contemporary Indian Economy and Significance of Skill-India and Make-In-India Campaign

Dr Vikram Chadha
Professor of Economics
Punjab School of Economics
Guru Nanak Dev University,
Amritsar (Punjab) India

Dr Neeru Chadha
Principal,
R.R. Bawa Dav College For Women,
Batala (Punjab) India

Pooja Choudhary
Research Scholar,
Punjab School of Economics
Guru Nanak Dev University,
Amritsar (Punjab) India

Abstract

In the historical evolution of economies, they grow from primarily agricultural stage into industrial manufacturing stage, and then enter the stage of developed tertiary services sector, with an overbearing contribution to employment and GDP. But in case of India, the economy, since the economic reforms, straight away landed in the services sector stage without the completion of the stage of a mature manufacturing economy. So in a way India skipped the stage of a mature manufacturing economy and thus remained bereft of many externalities that a time-tested manufacturing sector can bestow upon a rapidly developing economy.

Thus the main objective of our paper is to highlight the specific role that the manufacturing can play in plugging the ills of the contemporary economy of India in its current phase of development, like unemployment, capital formation, skill formation and diversity of production to meet with growing needs of the society economically. This is thus consistent with the on- going Skill- India mission and Make-in-India programmes, which is hinged on improving ease of doing business and has the potential to attract foreign manufacturers and FDI to develop India as the global hub of manufacturing in the world.

Keywords: Manufacturing, Indian Economy, Skill-India, Make in India.

Introduction

In the historical evolution of economies, at low levels of per capita incomes economies are primarily agricultural economies whereby agriculture contributes maximum to GDP and employment. But as PCI rises, leading to a change in the pattern of demand favoring final use goods; and also capital accumulates and latest international technology and capital become available, economies tend to industrialize, which in turn begin to contribute the maximum to national income and employment. However with further escalation of incomes, as economies achieve high mass consumption stage, people desire less of manufacturing, and instead spend more on services such as, health, education, tourism, transport and trade services, such that tertiary/service sector assumes precedence over others. This thesis has been widely empirically tested by Kuznets (1965); Chenery (1979); Thirlwall (1983); UNIDO (1983).

India during the colonial era was basically in the primary producing stage. In the real sense the programme of industrialization commenced

since the 2nd Five Year Plan in which the planners envisaged to comprehensively develop India's manufacturing along with infrastructure and support services in order to achieve economic and technological self-reliance. Till the 5th Plan, industry and manufacturing got a major impetus in terms of public outlays. But since then the tilt shifted in favour of agriculture and small and cottage scale manufacturing; nevertheless manufacturing industry continued to receive calculated attention particularly favouring employment oriented industries. Although by the late 1980s, almost 95 percent of India's exports consisted manufactured goods, yet manufacturing growth rates had plummeted during 1965-80. But nonetheless, manufacturing was always accorded a prominent position in the development strategy, and its share in India's GDP was spontaneously rising as well, as would be evident from table 2 below.

But since the introduction of economic reforms in early 1990s, manufacturing has been gradually sliding down, and India instead hop- jumped into the third stage of development of tertiary/services sector, without fully realizing the full potential of manufacturing growth. Consequently the share of manufacturing in national growth has stagnated and India failed to capitalize the externalities of manufacturing sector nurtured and propelled all through from mid 1950s to early1990s.

But now the time has come when high income growth has to be sustained, along with job creation and rapid capital formation based on a high growth of investment and export growth, with inclusive growth orientation, that manufacturing must get a deep nudge. So the prime objective of the present paper is to highlight the relevance of manufacturing growth for the contemporary Indian economy. In the scheme of discussion we plan to analyse the status and growth of the manufacturing sector in the Indian economy, and highlight the constraints on its growth. Subsequently we shall endeavour to focus on the relevance and imperative of giving a strong surge to this sector particularly in the present circumstances, and thus the recent initiatives of Make-in-India and Skill-India development programmes are in consistence with rapidly developing manufacturing and also to induce larger FDI inflows into the economy.

Data and Methodology:

The data for the present study have been taken from sources like, various issues of Economic Survey of India; Statistical Abstracts of India; Annual Survey of Industries; Five Year Plan Drafts; CMIE Reports; RBI Bulletin; Currency and Finance, and other books, journals and documents.

The scope of the study is confined to the manufacturing sector alone, which comprises all small, micro, medium, large, giants and conglomerates in the domestic and MNCs producing in India. The time reference of the study is the period since the economic reforms of 1990s.

Mainly tabular analysis has been carried out to analyze data and trends, base on ratios and percentages. Similarly to compute annual compound growth rates, the following function was fitted:

$$\mathrm{Yt} = \mathrm{a}\ b^t e^{\mu t}$$

Transforming the equation in linear form:

$$\mathrm{Log}Y_t = \log \mathrm{a} + \mathrm{t} \log \mathrm{b} + \mu_t$$

$\mathrm{Log}Y_t$ = value of dependent variable whose growth rate is to be computed.

t = time trend variable; and,

μ = stochastic disturbance term; and a and b are constants

From the estimated value of regression co-efficient 'b' the compound growth 'r' has been computed as follows:

r = antilog (b-1)*100,

where, b is the estimated value of the ordinary least square (OLS)

Results and Discussion:

Transformation of the Sectoral Pattern of the Indian Economy:

Consistent with the Kuznets hypothesis, the sectoral pattern of the Indian economy has been spontaneously transforming since independence as the economy has been growing both in its national income as well as the per capita incomes overtime. Table 1 shows a marked declining trend in the primary sector's contribution to GDP and employment; and a slowly rising share of the secondary sector and a fast growing tertiary sector. During 1950 to 2015, as India's GDP and per capita income have grown, the share of primary sector in GDP and employment has been steadily receding, while the share of the services/tertiary sector has escalated from 27.5% to 52.6%; but the share of the secondary sector could slowly scamper from 15% to 29.4%, and in employment from 10.6% to 26.7%.

Contribution of Manufacturing to GDP and Employment:

But if the manufacturing sector is segregated from the overall secondary sector, the scenario is still more disturbing as depicted in table 2. The table purports that the share of manufacturing just grew up by 1996-97 to barely 22.5% of GDP, but has since declined and stagnated around 15%. Even its contribution to national employment has declined and stagnated around 12%. This certainly does not augur well for a fast developing economy, because in contrast manufacturing contributes 32% of GDP in China; 31% in Korea; 24% in Indonesia, and 25% in Malaysia (Government of India, 2015)

Manufacturing in India constitutes micro, small, medium and large industrial manufacturing units. About 94% of these are micro and cottage scale units; 4.89% are small units, and only about 0.17% are large industrial enterprises. These manufacturing units produce a vast spectrum of manufactured items ranging from artistic handicrafts, to sophisticated state-of-the-art capital and engineering goods.

Growth and Status of Manufacturing in India:

India's manufacturing was known the world over since ancient times. Before the advent of the British in the 16th century, the Indian craftsmen and artisans manufactured artistic artifacts including textiles, wooden and metal wares, ivory and enamel work and so on. But the avaricious British commercial policies, especially since the Industrial Revolution of the last quarter of the 19th century, the Indian manufacturing was devastated, described as the 'de-industrialization' of India, which manifested in relentless displacement of the artisans and skilled workers. The Indian cottage and tiny manufacturing workshops were squeezed out by the factory industry steered by the British and foreign manufacturers. The discriminatory British commercial policy did not encourage any worthwhile industries and indigenous entrepreneurship.

Thus at the time of independence the Indian industrial scene presented a pathetic picture, with only some superficial consumer industries, but hardly any heavy capital goods and engineering goods industries. There was abysmal shortage of skilled and educated industrial workers, and most of the essential inputs and intermediate goods were high priced and in short supply. So after independence Indian planners envisaged a development strategy for achieving economic and technological self-reliance, which could not have been possible without a strong basis of manufacturing industries. So, particularly since the 2nd Five Year Plan, a resolute drive for massive industrialization was launched which was mainly oriented with the development of heavy investment oriented capital and engineering goods sector; intermediate goods industries including oil refineries; steel, fertilizers, heavy chemicals and machine tools industries, and so on.

In the first three Plans (1951-66) the emphasis was on the creation of a strong industrial base. Large investments were made in iron and steel; engineering and machine building industries. So manufacturing got impetus. Table 3 exhibits manufacturing growth during 1951-2015. The table brings forth the fact since the very beginning of the planning era, the growth of manufacturing has been substantial. Though inspite of heavy industrialization development strategy till the end of the Fourth Plan, the industrial growth was not impressive, and as a matter of fact, the whole phase of 1965-80 witnessed a strong decelerated growth of industries mainly due to Indo-Pak wars; Indo-China war of 1960s and oil crisis of 1970s; and droughts and suspension of foreign aid etc. Various infrastructural weaknesses continued to hamper sound industrialization. Since 1990s the structural readjustment process gave a little setback to industry such that consumer durable good industries recorded a –ve growth. Though industry growth revived again since 2003, but again slumped since the world recession of 2008, though quickly recovered in 2010-11 with over 10% rate of growth. However, the most dependable consumer good and consumer durable good sector, that had been the mainstay of industrial growth since the beginning, now started showing signs of serious slump due to plummeting incomes and demand all over the world. Table 4 reflects the manufacturing sector growth rates during 1981-2015.The table highlights that except for the brief period of 1995-96, the manufacturing sector has been showing tardy growth.

Table 5 projects a massive contribution of the manufacturing sector to the Indian economy. Manufacturing sector is a monolithic sector of the economy such that total capital invested has increased by about 12%; total employment has increased at relatively low rate of 1.84%, though their emoluments grew at about 11%. Total value of manufacturing exports increased at about 15%. Profit growth has been about 18% and the rate of growth of capital has been 11.86%. As mentioned earlier, employment growth has been the sector's Achilles Heel because due to rising capital intensity of production, it has resulted in 'jobless' growth since economic reforms.

Why Did India Spontaneously Hop-Jump the Stage of Manufacturing Maturity Particularly Since the Economic Reforms of the 90s!:

As mentioned earlier that as a reaction to the exploitative colonial rule, India undertook a plan of massive industrialization since 1950s. Although the economy struggled to achieve desired results and in achieving planned targets, yet a strong foundation for a robust manufacturing sector had been laid. Since the Green Revolution of the mid 60s, it was thought that now Indian manufacturing sector would consolidate by utilizing surplus incomes and labour from the rural hinterland. India had entered the stage of Take-Off since the early 1970s and with rising Plan allocations and financing capital investments, manufacturing sector was being galvanized as the lead sector shaping the growth trajectory of the economy. As incomes and demand were rising the manufacturing sector would afford a wide spectrum of diversified goods for 'rising expectations' of a growing economy. Inspite of the fact that manufacturing was resulting into inefficiencies and high cost of production due to all kinds of bottlenecks, yet the economic and political forces were geared to reinforce manufacturing sector- whether public or private; or small or large. Manufacturing was slowly and spontaneously coming of age till the economic reforms of 1990s.

Economic reforms hinged on globalization and liberalisation of economic activity. The economic philosophy of the reforms believed in unshackling trade, exchange and production. Reforms catalysed free trade and

the movement of factors, capital and technology across countries without barriers. All tariff and non-tariff barriers were tipped to be either diluted or scrapped. In essence, the reforms envisaged to transform the whole world into a well connected village- without restrictions and without interferences.

Freedom of transaction and exchange, and free movement of factors, capital and merchandise obviously necessitated unencumbered communication and exchanged of information on factor and commodity markets all across the globe. The growth theory of the 1990s based on endogenous growth models (Rivera-batiz and Romer, 1990) also attached a premium on human resource; ideas and skills and education and R&D, albeit all intangible capital assets endogenously determining the growth process. Thus information, knowledge and communication became the pivots of free exchange and economic growth. Information exchange and technology, coupled with the dot com revolution brought the information technology and communication at the centre stage of economic progress.

The deluge of information technology involved the use of hi-tech electronic gadgets like computers, hardware and software and telephony, both wireless and digital; internet and cloud operations and on (Friedman, 2005). All this required the intervention and manning by scientific and skilled manpower, which India had in abundance and that too extremely inexpensive compared to American and European standards. India had been the second largest reservoir of trained, professional S&T manpower owing to the development strategy of the post independence era(Chadha and Sachdeva, 2015). The Indian scientists, engineers and technicians became in high demand and the IT industry saw explosive growth. With the surge of the application of IT in vertical and connected sectors- basically services sectors including financial, construction, insurance, trade and transport, health and education and on, the service sectors got a burst of growth, and the manufacturing lost sheen and nudged to the background. That's why the manufacturing sector contribution to India's GDP and employment stagnated more or less since 90s, and India skipped into the development stage of perceptible services sector growth without fully maturing the manufacturing activity.

Why is Manufacturing Relevant for the Contemporary Indian Economy?:

As an antipathy and abhorrence against the avaricious colonial policy, after independence India has been assiduously endeavouring to build up and strengthen its manufacturing sector. Particularly since the 2nd Five Year Plan, manufacturing industry was given a place of prime importance in the national strategy of development. That is why over 1950 to 1990, the proportion of manufacturing exports in India's total export jumped from 45% to 95%. The policy of import substitution further boosted manufacturing in domestic markets. Though slow, inefficient and high cost due to myriad controls and government interference, manufacturing nevertheless produced diverse type of goods to satisfy varied demand from the Indian consumers as well as for the export markets. In the present context, when under the shadow of globalization and westernization, the demands of the Indian consumers are diversifying and multiplying, the manufacturing sector, by transforming raw materials and intermediates into final use goods, is hugely catering to the needs of the society, government departments and strategic orders. By transforming inputs into final output, the manufacturing sector is adding humongous value to the Indian economy. Whereas the share of manufacturing in India's current GDP is as low as about 15%, but it is contributing 23% of the country's industrial output.

Industrial manufacturing is unequivocally known to be the strongest sector in generating externalities, which make the best use of scarce capital resources .A small investment in the manufacturing sector will set in a ripple effect for a large generation of income and output in the economy. Hirschman (1958) argued that the impact of public investment would be maximized if it was concentrated in industries with significant linkages with other industries in the economy. Linkages in a fast developing country like India would be maximized if large investment is made in the manufacturing of iron and steel, engineering goods, petro-chemicals; fertilizers and other heavy chemicals and machine building capital goods manufacturing (Kirkpatrick, Lee and Nixon, 1985). Brazil; Korea and India have been investing heavily in heavy investment industries since the 50s which had a multiplier effect on income and output growth in these economies.

Manufacturing sector growth is more sustainable. Even in the present scenario of world recession, whereas agriculture and allied sectors grew at 4.2%; -0.2% and 1.1% respectively during 2013-14; 2014-15 and 2015-16; manufacturing grew at 5.6%; 5.7% and 9.5% respectively during the same years. Though the services sector growth is comparable at 7.8%; 9.8% and 9.5% respectively (Government of India, 2015), yet manufacturing creates hard core assets and physical capital formation; while the services sector is a bubble and their financial assets are share and stock prices based which are appended to the growth of the more durable manufacturing activity. Manufacturing sector contributes about 20% of the gross capital formation in the secondary Industrial sector

Manufacturing opens vistas for ample scientific and technological research and innovation, which in turn create avenues for a more diversified productionand employment. Though the manufacturing sector is junked for so called 'jobless' growth since economic reforms such that the organized sector employment fell from 12.2% to 10.5%

(which constitutes barely 8% of the industrial employment in the country) during 2005 to 2012, yet about 80% manufacturing happens in unorganized micro and small industries which is a substantial sector in generating employment for over 7 crore people. Thus manufacturing has a tremendous scope for job creation if appropriate policies pertaining to low capital intensity are pursued, because till now employment in India's manufacturing has shrunk due to rising capital intensity resulting in plummeting employment elasticity of out from about .65 in the Third Five Year Plan to .17 during the Tenth Plan. But still the employment elasticity of output in manufacturing happens to be 0.9 in comparison to -0.5 in agriculture and 0.5 in services sector. That is why under the New National Manufacturing Policy of 2011 and 2014, the target is to raise the contribution of manufacturing to GDP to 25% by 2020 so as to create 120 million new jobs.

Constraints on the Growth of Manufacturing in India:

• Rising capital intensity and declining employment elasticity of output: Although manufacturing comprises micro and small units (almost 97%) yet they have not been able to generate enough employment in the economy. Inspite of the fact that average wage of Indian labour is much lower than elsewhere, and India is a labour surplus country, yet the manufacturing employment is just 12% of the aggregate employment. The basis reason is the rising capital intensity^1of manufacturing and declining employment elasticity^2of output (Hasan, Mitra and Sundaram, 2008)

• Acute Skill Shortage: Manufacturing requires specific skills among labou. Out of an approximately 55 crore people constituting India's labour force, hardly 3.5% to 5.5% of this may be categorised as skilled workers, while in China 47% of the labour force is skilled; in Germany 74%; in Japan 80%,; in South Korea 96% and so on. Although India is the second largest reservoir of S&T manpower, and turns out about 6 lakh engineers every year, but most of the engineers either go abroad in search of greener pastures; many become 'babus' with administrative services in the states or central governments, and only about 300 engineers end up doing Ph.Ds. So inspite of the fact that India has a large manpower technically and professionally equipped with technical know-how, yet the country remains bereft of the critical skills required for a prolific manufacturing sector. That's why inspite of number of concessions to foreign manufacturers, India fails to be a favourable destination for FDI investors. But now to equip our population with critical skills, since 2013-14, under Skill-India Mission about 67% of Indian labour force is planned to be skilled (Chadha and Kaur, 2016).

• Lack of ancilliarisation: The micro and small units have flourished around the large industrial facilities, but the relationship has not been institutionalized regarding technology transfer, financial assistance and preferential purchases from such small units. Thus these small manufacturing units have been left to fend for themselves unlike Korea and Japan where small industries are dovetailed to large nodal unit and develop as ancillary relationship with the large organized unit.

• Unhealthy and unfair business policies are being practiced overtly or covertly that discourage competitive manufacturing. Cartelization; market and price fixing agreements are clandestinely contracted to stall new competition.

• India is ranked 130 among 189 countries in the ease-of-doing business by the World Bank in 2016. Businesses annually required 70 clearances and some 100 odd returns need to be filed each year. That is hampering smooth growth and is exasperating. Inspite of delicensing and deregulation, rent-seeking behaviouor of babu behind the clearance desk is imminent and rampant. Thus lack of governance and single-window-clearance of projects discourages manufacturing initiatives.

• Indian manufacturing is facing a dire infrastructural deficit. Per capita energy consumption is just 700 Kwh compared to 3000 Kwh in China; 12000 Kwh in the US. Power availability for manufacturing industry is encountering 7-8% deficit resulting in frequent power tripping and cuts. Moreover electricity is 3 times higher for manufacturing sector as compared with that in the household sector for which the electricity expenses are highly subsidized. Likewise, manufacturing is further diminished by high rail freight changes and low technical and industrial services support.

• Although the industry has been rid of licensing and the sinister babu-raj since the economic reforms, but more pragmatically corrupt practices and bribery have gone on surreptitiously which hamper efficiency and (motivation)3. This is particularly true of the certification of land use; claiming environmental clearances; land acquisition procedures and so. About 1200 regulations apply for compliance3 by MSME units, which practically hinders smooth working of manufacturing.

• High cost production and non-availability of low cost commercial bank credit raised the capital costs for the medium and small manufacturing rendering these uncompetitive. Real capital cost for Indian manufacturing is 4-5% while global firms realize only 1-2% capital costs including the cost of borrowing adjusted for inflation. Besides, many manufacturers avoid taking bank credit because of high collateral demanded and unknown procedures for contracting loans. Banks have adopted stringent measures in lending procedures due to the rising incidence of NPAs to the tune of Rs. 60000 crore. Although

10% of bank lending is reserved for MSME sector, but due to difficult procedures most of these reserved funds with banks for MSME units remain unutilized.

(VII)How to Make Manufacturing Relevant for Contemporary India' Growth:

(a) Manufacturing growth rate to be accelerated to not only absorb new entrants to workforce, but also to propel the existing workers with low productivity into high productivity manufacturing.

(b) By improving business and investment environment by simplifying and streamlining industrial procedures, and by persuading and shaming the officials to abjure corrupt and greedy practices to cut red-tape. Corruption and bribery seeking is bound to become a recluse in the contemporary event of demonetization in order to stamp out black money and assets. Business governance and climate will definitely improve to attract foreign investors.

(c) Rationalization of existing laws and statutes, simplifying regulation, licensing requirements that impede investment process.

(d) Transforming the nature of relationship between the Government and businesses for more congenial, transparent, confidence and trust building for effective governance. Ethical norms in work culture and a collaborative approach towards workers.

(e) Promoting cluster approach and integrated infrastructural facilities under technology park schemes for concomitance of technological innovations-technocrat innovators and entrepreneurs- provision of venture capital for new technological enterprises-marketing and trade consortiums should be simultaneously provided (Chadha and Kaur, 2016)

(f) Pollution control. The current haze and smog over the large parts of Northern India would be a great dampener for prospective foreign investors. Measures will have to be taken afoot to deal with the menace of polluted environment, e.g. only last month many countries issued advisory to their citizens to avoid visiting India in the times of thick smog. So cleanliness and clean water, air and social mores would attract more investments in manufacturing activities.

(g) Finally, the Government-Labour and business organizers- all the stakeholders in manufacturing development will have to forge a mindset for promoting a strong- labour oriented and job creating manufacturing sector; and to apply collective energies for building a globally competitive manufacturing in India.

(VIII)Relevance of Make-in-India Campaign and Skill-India Mission in Strengthening India's Manufacturing and Attracting Global Investors:

As a part of India's New National Manufacturing Policy 2014, the Make-in-India campaign was formally launched to encourage and motivate foreign and domestic investors to produce in India so that ample employment opportunities for absorbing Indian labour and accentuating the rate of capital formation and technological growth of manufacturing sector.

The mainstay of the Make-in-India programme is to make the investment climate so propitiate and conducive for Indian and foreign manufacturers by acerbating the ease-of-doing business through streamlining the regulatory regime and by putting in place a transparent governance and quick disposal of proposals and expeditiously applying procedures involved in project setting and commissioning. The programme covered 25 sectors initially which would become absorbing houses for labour through job creation and skill enhancement. These sectors include; automobiles, chemicals, IT, pharmaceuticals; ports and aviation; leather; tourism, hospitality, health and railways etc.

The underlying principles of the Make-in-India programme would be to promote sectors for manufacturing to minimize impact on environment; to produce high quality product with zero defect specifications by accomplishing highest standards of manufacturing.To reinforce the Make-in-India programme, foreign equity caps were raised, e.g. in defence sector the FDI cap was raised to 49%; in railway infrastructure raised to 100%; in space upto 74%; in media upto 26% and even upto 100% in many of the selected sectors in the shortlisted 25 above such sectors. Due to these measures, The United Nations Conference on Trade and Development (UNCTAD) World Investment Report, 2012 in its analysis of global trends and sustained growth of FDI inflows continues to report India as the third most attractive location for 2012-14 (Government of India, 2015).

Under the above initiative a total of Rs.1.10 lakh crore (US$17billion) of investment has already flown into India during 2015-16; and many companies like Samsung, BMW: Hitachi; Foxcon; Lenovo and so on have promised to set up their production units in India. As per the World Investment Report (Roy, 2016), India's FDI inflows have inflated from $35 billion in 2014, to $44 billion in 2015. However in 2016 it marginally decreased to $40 billion. Though China received $136 billion FDI in 2015, yet India is also among the top 10 destination countries for FDI absorption. This definitely is the outcome of India's improved ranking of ease-of –doing business indicating a much improved investment climate and governance.

The Make-in-India campaign had to be launched in conjunction with the Skill-India Mission because till now it was observed that the foreign investor did not have incentive to manufacture in India since doing business was not transparent; governance was amiss; investment climate was

hostile; red tapism was proverbially ubiquitous in all institutions; plethora of regulatory rules and procedures made it extremely difficult for the businesses to work.

More over even if the investors wanted to produce in India, the labour was neither skilled, and nor the labour laws supported competitive manufacturing. As per estimates discussed above nly about 3.5% of the Indian labour force is critically skilled to support the modern state-of-the-art manufacturing.

So to back up the Make-in-India programme the Skill-India Mission was propagated along with reforming the labour markets by increasing the limit of workers to 1000 for industrial exit, and also laying out an elaborate mechanism to skill Indian labour. The objective was to raise the proportion of skilled workers to 67% of the total labour force (about 44 crore workers) by 2022, and that would scaffold a strong manufacturing (Narayan, 2015).

For skilling such huge mass of labour force, skill loans on easy terms would be provided. For the purpose of skill formation 10000 Industrial Training Institutes and 75000 trainers would be mustered up for the task. The exercise us enormous as only 4.5 thousand trainers exist at present. That's why it is envisaged to rope in industry people to provide such skill forming training by offering apprenticeship schemes and to induce workers to take up on-the-job training some stipend would also be offered. The industry has the capacity to hire about 5 lakh apprentices, although at present only 2.8 lakh are registered. May be that the stipend rates have to be increased to encourage some more workers to join the endeavour.

Besides this 'KoshalKendras' or Skill Development Centres are being contemplated to be set up with the state's participation for this purpose.The selected areas for skill development under the Mission are, real estate; retail; transport and health and nursing etc. but the problem would be that at present the ITIs do not have the facilities and infrastructure at present to impart skills in the chosen areas.

As a matter of fact the whole programme of skill development was conceived in 2009 when it was planned to constitute a National Skill Development Corporation under the National Skill Development Policy to help workers acquire capability through skill imbibing that would enable them to create avenues for self employment. That move would relieve pressure on the employment situation as well as help building capabilities and competencies that would spurt up manufacturing activity in India. This would also fulfill Indian mission of making growth more inclusive by enabling people to get livelihood sources.

In 2012-13, NSDC and its partner industries trained 4 lakh workers. In 2013-14, the target was to train 8 crore people in the next 10 years. In all 29 Sector Skill Councils were formed which have standardized skill development curriculum for the respective sectors. Since the Councils would take up only demand driven training programmes, so industry would hire only skill certified persons. Thus by 2014-15, the target was to form skill among 35 lakh workers.

Besides this , National Skill Certificate and Mandatory Reward Scheme has the scope to enroll 3.81 lakh workers for training programme, out of which 1.74 already completed training in 204 job roles in 17 sectors. Thus about 45 crore people who are employed in different sectors, all need to be upskilled. Thus in the next 10 years, about 135 crore people need to be skilled and if 30 crore young workers are added every year the task is becoming herculean (Sharma, 2014.

Another aspect of skill development programme is that now multiple skill training is required for equipping workers with flexible competencies so as to increase workers mobility across jobs and across areas. Only this will lend more flexibility to the otherwise rigid Indian labour markets.Thus it is proposed to add some more areas of skill development to the already chosen ones, including leather, glass, hand tools, electrical machinery and transport parts and equipment etc..

To make skill acquisition spontaneous and natural, it is proposed to intertwine skill development programme with the educational curricula in schools and colleges, as is already being done in China (Rajivlochan, 2015).

Conclusion:

Manufacturing activity has had a place of pristine prominence in India of the bygone era. But the overpowering of the country by the British resulted in de-industrialisation of India due to their avaricious commercial policy of transforming India into perennial supplier of raw materials and a captive market for British machine made goods. But since independence the Indian planners gave utmost precedence to manufacturing industry. With a chequered history of growth till 1990, the manufacturing sector nonetheless had provided a robust and vital base for growth and employment. But since the economic reforms of the 90s, manufacturing has been shoved behind the services sector particularly IT industries. This has happened in contravention to the normal pattern of growth of economies, that after primarily primary producing economy, the development dynamics allows the manufacturing to fully mature, before entering the stage of tertiary sector dominance. But in case of India, when manufacturing was growing since independence, but without maturing India entered the stage of hi-growth of services sector. This has diluted the role of manufacturing activity in India. But this paper professed the pertinent role of manufacturing sector in the contemporary Indian economy, to enable the economy to surmount many of its inadequacies and laggardness, as has happened in case of China. Thankfully the currently launched programmes of Skill-India Mission and Make-in-India campaign, concomitant with other labour and

industrial market reforms, have provided fresh impetus to manufacturing in contemporary Indian economy, both domestic and foreign manufacturers, especially the latter have been induced to bring spontaneous inflow of FDI for spurring up Indian manufacturing due to perceptible improvement in ease-of-doing business and reformed labour and industrial markets. Enhanced manufacturing activity augers well for overcoming many economic ills miring the contemporary Indian economy.

Tables:

Table 1

Sectoral contribution to GDP at factor cost and employment since 1950

Year	Primary Sector		Secondary Sector		Tertiary Sector	
	% GDP	% Employment	% GDP	% Employment	% GDP	% Employment
1950-51	56.4	72.1	15.0	10.6	28.5	17.3
1970-71	45.8	72.1	22.3	11.2	31.8	16.7
1990-91	33.4	66.8	27.0	12.7	39.6	20.5
1996-97	27.8	56.7	29.3	17.5	42.7	25.8
2014-15	19.0	24.8	28.4	26.7	52.6	59.6

Source: i. Government of India (various issues), Economic Survey, New Delhi: Ministry of Finance
ii. CMEI (various issues), Basic Statistics Relating to Indian Economy

Table 2

Contribution of Manufacturing Sector to GDP and Employment

Year	% Share in GDP	% Share in Employment
1950-51	11.4	9
1970-71	16.1	9.5
1990-91	20.6	10.5
1996-97	22.5	11.1
2006-07	16.0	12.4
2012-13	15.1	12
2014-15	17.0	12

Source: i. Government of India (various issues), Economic Survey, New Delhi: Ministry of Finance
ii. CMEI (various issues), Basic Statistics Relating to Indian Economy

Table 3

Annual Compound Growth Rates in Manufacturing Segment

Segment of Manufacturing Industry	1951-55	1960-65	1974-79	1981-85	1991-92	1997-98	2010-11	2013-14	2014-15
Basic goods	4.7	10.4	8.4	8.8	6.2	7.1	5.97	2.1	7.0
Capital goods	9.89	19.6	5.7	6.3	-12.8	-1.8	14.75	-3.6	6.4
Intermediate goods	7.8	6.9	4.3	6.1	-0.7	7.1	7.39	3.1	1.7
Consumer goods	4.8	4.9	5.5	5.3	5.5	4.3	8.56	-2.8	-3.4
Consumer durables	-	-	6.8	14.4	-12.5	10.2	14.16	-12.2	-12.6
Consumer Non-durables	-	-	5.4	4.0	1.2	2.4	4.26	4.8	2.8
Overall	5.7	9.0	6.1	7.0	-0.10	4.6	8.23	-0.1	2.8

Source: i. Government of India (various issues), Economic Survey, New Delhi: Ministry of Finance
ii. CMEI (various issues), Basic Statistics Relating to Indian Economy

Table 4

Annual Growth Rate of Manufacturing Industry

Year	Manufacturing Growth Rate
1981-82	7.9
1985-86	9.7
1991-92	-0.8
1995-96	14.1
2001-02	2.9
2005-06	9.1
2011-12	3.0
2012-13	1.3
2013-14	-0.8
2014-15	1.2

Source: Government of India (various issues), *Economic Survey,* New Delhi: Ministry of Finance

Table 5

Growth and Contribution of Manufacturing to the Indian Economy

Year	Total Invested Capital (Rs. Crore)	Total Persons Employed _	Total Emoluments (Rs. Crore)	Total Value of Output (Rs. Crore)	Profit (Rs. Crore)	Gross Capital Formation (Rs. Crore)
1990-91	194912.85	827.94	20586.33	270563.53	11389.47	35559.02
1995-96	489969.25	1022.22	45116.05	670514.23	44047.06	90624.26
2000-01	571719.40	798.78	50718.73	926901.85	35698.80	61414.80
2005-06	901578.61	911.17	74008.20	1908355.48	184462.98	171567.01
2010-11	2393580.02	1269.49	183295.74	4676216.96	390161.61	445904.00
2013-14	3384555.35	1353.81	272415.03	6555251.16	439565.52	421843.21
CAGR	11.96	1.84	10.78	14.62	18.07	11.86

Source: Government of India (2013-14), *Annual Survey of Industries*, New Delhi: Ministry of Statistics and Programme Implementation

Notes:

1. Capital intensity varied between 9.4 in Food and Beverage; and 12.6 in Coke and Petroleum and other constituents of India's manufacturing industries during 1969-1996.
2. According to Mazumdar and Sarkar (2007) employment elasticity of output in organized manufacturing plunged from 0.99 in 1974-80 to -1.39 during 1996-2002.
3. Since 8 November 2016, with a view to eradication of corruption and black money from the country a massive demonetization drive has been launched so as to suck out about Rs14000 crore of circulating money which constitutes about 86% of the total money supply. The black money content is estimated to be between Rs 3-3½ crore. Plans are afoot to further purge black assets and black wealth created with evaded taxes and bribes and other sources of ill-gotten money. With a multi-pronged attack on the black economy, bribery and corruption may become unattractive, and so good governance would motivate businesses.

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