



# Reconsider Growth Strategies Under the Globalized Economy (India's Perspective)

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**RECONSIDER GROWTH STRATEGIES UNDER THE GLOBALIZED  
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**1. Introduction**

Manufacturing imperative is the pivot of the economy in the most countries, especially so in the fast-growing emerging markets. For the Indian economy to successfully distribute wealth across its vast multitude, manufacturing ought to grow from its 17.8 per cent share of GDP during 2011-13 to a number close to 30 per cent which is the standard for the mature industrial economies. Distinctly in a scurrying globalized economy, this growth will require diverse breakthrough including : (i) significant increase in productivity, and quality at the plant levels; and (ii) pursuit of worldwide competitive manufacturing strategies, and operations as well as successful integration into the global supply chains.

While there are significant challenges for Indian manufacturing entering the global arena – whether through the expansion of domestic enterprises or investments by global manufacturers from abroad – the opportunities are arguably more than worth the effort. *Global competitiveness in manufacturing fosters economic growth trajectory, productivity, and the job market, as well as invigorate the agriculture and the services sectors.* Rapid advances in worldwide distribution systems, and information technology, combined with a lowering of trade barriers, have led to the growth of global manufacturing, and service networks that take advantage of low-cost wages, and reach local markets; by scaling business through innovative investments, and practices. Indian manufacturing is slated to become a hallmark of manufacturing prowess in the future.

Multinationals based in industrialized markets often pursue emerging market manufacturing solely to use low-cost resources. However, cost reduction by itself will not support development of stronger capabilities over time. This puts cost-led manufacturing investments in peril. Without a stronger focus on long-term capability development, many investments (in factories, distribution systems, sourcing and so

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on) run the risk of rapid obsolescence as competing firms break the mould for more innovative product development, manufacturing distribution and sales models.

From the policy practitioners to academics to industry experts the consensus is that efficiency of operations must be dramatically improved. At the broadest level, one of the most worrying factors in Indian manufacturing is the lack of visibility into strategic information, which is a significant obstacle in increasing capacity investments across the value chain. Limited visibility increases the risks associated with new investments. That is to say, despite high growth rates, companies may be holding back on investments, because they cannot ensure the certainty of the returns to those investments.

Protecting investments in better capabilities is an additional challenge. But, while it might be difficult to prevent process and product capabilities from migrating to the competition; cooperation and competition have been shown to coexist in modern competitive analysis frameworks. Such development presage new forms of competition for firms based in the mature markets. Understanding capability development in supply chains in the emerging economies is therefore vital for any government, and manufacturer concerned with future competitiveness in global industries.

All of this will have to happen even as the performance of other global companies continue to improve. The role of large multinationals in realizing this aspiration is crucial. *A key issue is execution, and thus a significant role is also played by the management of manufacturing, and operations.*

## **2. Globalization : Growth and Development**

Anthony Giddens<sup>1</sup>, opined that ‘we live in a world of transformations, affecting almost every aspect of what we do. For better or worse, we are being propelled into a global order that no one fully understands, but which is making its effects felt upon all of us.’ In fact, globalization has become a major issue that no longer interests only the economic policy planners, the political commentators, and the social scientists. It is entered the mainstream of popular concern.<sup>2</sup> It involves more than one or two dimensions of “say” economics or culture. It is also an historical process driven by the diffusion of science, knowledge and technological applications, and innovations over time. The exchange of goods, the development of trade routes,

migration of peoples, and the spread of information are all part and parcel of the historical process of globalization. The internet, instantaneous 24-hour news stations, interconnected financial markets, the spread of communications and transportation systems, unprecedented integration of economic activities, and the rise of increasingly important non state , transnational actors are all examples of process of globalization.

Globalization as a concept and a process has been linked mainly to economics. Globalization refers to be progressive “networking” of national market economies into a single, tightly interconnected global political economy (via advances in communications technology and falling transportation costs) whose accumulation, and distribution of resources are increasingly governed by neoliberal principles – emphasizing the role of the market while minimizing governmental involvement in economic matters. This networking occurs through the transnational decentralization of production factors and services by which the markets of different countries are integrated into the global economy, enabling the farther, faster, cheaper, and more efficient flow of goods, services, capital, information, and people across national borders than ever before. This process is fueled by augmenting methods and systems of international transportation, by conceiving revolutionary and innovative information technologies and ideas, and by onrushing economic and ecological forces that demand integration, and uniformity as well as by governmental policies of deregulation and liberalization.

Globalization, now more than at any previous time, is subject to searching analyses, and unrelenting critiques. Indeed, globalization often viewed as an unrelenting force that relentlessly places material interests and values above sustainable human needs. Globalization is seen as a process threatening long term political stability and democratic governance. Globalization, may warn, directly threatens the world’s most distinctive cultural inheritances while rapaciously advancing seductive. Western, and, in particular US forms of mass-marketed culture. A more integrated world constitutes to many a fundamental threat to individuality, diversity, and distinct cultural inheritances. From this lens, the world of the twenty-first century will likely confront even more far-reaching changes than those of the nineteenth and twentieth centuries. Political disempowerment and uneven economic development, therefore, are hugely looming negative consequences of globalization.

*This paper has been aimed to : formulate alternative strategies of growth, and an approach generally supportive of globalization as a way to take another look at a phenomenon now defining so much scholarship, interest, and debate. One may find globalization threatening and distasteful, but it remains a fundamental part of integrated global economy in both positive and negative ways, and for some, globalization holds out the promise for a better future for most of the inhabitants of the underprivileged countries.*

Globalization's principal battlefield is the poor developing countries.<sup>3</sup> Particularly, for those states struggling to overcome poverty, and subsistence-living conditions, globalization holds out the prospect of a world order aligning itself ever more closely with remote and unaccountable power centers programmed toward the relentless homogenization of cultures based on capitalist greed. Progressive levels of globalization deprive developing countries of achieving authentic political, cultural, and economic institutions. This feeling of despair was best captured by *Anthony Giddens*<sup>4</sup> when he observed, “ A pessimistic view of globalization would consider it largely an affair of the industrial North, in which the developing societies of the South play little or no active part. It would see it as destroying local cultures, widening world inequalities and worsening the lot of the impoverished.”

In contrast, proponents<sup>5</sup> foresee the political, economic, social, and cultural transformations resulting in greater affluence, self-fulfillment, and creativity for individuals and their societies throughout the world. Globalization represents the possibility of realizing democratic values and individual achievements, heretofore simply unattainable for the world's impoverished. *Wars, terrorism, economic stagnation, and political instability will become the scourges of the non-globalizing world.* From this perspective globalization offers the promise of solutions to age-old problems rooted in parochial institutions that limit human growth and potential.

Evidently, globalization is conceptualized in a broad manner : as the development of a unified global economic, culture, and a new stage in world politics that merges and melds smaller units into larger embracing global processes. At the same time, globalization can also be viewed as a battle about how far countries are willing to accept constraints on domestic policy in sensitive areas such as economic, financial, political, social, and cultural sovereignty *for the sake of economic growth and development.*

## 2.1 The Structure of Globalization

To comprehend the structure of globalization, at least in respect of its impact on economic governance, it is essential to examine the critical driving forces, and key building blocks behind the process. The growing interdependence has taken place only because of the increasing acceptance, and entronement of economic liberalism as the preferred method of managing the market forces.

In fact, this in the context of a liberal approach, is a paradox and self-contradiction. Liberal economics demands little politics. The role of the political rulers must be confined to the provision of an enabling environment and a conducive climate, in which trade and commerce will feel free, and find their own way to the fulfillment of their target.

The logic of globalization suggests that the world is on the threshold of an era, in which there may not be any national business enterprise, or national corporation, not any more. No single company can manage to service the whole world. Globalize or perish is the slogan for survival and success in the corporate sector in the current commercial context. It is this imperative for growth which finds an echo in the phenomenon of *mergers and acquisitions* (M & A).

Merger with, or acquisition of, a company overseas is a short circuit to enter into the global market. Immediate access to the plant, ready-made equipment, trained personnel, existing goodwill, and established distribution/procurement network are some of the salient advantages in this route. Alongside M & A, greenfield investment is another avenue for globalization.

The choice of greenfield investment over M & A in a specific situation may be advisable, either due to some inherent advantages in the latter proposal, or simply because there may be no purchase candidate available. Unlike M & A, greenfield investment offers a clean state to an entrepreneur. There will be no inherited handicaps such as financial mismanagement, demoralized workforce, deserted supply chain, dissatisfied customer base and so on. Most modern equipment, up-to-date manufacturing technology, fresh and zealous employees-such and similar factor will provide and promote a sense of involvement, and commitment in the minds of all the stakeholders.

The market in India will witness more and more alliances, joint ventures, and networks, thanks to the *CLPG Syndrome* – an acronym popular with the financial analysts to describe the process of competition, liberalization, privatization and globalization – which has been predominant since 1991.

Henry Ekwuruke<sup>6</sup> observed, ... globalization put in balance, is a welcomed development for the contemporary world (a world which due to improved information and communications technology facilities is often described as a planetary village), but a lot still has to be done, especially in the sphere of the IMF, and the World Bank's leading policies to help rather than hamper economic prosperity particularly to the Third World nations.

To signal the fact, it was Joseph Stiglitz<sup>7</sup> who remarked : 'To understand what went wrong, it's important to look at the three main institutions that govern globalization: the IMF, the World Bank, and the WTO. There are, in addition, a host of other institutions that play a role in the international economic system – a number of regional banks, smaller and younger sisters to the World Bank, and a large number of UN organizations often have views that are markedly different from the IMF and the World Bank. The ILO, for example, worries that the IMF pays too little attention to workers' right, while the Asian Development Bank argues for "Competitive pluralism" whereby developing countries will be provided with alternative views of development strategies including the "Asian model" – in which governments, while relying on markets, have taken an active role in creating, shaping, and guiding markets, including promoting new technologies, and in which firms take considerable responsibility for the social welfare of their employees-which the Asian Development Bank sees as distinctly different from the American model pushed by the Washington-based institutions.

### **3. An Indian Experience**

The low rate of job creation in the high growth era of the Indian economy still leave open the question: Why has this been the case? To answer the question, it is important to recognize that India's pattern of growth has been a typical, and has *not* followed the standard path that we have seen other economies, especially with large supplies of mostly unskilled labour force. All the major Asian economies starting with Japan, then Korea, Singapore, and Taiwan, and now more recently, China, and

Vietnam, have moved from the import substituting phases of their economic development to an export oriented development strategy that witnessed in its initial years, *a strong growth in the labour-intensive segment of the manufacturing sector*. In all these countries, as their economies integrated more closely with world markets, *economic growth and structural transformation from an agriculture based to manufacturing based economy went hand in hand, one driving the other*. Surplus labour was pulled, sometimes in massive amounts, from less productive agriculture to the more productive manufacturing sector, and economic growth was driven in its early stages by a rapid expansion of labour-intensive manufacturing, mostly producing for export markets.<sup>8</sup>

This was *not* the case in India, where the *labour-intensive manufacturing sector did not become the engine of growth*. In fact, it was the *knowledge-intensive services sector which along with some segments of capital-intensive manufacturing was the engines of growth in India*. But these sectors by their nature were not employment-intensive. Whatever jobs that were created outside of agriculture were mostly in the low productivity-low wage informal services sector (comprising mostly trade, hotels and restaurants). But this informal services sector, by the virtue of the fact that the growth of this sector depends on the growth of other sectors, cannot be the leading sector of growth and therefore, is constrained in its capacity to absorb more of the labour force in agriculture than it is at present.

There has been a stagnation in manufacturing output and employment over time and an increase in both the formal as well as informal segments of the services sector in total output and the growth of the informal services sector in total employment. Not only has manufacturing stagnated as a share of total output and total employment the labour-intensive segment of the formal manufacturing sector has contracted over time.

### **3.1 Towards Manufacturing – Led Growth**

Globalization by increasing the opportunities for trade as well as access to markets and technology, has the power to do enormous good, and propel the economic growth percolate. The diverse growth-oriented strategies, that include : trade openness, FDI-inflows, and capital mobility, including technology transfer, have already been adopted in a big way. *The first logic* which is usually given in favour of

technology transfer, is that the wheel that has already been adopted need not have to be rediscovered if economies seek to be cost efficient. However, one important hypothesis in the context of sluggish employment growth in the industrial sector relates to the acquisition of capital-intensive technology imported from abroad. The import of new technology, which is primarily capital-intensive as well as skill-intensive, results in an increased demand for the cognitive skilled labour force, and not for the less skilled ones.<sup>9</sup>

*The second logic* is based on labour market regulation. The circle usually believes that labour laws in the Indian context are extremely outdated, and pro-employee which in turn, tends to reduce labour absorption. Due to the lack of labour market flexibility, economic growth and employment generation, as it is believed, cannot receive an impetus in a sustainable manner. The advocates of economic reforms lay considerable emphasis on labour market deregulations. This is because globalization, and shifts in the production activities are expected to impact on the labour market outcomes such as wages and labour productivity. In addition, for other reforms, in the area of trade for example, to be successfully, labour market reforms are considered as essential prerequisites.<sup>10</sup> Development practitioners opine that the labour market in developing economies are rigid in terms of work practices, wages, hiring and firing policies, etc., and all this has been attributed to the existing labour laws.<sup>11</sup> Incidentally, there are many other factors affecting investment viz., access to land, adequate infrastructure, and literate, *au fait* and especially disciplined work force, etc.

*The third logic*, particularly from the supply side, refers to professional skill shortage, pointing to the poor employability of the vast sections of the labour force. The lack of skill forces many to get residually absorbed in low productivity activities. Improvement in employability is therefore, a momentous consideration from the policy point of view. For this skill formation is an essential prerequisite which can be attained by accessing quality education, and participating in institutions which impart training in professional prowess. Such technical institutions, particularly which provide diplomas, are however few in number, so government initiative is indeed crucial. From the point of view of the quality of vocational education, again greater efforts are called for. Besides on the job training is another important way of eliminating skill mismatches.

The fact that over the next decade, India has to create gainful employment opportunities of its vast demography, with varying degrees of skills as well as qualifications, *the manufacturing sector is expected to be the engine of this employment creation initiative*. Apart from the jobs imperative, the development of the manufacturing sector is critical from the point of view of ensuring a sustainable economic growth in India. At this juncture, with the objective of developing Indian manufacturing sector to reflect its true potential, the Development of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry, embarked on creating a policy environment that would be suitable for the manufacturing sector to grow rapidly.

Keeping in view, the importance of the employment-industrialization-policies, and also the fact that India has *not* been able to generate the job market in the organized / formal manufacturing sector on a large scale, the National Manufacturing Policy comes as a silver lining.

#### **4. Structure and Growth of India's Manufacturing Sector**

India's economic growth success has been driven by service producing industries, mostly those employing relatively skilled labour force. The average share of manufacturing value added in India's GDP remaining low at 17.8 per cent during 2011-13 according to Economic Survey 2014-15. International comparisons suggest that the *actual* manufacturing share of GDP for India is lower than what is *predicted* while the opposite is the case for China.<sup>12</sup> The share of manufacturing in India's merchandise exports declined from 73.5 per cent in 1992 to 65 per cent in 2012. By contrast, in China in 2012, manufacturing accounted for 32 per cent of GDP and 94 per cent of merchandise exports. Between 1992 and 2012, China's share in the world exports of manufactures steadily increased from about 2.5 percent to a whopping 16.8 per cent while India's share increased much slowly from 0.6 per cent to 1.6 per cent.

Within the manufacturing sector, India tends to specialize in relatively skill and capital-intensive activities.<sup>13</sup> The fast growing exports from the country are either *skilled labour-intensive* (viz., drugs and pharmaceuticals and fine chemicals), or *capital-intensive* (viz., automobiles and parts). Between 1993 and 2010, the share of capital-intensive products more than double from about 25 per cent to nearly 54 per cent while the share of *low skilled labour-intensive* products halved from 30 per cent

to 15 per cent.<sup>14</sup> In contrast to the employment-intensive growth of China, India's manufacturing growth followed a relatively capital-intensive path.<sup>15</sup> Clearly, this is an anomaly given to the fact that India's true comparative advantage lies in low skilled labour-intensive activities.

Recognizing the significance of a skill-intensive strong manufacturing sector for 'long-term growth' as well as 'employment generation' – The Prime Minister Narendra Modi has launched *Make in India* a *de novo* initiative on 25 September 2014 with thrust on 25 sectors, and an aim to : (i) *remove bureaucratic sloth*; (ii) *eliminate red-tapism*; and finally (iii) *turn the country into a low cost manufacturing powerhouse*. Decidedly, it is momentous to situate the mega policy initiative in the context of growing global production networks in manufacturing industries. *The greater integration of domestic industries with global production networks must form an essential part of the Make in India programme*. For the promotion of domestic manufacturing, *The Make in India* initiative has set a few targets which include increasing manufacturing sector growth to 12-14 per cent per annum over the medium term, and increasing the share of manufacturing in the country's GDP from 17.8 to 25 per cent by 2022, creation of 100 million additional jobs by 2022 in the manufacturing sector.

What is required in the creation of an environment that allows entrepreneurs to freely search and identify freedom in the vertically integrated global supply chains of diverse industries. Based on imported parts and components, India has a huge potential to emerge as a major hub for final assembly in several industries. However, it is important to resist the temptation of extending tariff protection for final goods assembly as it will have the detrimental impact of breeding inefficiencies. A level playing field should be created for different types of business entities – *domestic, foreign, and joint ventures*. The domestic market for goods should be as contestable as is the export market for competing suppliers from around the world.

A flexible labour market, with appropriate social safety nets, is a crucial necessary condition for the growth of labour-intensive manufacturing in India.

## **5. Challenges before Manufacturing**

In Indian manufacturing, the most warring evidence is that of the *lack of visibility* into strategic information. In fact, and somewhat alarming, the more

strategic the information, the less the visibility. This makes it difficult to take the right decisions in strategy, planning as well as execution.

The other major challenge is that of *flexibility*. Indian companies used to face increase complexity and constraints on flexibility as they continue their domestic and global expansion. In fact, the average Indian company is not lean at all.

Indian manufacturers *lack the technology support* for looking at the life cycle data of the products. Without this data, innovating on the product portfolio is difficult, if not impossible. Indian manufactures are far behind multinationals in India when it comes to adopting leading technologies – despite the (perceived or real) low cost of technology in India compared to the mature industrial economies. This low rate of technology adoption poses a real risk to Indian manufacturers’ futures, limiting their participation in global value chains where these technologies are required.

In the absence of lean processes or visibility, a lot of management time goes into day-to-day issues, and firefighting with only a little time left over for future planning and innovation. Despite a lackluster record when it comes to Research and Development. Indian manufacturing has recorded high growth, creating a unique opportunity for innovation. In fact, India is the top destination in the world level for R & D investment. *The cost of innovation in India is typically one-third that in compared to the developed markets; interestingly, it is among the lowest globally.* Manufacturers need to size this freedom to innovate with respect to products, processes, technologies, and the business models.

## **6. Make in India : A Flagship Initiative**

The problem is not with globalization policy decision, but with how it has been managed. In order to make globalization more humane, effective, and equitable *Make in India* is a timely mega public policy to promote India as an investment destination through effective and easy governance, and establishing it as a global hub for low cost manufacturing designed and innovation. Particularly, it was designed to facilitate investment, foster innovation, enhance skill development, protect the intellectual property right (IPR), and build up class manufacturing infrastructure. IPR protection would cover issues such as patent, design, trade mark, Geographical Indications, copyright, plant variety protection etc.

In fact, *Make in India* mission is a powerful, galvanizing call for action to India's citizens and business leaders, and an invitation to potential partners, and investors around the world. Unmistakably, it is much more than an inspiring slogan. It represents a comprehensive and unprecedented overhaul of parochial processes and policies. It also represents a complete change of the government's mind set – a shift from issuing authority to business partner, in keeping with Prime Minister Narendra Modi's tenet of 'Minimum Government, Maximum Governance'.

Under the initiative, 25 sectors have been identified for high growth, creation of jobs, and exposure towards professional skilling-upskilling. These include : Automobile, Automobile components, Aviation, Biotechnology, Chemicals, Construction, Defence manufacturing, Electrical machinery, Electronic systems, Food processing, IT (Information Technology) and BPM (Business Process Management), Leather, Media and Entertainment, Mining, Oil and Gas, Pharmaceuticals, Ports and Shipping, Railways, Renewable Energy, Roads and Highways, Space, Textiles and Garments, Thermal Power, Tourism and Hospitality, and Wellness.

*Make in India de novo* initiative is based on four pillars. *First*, new processes are to be initiated to ensure ease of doing business. *Second*, new infrastructure is to be put in place, whereby the government is supposed to develop five industrial corridors, and a hundred smart cities with brand new infrastructure, state-of-the-art technology, high speed communication, and integrated logistic arrangements. *Third*, new sectors such as medical services, defence, insurance, construction, and railway infrastructure, are to be opened up for FDI. *Finally*, modern mindsets are to be created, with the government acting as facilitator rather than regulator.

To attract new investments, and promote manufacturing, this policy initiative addresses the problem areas in the manufacturing sector through different channels of interventions. Some of the major interventions include the E-Biz portal enabling 24 x 7 applications of industrial license making the process seamless. The process of getting environment clearance has been made online. The policy has given approval to National Investment and Manufacturing Zones, wherein, the provision for single window clearance will be provided.

It is clear that *Make in India* need a different kind of campaign – instead of the typical statistics laden newspaper advertisements, this exercise required messaging that was informative, well packaged, and most momentously credible. It had to :

- (i) inspire confidence in India's capabilities amongst potential partners abroad, Indian business community and citizens at large;
- (ii) provide a framework for a vast amount of technical information on 25 industry sectors; and
- (iii) reach out to a vast local and global audience via social media and constantly keep them up dated about opportunities and reforms.

### **6.1 Role of MSME in 'Make in India'**

The Micro, Small and Medium Enterprises (MSMEs) play an unavoidable role to propel the *Make in India* policy initiative by addressing the issues of job creation, increasing the manufacturing share in GDP, as well as export promotion. The sector already contributes to around 45 per cent of the total manufacturing output, and around 40 per cent of the country's export. So to say, ensuring the competitiveness of MSMEs is highly important, as it would help in overall growth of low cost manufacturing sector, as also of the national economy.

There has been a sustained contribution of the MSME both in terms of output and employment, in spite of the slowdown in the economy as a whole, and the manufacturing sector in particular. However, MSMEs remained a cause of concern due to the major problems faced by the sector, in particular, having limited access to capital and credit facility, lack of technology know-how, limited access, awareness and interaction with global market, inadequate infrastructural facilities e.g., roads, power, and water supply, multiplicity of labour laws, lack of professionally skilled labour force for low cost manufacturing and marketing of the products.

The major schemes run by the government through National Manufacturing Competitiveness Programme, Credit Guarantee Scheme, Cluster development, and the announcement of Micro Units Development Refinance Agency (MUDRA) bank with a Corpus of 20,000 crores is a welcome step to strengthen this sector's contribution in *Make in India* mission. The apprentice Protsaha Yojana would boost the manufacturing sector of MSME. An innovative initiative is the launch of low cost,

and high quality MSME products on-line delivery system via [www.msmeshopping.com](http://www.msmeshopping.com) facilitated by National Small Industries Corporation (NSIC).

It has been estimated that the world needs, 540 million skilled people by the year 2020, both highly skilled, and skilled, including doctors, engineers, line managers etc, as also semi-skilled persons. Of this, as per the estimates nearly 50 per cent would be from India. *Given the extent of out migration from the country, there is likely to be a skill-gap at every level.* However, the adverse impact would largely be on the MSME sector. While, on one hand, there is a general skill shortage within the country due to outmigration, the incidence of that would ultimately be on MSMEs, as labour from both the MSME sector, as also potential entrants to it, would increasingly be drawn away. Besides, it would also lead to enhancement of wage rates in the MSME sector, making many such units, unviable. Evidently, the MSMEs get a permanent platform for addressing the issue of skill-gap.

## **6.2 Product Development Through Start – ups**

The experience of product development in the electronic systems sector lies with personnel in private industry. However, most of them have carried out design and development as services to multinationals. At times they have worked in captives (Indian subsidiaries of multinationals), where the control of the product design and development is mostly outside India. Then there are start-ups and young companies, where they indeed have designed, developed and commercialized products. But the numbers are fewer here. The combined strength of those in design-services companies, public sector labs, captives in multinationals designing products and those in start-ups is substantial. This would be the major asset if India has to become product companies. One of the Indian companies came up with a slogan – ‘We carry out twice as much R & D at half the cost of the West’. This has the basis of translational research and development towards product development in India.

The start-ups eco-system is indeed blooming in India today, lead by the start-ups in about 100 university incubators. In fact, the best students of the top institutions are now opting to get into start-ups rather than go abroad for a higher degree or get into high-paying finance jobs. Further, a significant part of these start-ups, at least IITs are engineering start-ups. Some of the companies are achieving mind blowing results, which could not even have been imagined a few years back.

Initially, the specific requirements of the start-ups or entrepreneurs can be fulfilled through the ultra-modern *financing alternatives*. These alternatives are :

**(i) Angel Investors :**

An angel investor is an investor who provides financial backing for small start-ups or entrepreneurs. Angel investors are usually found among an entrepreneur's family and friends. The capital they provide can be a one-time injection of seed money or ongoing support to carry the company through difficult times.

**(ii) Venture Capitalists :**

A venture capitalist is an investor who either provides capital to start-up ventures or supports small companies that wish to expand but do not have access to equities markets.

**(iii) Crowd-funding :**

Crowd-funding is the process of raising money to fund what is typically a project or business venture through many donors using an online platform, such as kick starter, indie go, and crowd-funder. The concept can also be executed through mail order subscriptions, benefit events, and other methods.

The financial system as delineated above ought to be introduced to propel the specific requirements for start-ups or entrepreneurs, of course in the initial stages.

In view of the fact, to optimize the *return on investment* is a hard task, and obscure in the absence of complete information i.e., under *asymmetric information*. Every new start-ups or entrepreneurs used to face serious bottlenecks to take a rational basis for making decisions and control in the passage of product development.

### **6.3 Ease of Doing Business Index**

The Ease of Doing Business Report has evolved into the primary guiding metric to judge countries on business-friendliness which was first published in 2003, seeks to go behind the usual *macroeconomic aggregates* such as *growth* and *inflation*, to analyse an economy through the prism of 10 not-so-visible parameters. In the World Bank's Ease of Doing Business Index of 2016, the position of India is 130 out

of 189 countries (The performance based on last year's methodology was 142 and this year it has moved up to 130). No doubt, India has registered a significant shift in trend after several years of decline. *The upward movement of 12 places was a significant move* as India took initiatives in amending the Companies Act, and made it easier for the small and medium enterprises to obtain electricity connection and to do business in the country which propel India to improve its ranking.

The target of reaching rank within 50 in the coming 3-4 years is doable considering the initiatives India is taking. The target is doable but a lot of work needs to be done to get there. Citing examples of countries such as Russia, Rwanda which have reached to above 50 levels from sub 100 levels in 3-4 years.

Construction permits issuance and enforcement of contracts are two parameters where India needs to lay emphasis on. The government for initiatives over bankruptcy law as well as Goods and Services Tax (GST) law is the most momentous reforms towards creating a single market in India. Provisions of creating dedicated teams to guide, and assist the first time investors and opening single window clearance systems will boost investments in low cost manufacturing in order to allure new investors 'come to India, and ride the growth.'

In this context Angus Deaton<sup>16</sup> adumbrated that 'globalization allows successful entrepreneurs, like successful entertainers, to extend their reach and enlarge their profits. And indeed, many more people around the world can now enjoy their extraordinary talents.'

#### **6.4 Tourism and Hospitality**

In India, the number living on less than a dollar a day fell from 296 million to 247 million, and the fraction of the population in poverty from 42 to 21 per cent nevertheless India's 240 million farm workers generate only 15 per cent of country's GDP. The *Make in India* campaign will offer them the choice of higher productivity by creating 100 million new manufacturing jobs. A *Visit India* mission aimed at attracting 50 million annual foreign tourists owing to India's diverse terrain – from Himalayan peaks to Indian ocean coastline – would create a similar number of new jobs as well as make a down payment on more opportunities for boosting women labour force participation rate. Decidedly, 'tourism and hospitality' *could be India's largest employer while simultaneously reducing the gender imbalance.*

Manufacturing and tourism are symbiotic. Both require and promote economic and social over-head capital i.e., cleanliness, effective regulation, and revamped state institution. In fact, the traditional 3 A<sub>s</sub> of tourism i.e., *Access, Accommodation, and Amenities* need a fourth A of *Articulation* for the gain in proficiency. Tourism decision making by groups and individuals is being revolutionised by online consumer reviews, Google maps, hyper local search and the sharing economy, while global competition means that travelers, traditionally satisfied by hardware, are being wooed with experiences. So that travel has become faster, cheaper, and easier, and the adequate information is everywhere and instantly available.

All in all, *tourism industry takes jobs to people rather than people to jobs*, requires less capital per job created than most other industries. It is also more likely to employ women than men, and eventually preserves culture, manifests the state of civilization among the people, and perpetual gaiety through articulation.

## **6.5 The Budget : 2016-17**

The India's Budget 2016-17 allocates Rs 1700 crores to set up 1500 multi skill training centres within the country, notwithstanding, about 76 lakh youth already been acquired the skill training out of which 26 lakh are able to enter the job market. The central government has also set up NSDC (National Skill Development Corporation) in order to mitigate the demand for the issue of skill-gap. Incidentally, the NSDC is a funding body which has targeted an ambitious programme of the skilling-upskilling of the 50 crores of people within the year 2020. The location of skill training centres can be identified through *Skill India Portal*, the web address is given by <http://skillindia.gov.in/>, and one may get on-line educational resources on diverse up to date skill formation.

In early February 2016, central ministers, top bureaucrats, businessmen, and investors to place their bets on India at the 'Make in India Week' in Mumbai, But by the end of February, in Budget 2016-17, the government's focus seems to have been directed elsewhere, surprising many development planners and researchers. In fact, a few manufacturing firms even closed down on falling commodity prices, uncertain about a demand revival, or as part of a general consolidation of operations. The Budget 2016-17 was perhaps an opportune moment to address these bugbears, and lay

the foundation to take manufacturing the targeted 25 per cent of the GDP by 2022, compared to 17.8 per cent at present, creating millions of jobs in the process.

Manufacturing growth has been stagnant for over a decade now, and contrary to what the government wanted to portray at the 'Make in India Week', The realization seems to be that large-scale investments will not happen overnight, especially since global demand is weak.

In short, we can now see the sluggish demand globally and excess capacity means that manufacturing will only grind its way up.<sup>17</sup>

## **7. Way Forward towards the Manufacturing Industries**

The Chairman of Toyota Motor Corporation<sup>18</sup> has remarked, "...Indian companies are fast catching up. My fear is that Japan will soon be overcome." Yet it is my feeling, however, that India's prospects for revolutionizing global manufacturing Industry hinge on the answers to diverse *crucial questions*. Among these :

- (i) Can the manufacturing industry sustain its current growth rate for some years into the future?
- (ii) Can it develop the job market, investments, and demand needed to propel the Indian economy?
- (iii) Does India need to follow the same growth path as Japan, South Korea, and China? Or is there another way? One that is more innovative more efficient, less polluting, more productive, and more sustainable? One that is tailored to the unique characteristics of Indian culture, and polity?

*A second set of questions* looks from the outside in and addresses the role that Indian manufacturing will play in global manufacturing industries as well as the global economy :

- (i) How will Indian manufacturers fit into global value chains?
- (ii) How will Indian manufacturers affect the relative advantage and disadvantage of different countries as locations for industrial activity?

- (iii) From a sourcing, production, distribution and sales perspective, how will foreign multinationals engage with Indian manufacturers?
- (iv) What are the critical areas where innovation in Indian manufacturing industries (e.g., Operations Management, Operations Research, Process Innovation, Design or Distribution) is starting to lead rather than lag behind innovation by global manufacturers?
- (v) In which areas will innovation in Indian manufacturing change the structure and performance of manufacturing industries around the world?

I do believe that only *research* that can answer these and other questions, and come up with new insights that impact companies, industries, and government's public policy is urgently needed. The study of the competitiveness of global manufacturing and service networks require expertise in diverse fields such as manufacturing operations, innovation and product development, supply chain network design, operations research (especially optimization, transportation problem, and strategic interaction), systems development and implementation, service network management, international trade, finance and international logistics. Incidentally, such *research* requires collaboration across academia, think-tanks and industry, will able to create *both the opportunities and the incentives for catch-up* and for spreading the benefits among the many. It was Angus Deaton<sup>19</sup> who remarked 'Growth, inequality, and catch-up are the bright side of the coin. The dark side is what happens when the process is hijacked, so that the catch-up never comes.'

The "BRIC" countries (Brazil, Russia, India, China) certainly reap some advantages from their size. A diplomatic corps, a competent bureaucracy, a few well – trained leaders, and the faculty of a world-class university cannot *all* be filled with only a handful of good people, and larger countries have larger pools from which to choose. If scientific discovery – or, more relevant for poorer countries, figuring out how to adopt old knowledge to new conditions – depends on the absolute numbers of scientists or researchers and not on the fraction of the population who are scientists or researchers, then this too gives larger countries an advantage.<sup>20</sup>

## 8. Concluding Observations

While attention focused on both in terms of ‘creating a self-reliant economy’, and ‘long-term growth’ for *invigorate the job imperative*, it is indeed palpable that the process of structural transformation has required economies to move from agriculture to manufacturing, and then to services. Unfortunately, this did not happen to India. India skipped over the transformational stage, and propelled directly to the service driven economy, with over 50 per cent of the GDP coming from services. Overall India’s pattern of growth has followed a non-standard, and what one could call a perverse route, and that such a growth pattern that privileges knowledge-intensive services, and capital-intensive manufacturing *over* labour- intensive manufacturing is not in India’s long-term interests, either from viewpoints of efficiency or equity. As it has not been built on the foundation of the innate comparative advantage India possesses in low skilled/ semi skilled labour-intensive manufacturing, and has limited the poverty reducing impact of economic growth.

Since the sustainability of this growth model is questionable, the Government of India’s *de novo* initiative – *Make in India*, was conceived on 25<sup>th</sup> September 2014 in response to promote skilled labour-intensive a global hub for low cost manufacturing design and innovation. The ambitious programme especially focused on 25 sectors not only attracting overseas companies to set up shop, but also support and encourage domestic companies to boost up production in the country. It is also aimed at enhancing the GDP and tax revenues, by producing product development through start-ups that meet high quality standards, as well as minimizing the impact on the environment.

Despite the many hardships, it is believed that there is a real opportunity for India. The IMF Chief : Christine Lagarde<sup>21</sup> finds in an interview saying eloquently that India as a ‘bright spot’ on a ‘cloudy horizon’ as it has the potential to double the size of the economy by 2019 compared to 2009. Nevertheless, formidable challenges exist – (i) Basic infrastructure remains inadequate, (ii) There is likely to be a skill-gap at every stage of the productive level, (iii) Employment elasticity has weakened due to technology advancement, (iv) India’s quite low ranking at 130<sup>th</sup> out of 189 countries according to The Ease of Doing Business Index Report 2016 of the World Bank, and (v) There is only a little contract between those who govern and those who are governed.

Decidedly, reaping the demographic dividend requires addressing the issue of skill-gap on a massive scale. R & D, Design and Product Development, IPR creation and preservation, in addition to manufacturing will contribute significantly to *Make in India* campaign. This will enable it to achieve its twin objectives to not only employ a large section of people in the country while it consumes more and more of these products, but also ensure that India's import bill does not sky-rocket. Improving the quality of technical education, and initiatives like that of IITM Research Park need to be strengthened significantly for us to achieve these objectives.

From a plodder's point of view, for a career in the manufacturing sector, traditional courses like engineering, and diplomas can be looked at. Technical knowledge is *sine qua non* for supervisory roles. Also for managerial jobs, management programmes with specialization in – *Production and Operations Management*; as well as *Operations Research* ought to be pursued. In order to :

- (i) Remove manufacturing bottlenecks, and the tension between manufacturing production, and its responsiveness; and
- (ii) Scientific aid for enhancing creative and judicious capabilities of a decision-maker under asymmetric information;<sup>22</sup> respectively.

Of course, for bulk jobs, one requires vocational training and certification. Based on the level of technical skill to be imparted, there are certificate courses for specific trades of varying durations. With the Government's endeavour to develop five industrial corridors, and a hundred smart cities with brand new infrastructure, state-of-the-art technology, high speed communication, and integrated logistic arrangements, one expects ample demand for professionals such as architects and engineers. Technical and management institutes can come up with more innovative courses to meet changed market demands. Top management schools are launching courses on *Make in India* mission for the great escape of today's disproportionately unequal India.

The quantitative change in each of globalization components (i.e., economic, social, and cultural) – foreign investors are already been invited through coveted schemes like *Make in India* to invest in low cost manufacturing, automobiles, space research, electronic systems, food processing and marketing, tourism and hospitality etc. – are so enormous that it will be able to create a qualitative change. Albeit,

India's globalized economy is increasingly on a stable footing yet the opportunities and the incentives for catch-up are confidently expected on the long-standing supply bottlenecks. As such, it is suggested that India today needing a *persistent, encompassing, and creative incrementalism*.

**NOTES AND REFERENCES:**

1. Giddens, Anthony., *Runaway World*, New York : Routledge, pp. 6-7, 2003.
2. Garten, Jeffrey., Cited from Steven Greenhouse, "After Seattle, Unions Point to Sustained Fight on Trade", *New York Times*, December 6, 1999.
3. Skeptics and critics are a diverse lot. They include human rights and labour advocates; religious, feminist, and consumer groups, and environmental and public policy research organizations.
4. Giddens, Anthony., *Runaway World*, New York: Routledge, p. 15, 2003.
5. Globalists count among their ranks most economists and many in the policy community, as well the three intergovernmental organizations charged with "managing" the global economy – the World Bank, the International Monetary Fund, and the World Trade Organization.
6. Ekwuruke, Henry., (Editor), Quoted from "Globalization and the Developing World !", *African News Network*, February 2, 2008.
7. Stiglitz, Joseph E., *Globalization and Its Discontents*, Penguin Books India, pp. 10-11, 2012.
8. Krueger, A., "Trade Policy and Economic Development : What Have We Learned ?", *American Economic Review*, Vol. 87, No. 1, pp. 1-22, 1997.
9. Wood, A., "Openness and Wage Inequality in Developing Countries : The Latin American Challenge to East Asian Conventional Wisdom," *World Bank Economic Review*, Vol. 33, pp. 33-57, 1997.
10. Hasan, R., 'The Impact of Trade and Labour Market Regulations on Employment and Wages : Evidence from Developing Countries.' In R. Hasan and D. Mitra (Eds.), *The Impact of Trade on Labour : Issues, Perspectives, and Experiences from Developing Asia*, Elsevier, Amsterdam : North Holland, 2003.

11. Fallon, P.R. and R.E.B. Lucas., “The Impact of Changes in Job Security Regulations in India and Zimbabwe,” *The World Economic Review*, 5(3), pp. 395 – 413, 1991.
12. Predicted shares are calculated from a cross-country regression of manufacturing shares on GDP per capita, GDP per capita squared, population and foreign trade to GDP ratio. For the year 2000, the predicted shares are about 20 per cent and 27 per cent respectively for India and China while the actual shares are 16 per cent for India, and 35 per cent for China (ADB, pp. 294, 2007).
13. Kochhar, Kalpana., Utsav Kumar, Raghuram Rajan, Arvind Subramaniam, and Ioannis Tokatlidis, “India’s Pattern of Development : What Happened, What Follows”, *Journal of Monetary Economics*, 53 (5), pp. 981 – 1019, 2006.
14. Veeramani, C., “Anatomy of India’s Merchandise Export Growth : 1993 – 94 to 2010 – 11,” *Economic and Political Weekly*, 47 (1), pp. 94 – 104, 2012.
15. That India’s manufacturing growth followed a relatively capital – intensive path is evident from the much smaller growth rate of employment than capital stock and value added. During 1973 – 2003, registered manufacturing employment grew slowly (1.3 per cent per annum) while capital stock grew faster (7.3 per cent per annum) than manufacturing value added (6 per cent).
16. Deaton, Angus., *The Great Escape : health, wealth and the origins of inequality*, Princeton University Press, p. 208. 2013.
17. Jha, Ajit kumar., M.G. Arun and Shweta Punj, “Down The Country Road”, *India Today : Budget 2016*, pp. 32-35, March 14, 2016.
18. Choudhury, Santanu., “Toyota Touts Indian, Thai Rivals,” *The Wall Street Journal*, November 29, 2005.
19. Deaton, Angus., *The Great Escape : health, wealth and the origins of inequality*, Princeton University Press, p. 215, 2013.
20. *Ibid.*, p. 237.
21. *The Economic Times*, March 17, 2015.

22. Sen, Rathindra P., *Operations Research : Algorithms and Applications*, PHI Learning Private Limited, New Delhi, P.28, 2012.

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