Manufacturing India : Perspectives 2025

Sonal Sisodia[1], Nimit Chowdhary[2], Neeraj Mangal[3]

Abstract

The ever-increasing visibility of Indian story on global front is a positive determinant of India's future. The present paper reiterates India's potential to metamorphose itself into an economic powerhouse in the next two decades. Our economy stands in the departure lounge and if surveys of business and consumer confidence are any indication, India in the long term stands to benefit.

However the paper emphasizes that the issue is not how to celebrate the present uplift in economy and our spirits. The issue rather is to avoid being trapped in the false consciousness the market has created for us and open ourselves up to learning from it and looking beyond it.

There is no doubt that services off shoring do add value and brings in more revenues for our economy. However, India faces a threat from the competitive reality of other countries such as China, Philippines and Vietnam catching up with it. As a consequence, there is a need to acknowledge that what held good in 2005 might not be same in 2025. The paper contributes to the understanding that against the backdrop of services outsourcing, the global opportunity for India's success in 2025 seem to emerge in form of manufacturing outsourcing. It is evident that future would not provide ways to win consistently and in perpetuity. This leads to the discussion on the future trends in the off shoring space and the sectors holding promise for India. The paper focuses its attention on leveraging the opportunity to establish India as a true outsourcing hub, not just in terms of services but in manufacturing too.

The factors that would help India in the 2025 would be the favourable "demographic dividend' of India - the highest proportion of young workforce by the end of year 2025 in tandem with the emergence of India as the new manufacturing hub. The conventional low- cost manufacturing along with improving capabilities of the labour force is acting as a catalyst to pull in more and more global vehicle manufacturers and vendors. The paper elucidates the benefits of embracing a manufacturing-led outward looking economic orientation in India's context with the contention that manufacturing will actually lubricate the services and agricultural sector. The premise is that while certain service sectors will continue to grow impressively, their overall contribution to economic growth, employment and incomes will not be adequate in itself to meet India's economic growth need. Hence the choice of focus on manufacturing off shoring, which is presently at an embryonic stage, would put India into a commanding position.

The paper also compares and contrasts the issues and potential problems India faces due to India's relatively late start in economic liberalisation. The paper ends with the suggested measures and implications for government as well as Indian manufacturing sector.

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Introduction

If you live in an uncertain world, the chances of your survival get stronger in proportion to the range of options available (Marris, 1996; cited in James, 1997). Therefore, Marris argues that the more options one has, the more are the chances of survival one has. Taking the argument further, author opines that this widening of choice is at the expense of lessening the choice of others. The dominance of some systems over others is about their capacity to buffer themselves against uncertainty partly by placing smaller or weaker systems between themselves and the uncertainty (James, 1997).

The above logic to the management of uncertainty provides insights into the present economies, which are buffeted in a hostile environment of constant churn, competition and change. It seems that future would not provide ways to win consistently and in perpetuity. To succeed in the uncharted waters of an era twenty years from now, the evolution of nations will be driven as much by the pressures of society as well as by the compulsions of competition and the free market.

Indian economy: on a roll

Once in a while, opines Muller (2004), one is tempted to look into the crystal ball with the notion that there might be continued positive signs as far as an industry is concerned. This unabashed optimism appears to be coming true for the future Indian economy. The economic survey has clearly outlined that the Indian economy is in a resilient mode in terms of growth, inflation and balance of payment. Most analysts expect India Inc.'s profits to continue to grow at 15- 20 percent over the next few years. The growth rate in the Indian economy in the current year 2004-05 is estimated to be at 6.9% with manufacturing sector expected to grow at 8.9%. The Sensex is attempting to defy gravity continuum and move to stratospheric levels. India is consistently stepping up its contribution to global growth and demand. The GDP growth is led by growth in manufacturing and services sector (See Exhibit 1). Agriculture, textile, food processing and IT industry together are expected to create an additional three crore jobs by 2009. These figures do look ambitious by any standards for an emerging economy like ours.

With the above backdrop, the government envisions to achieve the broader objectives of economy through an assault on poverty and unemployment. Poverty as enmeshed through the indicators like illiteracy, disease, infant mortality and malnutrition is sought to be alleviated (Matta, 2005). The thrust on agricultural diversification, development/ strengthening of agricultural marketing infrastructure, repair, renovation and restoration of water resource, flood management and erosion control, promoting micro irrigation technology, increased rural credit, improved farm insurance scheme, promoting micro finance and micro insurance are positive steps to strengthen the rural areas. The establishment of rural knowledge centres across the country using modern information and communication technology would empower the rural population to harness benefits of technology to their best advantage.

International interest in India seems really strong with global players eyeing the long term. Our economy stands in the departure lounge and if surveys of business and consumer confidence are any indication, India in the long term stands to benefit.
Indian economy: global ambitions

In retrospect, the global economy scenario remained an alien thing for Indian economy up to 1990s. Being a self-sufficiency driven inward- looking protective economy, only a few sectors enjoying an export market share felt the movements in world economy. The radical change of economic policy in June1991 was an emergency package, intended to end four decades of government-led growth. The new economic policy was focused on reforming the financial sector, public enterprises, the investments, trade and tax regimes; and giving the private sector a much greater role in India's development. The economic programme resulted in 5% growth in 1992-94. Between 1994-97, GDP grew at 7.4%, placing India among world's best performing economies. The double-digit rate of inflation came down to a historic low (3%). Industry sector achieved a double-digit growth rate.

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India 2025: the interplay of forces

In the present ideal situation, the booming economy has little cause for worry and future India is poised to become the next big thing. However, reality would largely depend on the interplay of forces. It is hard to ignore the present while commenting on the future of India. One thing that is clear is that due to India's relatively late start in economic liberalisation, it will take a while to catch up with other developed economies. Clearly, there is a long road the nation needs to travel before we can claim to be a `knowledge society'. However, the ever-increasing visibility of India story on global front emanates as positive determinants of India's future.

Amidst these diverse perspectives, aspirations and apprehensions, it seems appropriate to take stock of the situation, both opportunities and challenges. India needs to tread with caution in the era of uncertainties. Uncertainties not from the perspective of the radical changes the economy is set to witness in coming years, but from the impact of these on propelling India into a significant position in the global trade sweepstakes.

India 2025: reaping the demographic dividend

The famous BRIC report of Goldman Sachs (on Brazil, Russia, India and China) projects India becoming the sixth largest economy (in US dollar terms) by 2020 and the third largest economy by 2050, only behind China and the US. According to the report, India will have the largest share of young talent in total population over the next two decades who would be joining the work force adding to the robust economic growth. As a result, India's young people will prove to be an asset to the global economy because while India's population will be getting younger over the coming decades, the population of all the developed countries, including the likes of Russia and China, will be getting older. This would give rise to an interesting phenomenon where in the other powerful rich economies shall face a crunch of working-age people while India alone would enjoy a comfortable surplus.

The pressures of aging populations and the resultant increased dependency ratio would force the developed western economies to turn towards the developing economies enriched with a large pool of young talent. Based on its very favourable `demographic dividend' India is all set to emerge as the beneficiary economy as it boasts of optimistic estimates of highest proportion of young workforce by 2025.

The report also highlights that India's importance to global markets would go on increasing as it moves on the sweet spots of growth and development path. Moreover, the BRIC's share of world growth could rise from roughly 25 percent in 2003 to more than 40 percent in 2020. In another twenty years, India's contribution to growth in particular could rise to around 9 percent from 5 percent in 2003. Additionally, India's weight in the world economy could double, though off of a low base, to 4 percent in 2020

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In a decade or so from now, the projections are that India could also move into a more dominant position in the consumer durables and commodities, a domain presently being enjoyed by China and Russia among the BRIC countries. The importance of the BRIC's as capital markets would also gain momentum over the next twenty years. India is starting from a low base and maintaining the momentum will be the key over the long term, seems to be the inference.

India 2025: Reality check

The new millennium is going to be the millennium of WTO, which assures a new journey on a new road with new missions. The basic underlying philosophy is open markets, non- discrimination and global competition in world trade, which is conducive to the national welfare of participating countries. India has an opportunity to achieve the productivity growth with scope of further reforms. Given India's tilt towards service- sector activities, the standard- setting marks of globally competitive firms, incipient moves to support home- grown private sector initiatives and rising quality of its infrastructure suggest that India could potentially be an exemplary growth story in the next two decades.
New paradigms: an ode to off shoring/ outsourcing

Outsourcing is becoming a widespread phenomenon and is increasingly being posed as an indicator to flag off modernity. Outsourcing or distributed delivery or right shoring seems to be the magic wand that would send India on a socio-economic trajectory in the future years and turn it into an economic powerhouse. In the western economies, the spending pattern of clients is changing with markets deciding the prices and forcing organisations to sustain those lower price points. The plummeting prices (billings) are pushing these organisations to develop offshore operations in developing economies like China and India that provide a large pool of workforce at affordable prices.

It is fortunate that the emerging mega trends in the world are turning the tide in our favour. As numbers would indicate, off shoring activities involving Indian companies are on an upward curve. Nasscom estimated that $12.5 billion (Rs. 55000 crore) worth of work in the IT and IT- enabled services were off shored to India in 2004. The expected figures for 2005 stand still higher at around $16.3 billion (Rs 71,720 crore).

India 2025: the new manufacturing hub

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The much obvious wave of outsourcing in IT and BPO sectors is set to continue in the coming decades too. But against the backdrop of services outsourcing, the global opportunity for India's success in 2025 seem to emerge in form of manufacturing outsourcing. Future decades signal the emergence of India as an attractive destination for hardware manufacturing. The factors such as the big domestic market, availability of skilled labour and cost advantage are reasons enough for setting up manufacturing facilities in India.

According to Business Today (July, 2005), the Economists predict a rise in the risk perception of doing business in China in the future years. This fear stems from the premise of China revaluing Yuan that could slow down its export economy. Although sounding a far cry at present, the future years might see heightened foreign direct investment being channelised to India as a measure of risk diversification. As a result, Indian government maintains that revaluation of Chinese currency is likely to make India's exports more competitive vis-à-vis Chinese products. Exporters are expecting that this development would also have an impact on other export items like leather, steel and other commodities. Manufacturing sure is opening up new vistas. The buoyancy of merchandise export growth at 25.6 percent in US dollar terms in 2004-05 reflects a sustained rise in volume of exports.

India seems to be fitting into the global strategy of developed nations and the trend would witness a meteoric rise. The primary motivation in companies coming to India is the lower costs and access to high quality skilled workforce. The future years might however see India as a growing consumer market with specialised needs that would often demand a unique combination of features and functionalities to suit the constrained context and price sensitivity. Setting up manufacturing facilities in India would help global giants to have a deeper insight into the consumer context and to the related adoption of processes and practices. Moreover, in the coming years, these international players would desire to be present as a part of the Indian workforce, which is increasingly being recognised as high quality. As a result, companies setting up base in India would be able to take advantage of this workforce and their skill levels not only in India but in other countries as well.

Already, several MNCs are increasingly manufacturing and sourcing from India. Companies such as Swedish power and automation giant ABB, reports Business Today (April, 2005), has designated two plants in India as its global factories. Nortel Networks has invested $10 million (Rs 44 crore) in Bangalore based Sasken Communication. More recently, Nasdaq listed Primus has sub contracted the entire design and development of its dual SIM card PTL mobile phone to the Bangalore based Quasar Innovations.

The Indian pharmaceutical industry has also demonstrated its potential by emerging as the leading manufacturer of low cost active pharmaceutical ingredients and generics for the world. Today India has the largest number of FDA approved manufacturing facilities outside the US. India is already uniquely positioned to undertake the initial phase of recovery and pre- clinical development in a hugely cost- productive manner. India in 2025 may well explore a model that will enable the realization of similar cost efficiencies in clinical development too, marking an evolution of Indian drug industry.

A new trend witnessed is coming of manufacturing facilities of global Electronic Manufacturing Services (EMS) firms. Such firms are an advanced form of contract manufacturing firms that manufacture entire products for original equipment manufacturers. Examples include Elcoteq Network Corporation of Finland planning operations in Bangalore, EMS majors Flexotronics, Jabil circuits etc. Electronic giant Nokia is planning an investment of Rs 625 crore for its handset manufacturing facility coming up in the state of Tamil Nadu, which is also attracting some Rs 5000 crore being pumped in by small and medium enterprises engaged in the business of textile exports.

Manufacturing off shoring: nudging the $300 billion mark

A new study by the consulting major CII-McKinsey quotes a magical figure of $300 billion (Rs 13,20,000 crores) as an estimate of the potential manufactured exports of India by 2015. Although the staggering estimates look rather ambitious and rosy, the anecdotal- heavy analysis put forth by McKinsey is based on a variety of factors.

Firstly, the report points out that as a risk diversification strategy, global buyers would increasingly look at India as an alternative to China. Moreover, the firm is betting on the Indian manufacturers who have been of late gearing up to leverage India's strengths and spending huge money to equip themselves with the additional capacities. Another silver lining seems to be the steadily growing production of foreign manufacturers that in turn has brought about increased professionalism in domestic markets. The most significant development however seems to be the escalating price pressures on manufacturers in developed markets leading them to off shore production to most cost effective locations.

McKinsey has identified three skill- intensive sectors namely- electricals and electronics, auto components and specialty chemicals that are bound to make India globally competitive along with a relatively less skill intensive apparel and textiles that could support India's case too as the key driver of the wave of manufactured exports (See Exhibit 2).

The automobile and auto components industry registered an impressive growth of close to 20 percent in the year 2003- 04. The good times continue to roll in the current year too.

According to the reports, the auto component sector is what India can bet on for a manufacturing - led growth in coming decades. In the auto components field, the present export figures stand at a meagre $1.1 billion. Nevertheless, the wave of offshore manufacturing has started hitting the Indian shores indicating some more happy times ahead. The conventional low- cost manufacturing along with improving capabilities of the labour force is acting as a catalyst to pull in more and more global vehicle manufacturers and vendors. Toyota, Ford's Visteon and General Motors' Delphi are the few international firms that are developing their Indian operations as a supply base for plants and customers elsewhere in the world. A significant move in the direction of Indian operations growing at par with the conventional Asian counterparts is the decision of Toyota Motors to set up a 100 percent export oriented unit (EOU) in India that would be manufacturing transmission- arguably the most complicated part that goes into a vehicle. It seems that in 2025, more and more number of cars around the world will boast an increasing number of 'Made- in - India' parts.

By many accounts, the Indian automobile industry is poised for significant growth over the next two decades. BRIC report predicts a dramatic rise in this sector in coming years. Jagdish Khattar of Maruti Udyog Limited remarks that India will be at the "inflexion point" which will experience a sustained 20 percent annual growth in automobiles in coming years thereby assuring economic and employment growth. He further states that in the coming decades, research and development in this field would focus on increasing the efficiency of automobile and road use through use of Information Technology and innovation in engine technology. In spite of the sophisticated technology, the next generation automobile industry would have to keep costs down and reduce time to market for new models. The implication would be- sharing of facilities among manufacturers, collaborative research and closer involvement with component suppliers. India's automobile growth could be rapid over the next decade, with the potential for three- folds increase in car ownership. China and India may emerge as the world's #1 and #2 car markets.

So far, attaining the figures of barely $1.2 billion (Rs 5,280 crore) in electrical and electronic exports, India is clearly far behind China or Taiwan, which flaunt of exports amounting to $50 billion (Rs 2,20,000 crore) each. Admitting the late entry of India in this sector, Mc Kinsey still remains hopeful of India capturing a significant share in the custom made and non- electronic segments in the next ten years. Celetronix, Tecumesh and Moser Baer are examples of Indian firms that design and manufacture products for leading consumer hardware brands. The success of more such firms will lead India as a high productivity, low cost manufacturing hub by 2015. The projections are pinned on India's competitiveness emerging out of a high level of technical competence and domain expertise.

As pointed out by McKinsey reports, off shoring in specialty chemicals was hitherto limited mostly to China. In lieu of the rising pressures on profits, companies are however approaching India to be able to manufacture at 20 to 30 percent lower costs while adhering to the stringent norms. Global manufacturers such as Rohm &Haas and Degussa are using India as a sourcing hub. Indian manufacturers viz., Micro Inks, Jubilant Organosys are getting their act together and making significant progress by

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As far as India's story in apparel and textiles goes, the dismantling of quota regime could act both as an opportunity as well as threat. The textile products as well as cotton textile growth rate of 14.8 % and 8.3 percent show an encouraging signal. It is all set to improve its showing in the post- quota world. The buoyancy of merchandise export growth at 25.6 percent in US dollar terms in 2004-05 reflects a sustained rise in volume of exports. If Indian exporters have to seize the opportunity, they have to expand capacities along with operational excellence; else the Indian industry faces the risk of failure from China that boasts lower costs, higher capacities and huge surplus.

India 2025 calling: competitive reality

In services, India presently seems to enjoy an enviable near- iconic status. Circa 2005, India has emerged as the preferred destination for the outsourcing of IT services. However, China could very soon challenge India's dominance in the business. An assessment of Chinese economy reveals that Chinese are quietly working to build the capabilities required to grab a large share of software market (Business Today, July 2005). There is no doubt that off shoring does add value and brings in more revenues for our economy. However, India faces a threat from the competitive reality of other countries such as China, Philippines and Vietnam catching up with it. India needs to work to strengthen the necessary conditions for its further growth.

The stack up : India and China

Almost every vision about India and its future turns to the oft- repeated discussion about India v/s China or more recently, India and China. Of late, the two Asian giants have been competing for the leadership of the developing world (See Exhibit 3). The two nations share similarities in that both have witnessed unprecedented levels of growth during the last decade; both have a massive labour force potential and a strong diasporas to be a part of rapid economic development. The major difference however lies in the ideologies with India's economic orientation being acutely services- led while China's is manufacturing- led. China's reform programme (since 1978) has focused on external sector whereas India began its reforms later in early 90s focusing on more micro level innovations to become a force in services. The sectors where India has an edge over China are Information Technology, pharmaceuticals, automobiles and auto- components.

India is in process of establishing a Free Trade Agreement with China, which envisages zero customs duties on bilateral trade that would further cement the booming commercial ties between the two countries. Bilateral trade between the two countries has jumped from $338 million (Rs 878.8 crores at the then exchange rate) in 1992 to a staggering $13.6 billion (Rs 61,200 crore) during 2004- 05. But the underlying issue is that the removal of these tariffs would put the domestic companies under pressure. Sectors such as textiles, chemicals, power equipment and steel would face the axe. With the removal of safeguard mechanisms, Indian products need to increase their competitiveness.

Presently, the manufactured exports of India amount to just $40 billion (Rs. 1,76,000 crores) fetching a meagre 0.8 percent share of world trade. On the other hand, China, the Asian dragon dominates in export items such as toys, footwear, and jewellery by making use of its low labour costs and huge manufacturing capacities and emerges as the preferred sourcing base in round 1 of off shoring. More importantly, infrastructure such as power and transportation is woefully inadequate in India. China's export sector is six times that of India. China's growth has averaged 9.8% through the 90s. It has invested approximately $30 billion (Rs 1,32,000 crores) in past five years on modernising its textile mills whereas India invested a meagre $3 billion (Rs 13,200 crores). China exported textiles worth $97 billion (Rs 4,26,800 crore) in 2004 while India could manage exports of only $14 billion (Rs 61,600 crore). China produced around 12 million tonnes of man- made fibres as against India's production of around 1 million tonnes.

Based on a recent cross-industry survey among 14 countries on low- cost country (LCC) sourcing conducted by consulting firm Accenture, China is the leading LCC among individual countries, while India is seen as a valued supply market for services and Information Technology. According to the survey, the most likely products sourced from India in near future would be auto components, pharmaceuticals, and apparel among others (See Exhibit 4).

Discussion

The most tangible manifestation of liberalisation is becoming evident in the form of globalisation- led convergence. The pressure to increase efficiency and productivity is obscuring the concept of the nation state, giving way to increased collaborations across the borders. In manufacturing, different components of the production process are being located in different places of competitive advantage (Business Today, January 2005).

While investors and corporations have focused intensively on China, India could potentially be a bigger growth story over the long run. It is important to understand the different routes to growth that China and India have adopted according to their own relative strength. Consequently, China has emerged as the manufacturing hub of the world, whereas India has consolidated its position as the services hub of world. Nevertheless, this does not in any way diminish the importance and prospects of manufacturing for India. Moreover, one can expect a fair amount of manufacturing to shift to India, as the global consumers want to minimize the country risks.

For culminating India into a vibrant economy by 2025, manufacturing could play a significant role. The value added goods constitute 70% of world's trade, the area in which India has moved yards but can go miles (See Exhibit 5). It is the time to lock the initiatives and policies so as to strengthen the strengths. If we can convert the large population as cheap, productive, disciplined, quality conscience, customer focused work force; the entire gamut of Indian industry is capable of changing world economics.

Vision 2025 conceives of India evolving into an information society and knowledge economy. There is no doubt that services off shoring has added value to our economy. At the same time, it is important to acknowledge that what held good in 2005 might not be so in 2025. The fear is that over a period of time, China will become our competitor in standard types of software and the rampant piracy will make it difficult for India to maintain its supremacy. It would be naïve to think that we can transform ourselves from an agrarian economy to a service economy in one decade without passing through a manufacturing boom. All developed countries that have service sector to the tune of 70% of total GDP, have passed this acid test. Moreover, the developed countries can sustain their growth as they have only outsourced their labour-intensive manufacturing to developing countries. The emergence of India as an exclusive service oriented economy is highly improbable given its demographics. An analysis of India's demographic profile highlights the stark reality that 75% of its working age population is educated below middle school level. As is evident, services in general, and knowledge based service sector specifically, demand a much higher level of education than either agriculture or repetitive labour-intensive manufacturing. Needless to say then Indian economy can grow further substantially if it chooses to transit through a manufacturing-led growth phase.

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Another significant imperative for focusing on manufacturing comes from the contribution of world trade to economic development. The evidence is overwhelming in favour of adopting an outward looking, international trade oriented economy as opposed to an inward looking domestic market focused one. There have been instances in past where even the supposedly `large' economies such as the erstwhile USSR, China, etc have failed dramatically in creating vibrant economies based on self sufficiency.

Of late, many view India as an alternative pole to China. Undoubtedly, China had a head start compared to us in reforming its economy but they went about it with great deal of planning. India's liberalisation and reform period began about a decade later, which explains much of its lag behind China. China invested heavily in the manufacturing sector and created impressive capacities in almost every sector of the economy. It is argued that China attained success as it has a huge domestic market. However, India too boasts of a population that is to surpass that of China in 2034. China targeted the global market when creating these capacities. It also took its time to get into WTO so that the nation could practice some amount of protectionism in the intermediate period.

The impact of this policy is there for all to see. Firstly, the emphasis on manufacturing is confirmed by the fact that among the three sectors in China, manufacturing takes the largest slice of pie (See Exhibit 6) whereas in India it is third behind services and agriculture. Apart from this China has emerged as an 800- pound gorilla that is a force to reckon with in textiles, consumer durables, steel etc. An essential offshoot of this is the huge trade surplus the China enjoys. Its exports race ahead despite global slow down and its foreign investment figures are much higher than India.

From a point in 1986 where China's and India's per capita incomes were equal at $275, China's per capita income has more than quadrupled while India's has crawled up to $545. China's export sector- the best indicator of a nation's competitiveness in the ultimate analysis is nearly six times that of India. Then there is China's non- market economy, cheap power (Rs 4.92 per kilowatt hour as opposed to Rs 7.38 in India) and world-class infrastructure that make it an obvious winner.

India is seriously capital deficient relative to other developing countries and the gap is widening. Manufacturing is a relatively more capital-intensive mode of economic development. Our incapability to aggressively attract FDI into the country, specifically in the manufacturing sector has made the difference. FDI can play a significant role in bridging the capital gap, in addition to up grading the level of technology and skill.

In contrast China has been remarkably successful in attracting FDI with nearly half of total FDI inflow into all developing countries. FDI in China has been successfully targeted at labour intensive manufacturing exports (over 60% of total FDI in China has been in the manufacturing sector and over 50% in labour intensive manufacturing) (See Exhibit 7)

Assimilation of additional labour inputs into the productive activity has been a feature of developing countries. In every case the manufacturing sector has played a key role in providing employment avenues for rural/ agrarian population. Employment generation should be the single largest issue of national concern and that a vibrant manufacturing sector can play a major role in assimilation of additional labor inputs into the economy. In this context, the identification of labor intensive manufacturing as a means of rejuvenating the Indian manufacturing sector could serve as one of the most important initiatives towards creating additional employment.

The message is clear. Liberalisation of trade in services should be accompanied by liberalisation in agriculture and manufacturing too, since an isolated growth of services is not desirable from the view of long term growth and its sustainability (Joshi, 2004). Manufacturing will actually lubricate the services and agricultural sector. Even in case of manufactured goods, the influence of the knowledge economy has been significant. In most instances, modern day manufacturing has knowledge and technology deeply embedded in its processes and products. The premise is to put the emphasis back on manufacturing. The competitiveness of the sector cannot be doubted. The truth however is that manufacturing has always found a discriminatory stance as opposed to traditional agriculture or emerging services sector.

The whole argument can be summed up as that while certain service sector will continue to grow impressively, their overall contribution to economic growth, employment and incomes will not be adequate in itself to meet India's economic growth need. Hence the choice of focus on manufacturing sector as the target for India's immediate economic development implicitly recognizes both the importance of this sector to overall economic growth and the likelihood of successfully carrying out specific measures within a reasonable time frame.

Measures

We need to acknowledge that what held good in 2005 might not be same in 2025. In a world of uncertainty we are overwhelmed by middle-level solutions to problems, which are not middle-level problems (James, 1997). The issue is not how to celebrate the present uplift in economy and our spirits. The issue is how do we get out of being stuck on the false consciousness the market has created for us and open ourselves up to learning from it and looking beyond it. Prahalad and Hamel (1990) cited in James (1997) opine that what produces long-term stability and success in an uncertain world is not just building competitiveness but building on "core competences".

Instead of feeling content with a short term buoyancy, it is advisable to experiment, to grow diversity, to spread the risk and above all to grow the interfaces between the various economic sectors such that the future forms and the interfaces between them could be nurtured. More importantly, public attitude should be part of the solution rather than part of the problem. In order to achieve the long-term growth part we envisage, India needs to strengthen the conditions for growth. We need a present plan that is worthy of our future potential. The tools for this kind of transformation include extension of outsourcing from IT and BPO sectors to electronics, apparel, textiles, automotive, consumer durables, pharmaceuticals and many more industries. The Indian pharma, automobiles and auto components industries can take advantage of the prevailing bonhomie to set up production bases in China. India has a disadvantage in form of a manufacturing industry with higher costs, lower capacities and shortages. We need to learn from China and try to become a more outward- looking economy. Recognising the fact that 55 percent of Chinese exports come from multinationals that have set up bases in special economic zones and not from global sized Chinese companies, India's efforts should be targeted at attracting foreign firms in view of significant export growth prospects and enormous employment potential for the seemingly less educated masses.

India's most abundant asset is its young demographic profile, the world's largest pool of young workers, which would serve as the means that would catapult India's economy. However their future depends on the shape the Indian economy and society will take over the coming decades. If imperatives are not effectively addressed, this potential lot of young work force may end up as underemployed, frustrated, vulnerable and unproductive mass.

Imperatives for Government

The CII- McKinsey's report points out that since manufacturing has to face hurdles of complex supply chain and infrastructure bottlenecks, the government needs to remove trade barriers, lower indirect taxes, upgrade ports, accelerate power reforms, encourage the creation of manufacturing clusters and accelerate skill development. It implies that Indian firms will have to acquire the scale, efficiencies and cost structures required to compete on the global stage. The hurdles that stand in the way of India's export take-off are many and severe. It is required that the government begins addressing the hurdles early.

The work on BRIC mention that openness to trade and investment, sound macro- economic policies, strong institutions and infrastructure (physical, logistical, service and health), and high education levels are certain conditions for growth that India needs in order to realize its dream of becoming an economic superpower by 2025.

Implications

The iconic image of the tech- savvy Indian has effectively displaced the less edifying icons of earlier eras: those of famine victims, the ubiquitous cows, the ash- caked sadhus, and the likes...(Business Today, Jan 2005). India is ready to be christened the outsourcing hub. Not just services outsourcing but outsourcing in industries such as apparel, consumer durables, automotives and many more.

Needless to say that due to the outsourcing jobs brought about by an increasingly networked and globalised world, India has been able to scale the unprecedented heights of economic development in a relatively short time span that would have been otherwise simply unimaginable in several decades to come. It would be appropriate to now attempt at creating the opportunity to establish India as a true outsourcing hub, not just in terms of services but in the manufacturing too.

The Indian hardware- manufacturing story will strike a positive chord on India's future. The interplay of forces that are becoming evident in the country would chart out the new mantra of learn, adapt and change to capitalise on the growing economy and uncertain future. As India spreads its wings to expand our capabilities and explore new horizons, one thing that clearly emerges is that we as a nation have to grow full scale, sooner the better.

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Appendix

Exhibit 1

Sectoral Real Growth in GDP (at Factor Cost)

		Percentage Change Over The Previous Year							
	Item	1997 1998	1998 1999	1999 2000	2000 2001	2001 2002	2002 2003 (P)	2003 2004 (Q)	2004 2005 (A)
I.	Agriculture and allied	-2.4	6.2	0.3	-0.1	6.3	-7	9.6	1.1
II.	Industry	4.3	3.7	4.8	6.5	3.6	6.6	6.6	7
	Mining & quarrying	9.8	2.8	3.3	2.4	2.5	9	6.4	5.3
	Manufacturing	1.5	2.7	4	7.4	3.6	6.5	6.9	8.9
	Electricity, Gas and Water	7.5	7	5.2	4.3	3.7	3.1	3.7	6.3
	Supply Construction	10.2	6.2	8	6.7	4	7.8	7	6.1
III.	Services	9.8	9.4	10.1	5.6	6.2	7.9	9.1	8.9
	Trade, Hotels, Transport and communicallor	7.8	7.7	8.5	0.8	9	9.8	11.8	11.3
	Financial services	11.6	7.4	10.6	3.5	4.5	8.7	7.1	7.1
	Community, social & personal services	11.7	10.4	12.2	5.7	5.1	3.9	5.8	6.6
IV.	Total GDP at Factor cost	4.8	6.5	6.1	4.4	5.8	4.6	8.5	6.9

P: Provisional Q: Quick estimatesA: Advance estimates
Source: Central Statistical Organisation

Exhibit 2
CII-McKinsey study on four sectors in manufacturers exports

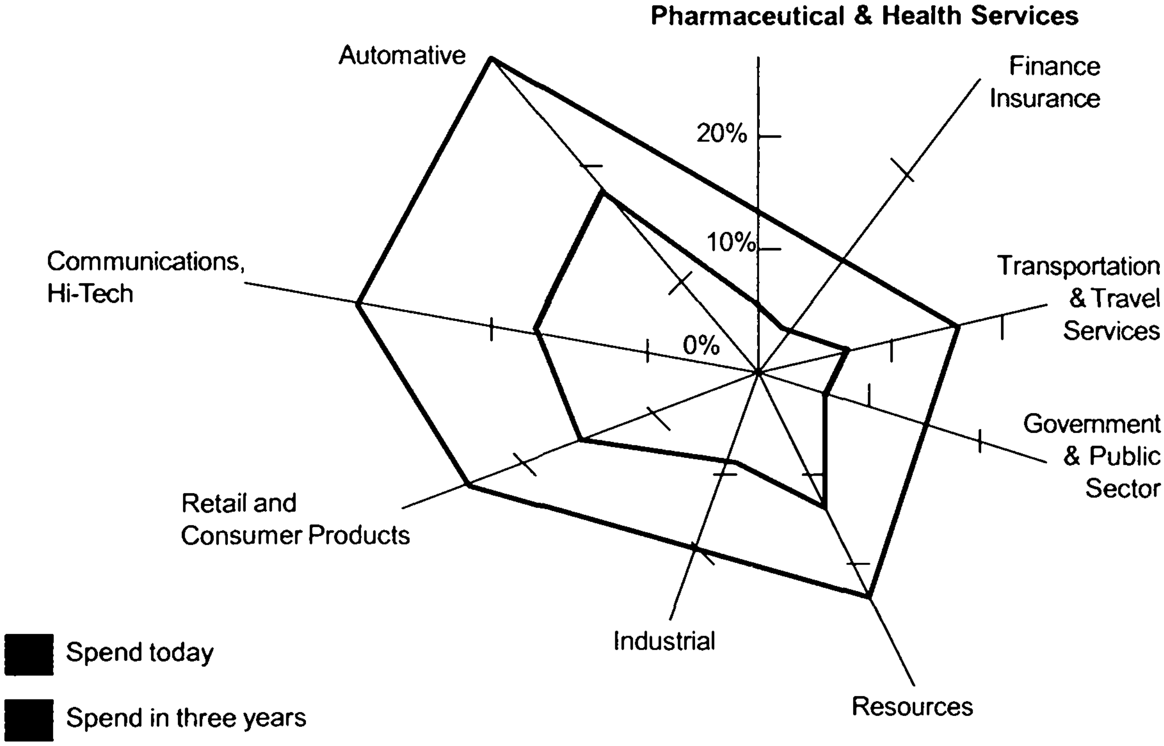
Sector	Current exports (bn)	Potential exports * (bn)	Global share *	Strengths	Weaknesses
Auto component	$ 1.1	$ 20.25	2 - 2.5%	Engineering and continues improvement of skills	Fragmented Industry and poor OEM linkages
Electricals and Electronics	$ 1.25	$ 15-18	2.5 - 3%	Design & engineering skills vendor base	Lack of scale and low domestic demand
Apparel manufacturing	$ 6.1	$ 25-30	8-10 %	Vertical integration, skilled labour and design skills	Lack of scale and operational expertise
Specialty chemicals	$ 1.6	$ 12-15	Among the top two low cost producers	Low and manpower and process innovation skills	Application R & D and marketing

* By 2015
Source : Business Today, April 2005

Exhibit 3

India v/s China : The stack up

Indicators	China	India
GDP	$1,650 bn	$627.28 bn
GDP growth	9.5% (2004)	6.9% (2004-05)
GDP growth	9.5% (1980-03)	5.7% (1980-03)
Per Capita Income	$1,087 in 2003	$545 in 2003
Forex reserves	$609.9 bn, Dec. 31, 04	$128.91 bn, Feb.4, 05
Annual FDI	$60.63 bn, in 2003	$4.67 bn, in 2003-04
Share of global FDI inflows	10.2% (2001-03)	0.9% (2001-03)
Unemployment	4.2%	10%
Below poverty line	36.1 m	260 m
Savings rate	45.0% (2004)	28% (2003-04)
Qualified engineers	6.63 m	9.27 m
Non-engineer Techies	5.43 m	0.07 m
Total spend on infrastructure*	20.3% (2002)	6.0% (2002)
Average spend on highways*	2.5% (1994-04)	0.3% (1994-04)
Inflation rate	1.9% (2004)	5.0% (2004-05)
Growth in real income per head	300% (1980-03)	125% (1980-03)



Estimates of level of spend in LCCs in three years

Source: Accenture

Exhibit 5

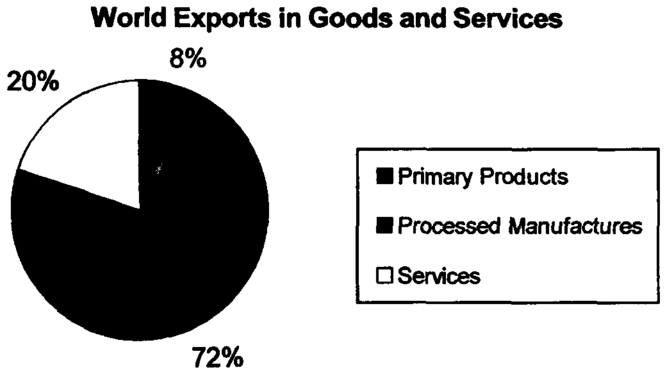
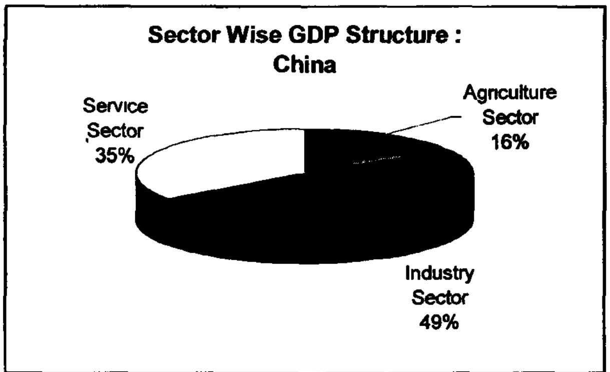


Exhibit 6



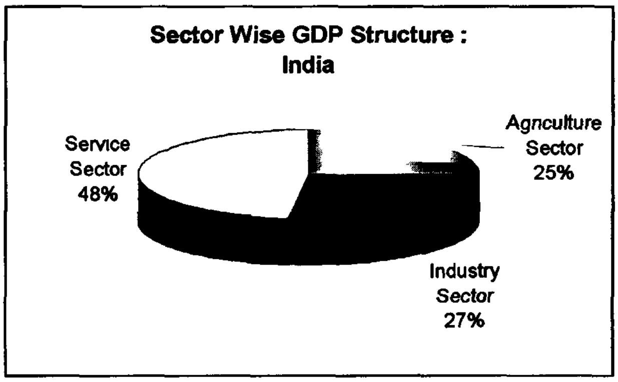


Exhibit 7