

Creating A Globally Competitive Manufacturing Hub

Professor N Viswanadham is Executive Director of the Centre for Global Logistics and Manufacturing Strategies at the ISB. In the following article, he outlines the measures required for India to emerge as a globally competitive manufacturing hub.

Manufacturing is the backbone of every economy and its global competitiveness is important for creating employment, and to nurture the agriculture and service industries including food processing and defence. Indian manufacturing accounts for 25% of its GDP. India has a sound manufacturing base that is growing at 6 - 8% per year. It is also a preferred destination for the manufacture of auto components, bulk drugs and producer services such as software, finance and other business processing outsourcing activities.

The issue of competitiveness of Indian manufacturing has been the subject of much economic debate in recent years. One can look at competitiveness at various levels – at the individual corporate firm level, at the industry level, and at the national level. Of course, these three are not independent but are highly correlated. One can also look at the competitiveness of companies from two angles – export competitiveness and domestic competitiveness. Similarly, industrial growth can be viewed from domestic markets as well from the export markets.

Manufacturing Growth Strategy

It is beyond doubt that India has to increase its manufacturing share to 40% to create employment for its millions of people, while concurrently attracting MNCs and encouraging local manufacturers to become MNCs. The main question however is in what sectors of manufacturing the growth

should be encouraged and what is the strategy for each sector. Traditionally, manufacturing sector includes sectors such as Automobiles, Chemicals, Oil and its derivatives, Electronics and so on. There are other sectors such as Food processing and Retail and producer services such as after sales in which India can lead the world. In each sector, different growth strategies and approaches need to be followed. In saturated sectors such as automobiles, chemicals, pharmaceuticals and oil where several advanced countries are leaders and are competing for the market share, India should follow lean manufacturing and mass production strategies to meet the domestic demand. In sectors where Indian companies are component suppliers to the global supply chains, they should move up the value chain to become contract manufacturers and product design manufacturers. In ever green sectors such as food processing where India has huge natural resources and possible productivity improvements, the country should aggressively pursue export oriented growth strategies while meeting the huge domestic demand.

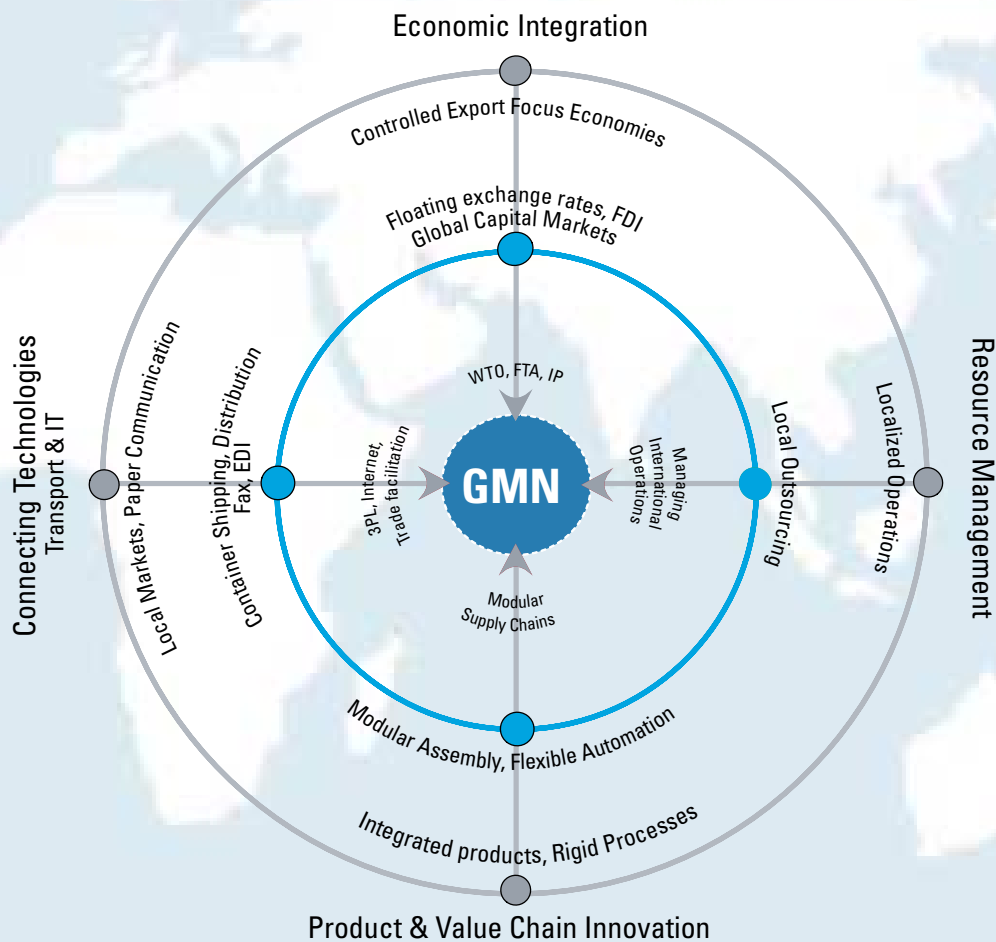
Sectors with Huge Growth Potential

Retail is the tail end of any manufacturing activity and is the organ through which manufacturers interact with the end consumer. This is a US \$200 billion market and is currently highly fragmented and inefficient. Restructuring this activity to increase its efficiencies and encouraging



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Evolution of Global Manufacturing Networks (GMN)



organised retailing through technology based mass production would trigger huge benefits to all the three sectors of the economy. Food, textiles, leather goods, and personal hygiene products need to be mass produced so that there is cost advantage. Currently, this sector suffers from several regulatory obstacles in land holding, agrimarketing, price controls, etc that inhibit its growth. The small scale sector needs to be integrated into the global retail network scenario. There is a huge opportunity for India to provide leadership in lean retailing.

In producer related services India has a huge opportunity to become a global leader and this area could be a real winner for India. Currently, companies providing solutions rather than products are the winners. Leaders in this area include aircraft manufacturers such as Boeing, computer manufacturers such as IBM, wireless phone manufacturers and a host of others. India is already a destination for R & D and a supplier of components to the global supply chain.

If in addition, India develops capabilities for repair and maintenance and also the fast delivery logistics, there are immense growth opportunities in aircraft servicing, computer server maintenance, medical equipment maintenance and a host of other life critical MRO applications.

Strategic Global Logistics Infrastructure Development

Manufacturing is not an isolated function. It is a member of a supply chain cluster consisting of suppliers, logistics, transportation, airports, seaports, financial and insurance agencies, services such as power, water and construction, and more importantly, the knowledge suppliers - the education institutions. Currently, the Indian government is concentrating on building critical infrastructure such as airports, highways, and shipping ports to improve the logistics efficiencies. In addition to expanding the hard infrastructure, the other network components such as efficient customs clearance and quality trucking

services that can have a strong impact on GDP, need focus. Automation of global trade documentation and streamlining the goods and documents flow through the customs at the airports and seaports could result in huge cost savings. Also, attracting the Third Party Logistics companies to India will benefit the manufacturing, retail and the after sales services.

Conclusions

In summary, a huge increase in the manufacturing sector workforce is mandatory for India's welfare. Agriculture, supporting 60% of the working population, contributes only upto 22% of its gross domestic product. This mismatch between distribution of workforce and value added in agriculture is one of the main reasons for the large percentage of poor population, and this trend is expected to further widen in the coming decades. Only a large shift of workforce from agriculture to manufacturing will help improve rural incomes and reduce poverty levels.

CENTRE FOR GLOBAL LOGISTICS AND MANUFACTURING STRATEGIES

Countdown for an Ambitious Launch

The Summit on Indian Manufacturing Competitiveness held earlier this year was a curtain-raiser for the future activities envisaged for the new Centre of Excellence for Global Logistics and Manufacturing Strategies.

The Centre for Global Logistics and Manufacturing Strategies is the third Centre of Excellence being established by the ISB, the other two being the Wadhvani Centre for Entrepreneurial Development (WCED) and the Centre for Analytical Finance (CAF). The vision statement for the proposed Centre, as stated by Dean M Rammohan Rao at the Summit is, “To be the knowledge partner of choice, for Government and Industry, on manufacturing logistics and supply chain management issues, strategies and policies in Asia.”

The Centre’s resources are the ISB’s resident and visiting faculty, and research associates who specialise in the fields of logistics and supply chain management. Its Advisory Board will have experts from the industry as one of its constituents, while its Business Development group shall interface closely with the industry to provide the necessary support.

The activities envisaged for the Centre are Customized Internal Training and Executive Education Programmes; Research in IT, Logistics, Automotive, Pharma, and Retail areas of manufacturing; and Industry development activities such as Supply Chain Management Forums, Workshops, Conferences, and Market studies and Benchmarking studies in the specified areas. The end users of the Centre’s activities would be individuals, governments, and corporations.

Professor N Viswanadham, ex-Deputy Executive Director, Logistics Institute – Asia Pacific, National University of Singapore, is the Centre’s Executive Director. He has outlined the agenda of activities for the Centre for the year 2006-7. This includes details of the Executive Education programmes, workshops, the

proposed Annual Conference, and the ISB Supply Chain Forum that will comprise members from the industry besides leading academic researchers. The Forum Members will benefit from the knowledge and training resources of the Centre, the networking opportunities available through the Forum’s avenue to world class experts, and from the collaborative opportunities on leading edge research and developments.

Some of the areas earmarked for research activities are Global Sourcing, Inbound Logistics and Outbound Logistics, Production, Physics of Service Networks, and Radio Frequency Identification (RFID). Strategic matters relating to India in particular that shall receive focus are Food Supply Chain, India as a globally competitive hub and a destination choice for MNCs, trade management, and the design of special economic zones.

The revenue model for all this cutting-edge research is to come from the strategic research grants from the Indian government and Foundations, research grants from various companies, and from industry consortium projects. Specific deliverables accruing from the research activities would be journal and conference publications, research reports to companies, and white papers on emerging topics.

Professor Viswanadham shares his plans for the Centre with us in the following interview.

Tell us something about your plans for the Centre of Manufacturing – its functions and importance both in the global and Indian contexts.

The economic growth of India and China has brought into focus the strategic and policy issues concerning the trade,

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infrastructure and financial issues relating to the global manufacturing and service networks. Countries need to focus on global transport, trade, IT and e-commerce infrastructure, intellectual property, HR issues, and global supply chain planning in order to remain globally competitive. Our Centre will conduct state-of-the-art research, training programmes and work with the industry and the Government to become the knowledge powerhouse on Global logistics and manufacturing in this part of the world.

We understand that the Centre is to have an interface of academicians and industry practitioners. What are the practical dimensions of this vision?

The Centre hopes to attract world-class academic and industrial researchers from institutions in India and abroad, and to develop partnerships with leading industrial and academic research institutions. Sourcing funds from national or international avenues for this research and attracting Indian and foreign companies to participate in our programmes will be the most important tasks for the Centre's management. Tractors and Farm Equipment Limited (TAFE) have already made an initial contribution towards the fund for the Centre.

What activities have you envisaged for the Centre in its year of commencement?

We plan to submit proposals for funding to various research foundations, manufacturing and logistics companies, government and international agencies such as the World Bank, UNIDO and World Economic Forum etc. We aim to create a body of generic logistics and SCM knowledge that can be customised to specific companies, industries and countries.

We will be actively recruiting about 20 members for the ISB Supply Chain Forum in 2006. The Forum will organise a five-day course on Global Manufacturing Strategies, two one-day courses on Logistics and Retail and a two-day Annual Conference – all in 2006. The first Annual Conference was SIMC, which shall be organised every year. The 2006 conference will focus on Global Manufacturing and Service Networks.

We also plan to bring out white papers on topics such as Dealing with Imperfect

Supply Chains, Global Manufacturing Network Strategies, Making India a Globally Competitive Manufacturing Hub, and others written by the Centre's faculty and associates.

What are the long term goals for the Centre?

The topics of Manufacturing and Service Strategies are going to be live subjects forever. There will always be innovations, new products, new processes, new technologies, and methodologies in Manufacturing and Service industries and hence the need for new research and development projects and continuing education programmes. We will have about 5 ISB faculty members, 10 post doctoral researchers, research assistants and doctoral students. We are looking for sponsors for our Rs 3 crore annual budgetary requirement, and also towards establishing a Chair in Logistics. In two years, we want to enter into the Middle East and South East Asia, and also link up with top Chinese universities for joint research.

As already mentioned, our research is focused on global issues relating to manufacturing, logistics and supply chain management. Our aim is to help formulate and evaluate strategies for: (a) companies to become global and (b) countries to become preferred destinations for MNCs.

What can India do to replicate China's double digit growth rate and emergence as the world's factory?

First of all, India should focus both on manufacturing and services on both local and export markets, and in creating employment for its people. India has to concentrate on developing state-of-the-art producer services infrastructure along with its factories. IT services bring us only a 21 billion dollars market. Food processing and delivery (70 billion USD) and retail (200 billion USD) also need to improve efficiency. Management consulting companies, Advertising firms, accounting firms, law firms or education services with the same kind of brand name as IT in India need to be developed. I do hope that the Centre will be able to interact with the policy makers, industrialists and young entrepreneurs to discuss these issues and probably contribute to fill the gaps in these areas.

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