OUTLOOK FOR INDIAN MANUFACTURING IN THE 21st CENTURY[1]

by

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The outlook for the manufacturing component, of the industry sector, of the Indian economy will, naturally depend on the prospects for the total economy. So, we begin the analysis in this paper with a possible total vision for India. From that we derive the requisite vision for manufacturing, in order to power the economy and the nation towards her vision. However, visions are not just wishes, like horses, which beggars could ride, in their fantasy. The actualisation of the manufacturing vision will depend on the ability of Indian industry and its partners to meet the exacting demands of competitiveness. Indian manufacturing could ride on two legs --- the strength of domestic demand; and competitiveness in the world market. The outlook also depends on how well certain public policy issues surrounding manufacturing are resolved. In the end, the shape of Indian manufacturing in the 21st century will be the net result of actions by the concerned stakeholders. The paper ends with suggestions for their actions.

1. INDIA VISION

What are the prospects for India? The answer to this question has tended to oscillate over the last seven years, since the 1991 paradigm shift of the policy frame of the Indian state from the earlier licence-permit raj towards liberalisation and globalisation.

i. Independent Indian agencies like the NCAER and CMIE believed by 1993 that the economy may have been re-positioned from the earlier 4% trend average growth p.a. to about 7% growth[3].

ii. Multilateral institutions like the World Bank, IMF and ADB also came to share this view.

iii. Bilaterally, countries like the U.S., Germany and Australia had identified India as a major, among the top ten etc. trading partner.

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1 Paper for the JRD Commemorative Volume of the Associated Chambers of Commerce of Indian Industry, July 1998.

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3 *The Great Indian Turnaround,* Keynote Address at the Annual Convention of the Calcutta Management Association, March 1992.

iv. Many MNCs were discovering and rediscovering India as an emerging market.

v. Merchant and investment bankers were recommending India to their global clients.

vi. Indian infrastructure -- power, telecom, roads and ports --- needing about 200 billions US dollars, --- considered a major investment opportunity.

vii. Foreign institutional investors seeing the scope for higher returns, from portfolio investment.

viii. A series of socio-political events such as the demolition of the Babri mosque in December 1992, scams in the stock market in 1994, in telecom tenders, the fall of two coalition governments after the 1996 elections, and another coalition after the 1998 elections, the nuclear explosions, sanctions, etc. have been casting shadows on the above prospects.

ix. There has been a domestic down turn since 1995.

x. This has been worsened by the S.E. Asian currency crisis; the recessions of Japan and Korea; currency devaluations, etc.

The fundamentals of the Indian economy still appear strong enough to go by the core philosophy of mathematical statistics, namely that beyond

a. Random fluctuations;
b. Seasonal variations; and
c. Cyclical factors;

there is the

d. Secular, long term trend.

The trend for India may be an upward trend for the next twenty years, averaging the following kinds of growth rates per annum –

i. GNP growth of 7% plus;
ii. Industry growth of 10% plus; and
iii. Export growth of 15%.

I have been advocating a three dimensional Vision for India in the 21st century.

a. An *Economic Vision* of emerging as the third largest economy, next only to the U.S. and China, based on a sustained average 8% p.a. GNP growth, 12% industrial growth and 15% export growth, for about two decades[4].

[4] *Vision and Strategy for the 21st Century*, Address at the RPG Group Conference, Bangalore, January 1995.

b. A *Social Vision* of improving the quality of life of all the people, reducing inequalities and inequities based on region, class, growth, gender, age, etc[5].

c. A *Spiritual Vision* of practising and sharing with humanity the ageless wisdom and guidance of Indian philosophy and heritage, in achieving material prosperity , without damaging the individual psyche, family, community and ecology[6].

2. INDIA MANUFACTURING VISION

The vision of manufacturing is, naturally, intimately connected to the national vision.

i. The *direct* relationship is with the Economic Vision.

ii. But the *process* of how we go about actualising the Manufacturing and Economic Visions has an *indirect* bearing on the Social and Spiritual Visions.

The relationship is a two-way interactive one.

a. The Manufacturing Vision is broadly a *derivative* of the India Vision.

b. It can also be one of the significant *drivers* of the India Vision.

I propose, to begin with, a two part Vision for Indian Manufacturing.

i. To be a mighty *locomotive* for expanding and catering to a huge *domestic* market.

ii. To make India a *power house* of supply to the *global* market.

In due course, additional dimensions can be added to the Vision. E.g.:-

iii. To carry Indian manufacturing capabilities overseas, based on strategic considerations, with linkages to Indian technology, capital and management.

iv. To fulfill deep social purposes through multiplier job creation, protection of the ecology, and *daanam*, philanthropy to health, education, art and spiritual pursuits[7].

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5 *HRD Challenges of India Vision 21st Century*, Paper at the Fifth Convention of the National HRD Network, Hyderabad, January 1996.

6 *Business Values for the 21st Century,* paper at the Golden Jubilee Conference of Moral Re-Armament at Caux, Switzerland, July 1996.

7 *Post Liberalisation Personal and Corporate Social Responsibility*, Convocation Address at the Manipal Institute of Management, April 1997.

3. MANUFACTURING COMPETITIVENESS FRAMEWORK

The future of Indian manufacturing will, understandably, depend primarily on the degree of its competitiveness. The competitiveness, in turn, rests on the following factors.

i. Indigenous sources of quality raw materials at low relative cost.

ii. Cost effective technologies for conversion into products, packaging, transportation, storage, delivery and service.

iii. Adequate size of domestic market to allow for economies of scale and scope.

iv. Sufficient ex-factory cost advantage, to absorb the costs of movement and distribution in export markets.

v. Intense domestic competition, which serves to prepare the players for foreign competition, both through imports, and in export markets.

vi. Visionary and competent management, which can formulate and implement robust business strategies, including especially marketing and manufacturing strategies; and mobilise the necessary physical, financial and human resources.

vii. Supportive physical and social infrastructure and work culture.

4. MANUFACTURING FOR THE HOME MARKET

There are many industries where manufacturing has high potential, given the country comparative advantages, such as raw materials and local demand. However, the growth is not, naturally, guaranteed. It is contingent upon competent management, infrastructure, industry structure and other supportive factors.

i. Industrial Raw Materials - Substantial deposits of iron ore, non-ferrous ores, coal, lignite, limestone, granite etc. offer scope for expansion of steel, aluminium, zinc, copper, power, cement and building materials. The necessary restructuring and consolidation towards a few viable players seem to have begun. In steel, the main players may be Tisco, Ispat, Jindal and SAIL. In cement L&T, India Cements, ACC, Gujarat Ambuja, Birla and JK.

ii. Agricultural Raw Materials

a. India has already been, for some years now, the world's second largest producer of milk. It is expected to become the largest by 2000 AD. While ensuring adequate consumption of milk by the poor, there will be a rising surplus for processing, packaging, branding, local marketing and even exports. Amul, SmithKline Beecham Consumer Healthcare, Cadbury, Nestle, Vadilal, Hindustan Lever and others are expanding their capacities. This is to be expected, with the world's largest bovine population. According to the Indian Dairy Association, India has a 15% share of world milk – 70 million tonnes, out of 460. At a growth rate of 5.5% p.a., it could reach 230 million tonnes by 2020, more than one third of the global output of 630 millions. The current dairy business volume is estimated at Rs. 80,000 crores. There is still scope for improvement. The milk share of 15% is less than the livestock share of 19% -- 272 mn. out of 1.4 billion. India has even greater dominance in buffaloes – home to more than half. Dairy products are helped by the fact that buffaloes yield, higher fat content, 55% of India's total milk output. There is also a growing infrastructure for logistics management, especially on the milk procurement side, with 90,000 village cooperatives, 170 district unions and 23 state federations. There is also a critical mass knowledge network, with 31 veterinary colleges and 80 agricultural research institutes.

   We elaborated somewhat on dairy, as a case study, with which many urban educated Indians may not be familiar, to illustrate its potential for manufacturing growth. Much still remains to be done. For example, the milk yield per animal in India is 522 kg. p.a. compared to 5,000 kg. In the U.S., Australia and the Netherlands.

   b. Perhaps not quite so spectacular as the dairy industry, there is scope for manufacturing in several other agri-businesses.

      - Edible oils - Fruits
      - Cotton - Vegetables
      - Tea - Flowers
      - Coffee - Spices
      - Rubber - Herbs.

iii. <u>FMCG</u> - A variety of factors will also create immense scope for manufacture of fast moving consumer goods.

   a. The progressive fall in the percentage of the population below the poverty line. A lower middle class of about 400 million and an underclass of about 200 million.

   b. Rising levels of literacy.

   c. Assertion of women, including in the rural areas.

d. Spread of ideas and life styles, especially through TV.

e. Changing life styles, such as in the use of tooth powder/pastes, bathing soaps, washing suds, processed and packed foods, beverages and snacks.

The rising volumes for a potentially huge domestic market, will lead to falling unit cost and relative price, making import less of a threat. It is possible that some or more of these goods may be made by MNC controlled or JV plants in India. That would still be *Indian* manufacturing, although not controlled by Indian *promoters*. It will have the potential for high value addition in India, to the benefit of many stakeholders --- customers, dealers, vendors, employees, FI and retail investors.

iv. Durables - Although initially smaller than FMCG, this segment of manufacturing also has the potential to grow, for the following kinds of reasons.

a. Rising middle class of about 250 million, including the urban middle income groups and the relative rural rich.

b. An upper class, high income group of about 50 million.

c. International travel, study, work, stay and exposure to contemporary, higher technology, premium durables for

- the kitchen,
- bedroom,
- living areas,
- transportation, and
- entertainment.

In this category, local manufacture by MNCs is even more likely, compared to the FMCG, because of their historical lead in product and process technology, brand equity and on-going high investments in R&D. Initially and in the medium term, even imports are possible. However as the volumes build up, the ubiquitous MNC product manufacturing life cycle will apply --- CKD, SKD, local assembly, local procurement, total production and even exports.

v. Industrial Intermediates - In many of these, Indian manufacturing is vulnerable to low growth, downsizing and even closure.

a. Where the economies of scale and scope are very large; and that industry is tending towards a global oligopoly of three to five players, such as –

- Chemicals.

- Ferrous and non-ferrous –
  - Ingots,
  - Blooms,
  - Billets; and even Sections.

b. Where there is a severe raw material shortage, such as-

- Paper.
- Coking Coal.

vi. Capital Goods - This sector tends to be even more dominated globally by a few players.

- Computer, Telecom, IT hardware – in all the segments-
  - the basic infrastructure;
  - the service providers;
  - the customers' premises.
- Production Equipment such as -
  - Flexible manufacturing systems,
  - CNC, CAD, CAM
  - Transfer lines, and
  - Heavy machine tools.

In these cases also, domestic manufacturing has some scope in the following ways –

a. As the volumes build up, the importing MNC may start local assembly, and gradual value addition.

b. Local suppliers of components and sub-assemblies.

c. Small, niche segments.

5. MANUFACTURING FOR EXPORT

There are products for which India is already a significant export base. In many of these, and in some new ones, she can emerge as a major powerhouse and global source of manufacturing.

i. Commodity Exports

These include –

- Iron Ore
- Manganese and other ores
- Tea
- Coffee

- Raw hides and skins
- Spices.

But it is necessary and possible to move towards more value addition, packaging, branding and global distribution, to enhance the net revenues and margins.

ii. Agri Exports

The McKinsey study on the Indian Food Chain, had projected the possibility of the processed food sector tripling from 20 billion U.S. dollars to 60 billion, if it is modernised. While this may not happen by the original target date of 2000 AD, it could by 2005. The recent Food Expo in Atlanta, Georgia, USA, at the annual meeting of the Institute of Food, noted the spread of vegetarianism in the US, as part of a health concern, promoted and endorsed by celebrities. US Basic, Inc. has pioneered a range of organic foods, with global inputs, including from Asia. The British Vegetarian Society has adults only TV advertisement campaign, with the slogan "Vegetarians are better lovers"!

iii. Manufactured Exports

There are several sectoral export promotion councils, advocating and supporting manufacture for exports among their member firms. The industry exports range from over 7 billion dollars in 97-98 by textiles to less than a billion in some sectors. But several are aiming at high growth rates. For example, the chemical sector is targeting a 30% p.a. growth rate upto 2001, to go from 2.9 billion to 6.3 billion dollars. Many sectors seem to have promise. Among them

a. Gems and jewellery,
b. Auto components, and
c. Software.

iv. Asianisation and Internationalisation

While bulk of the Indian exports will take place from India-based plants for quite some time, there may also be scope for some overseas investment by Indian firms. Such plants will continue to have supply linkages with the mother plants in India. Some examples are –

a. Ranbaxy's pharma formulation plants abroad, including one in China.

b. A.V. Birla Group's old investments in South East Asia.

c. Nagarjuna Group's and Godrej investments in Vietnam.

A recent study by Ernst & Young identifies possible opportunities, in the depressed Asian market for acquisition of assets, sourcing, backward integration and marketing. Beyond Asianisation, the more competitive Indian

firms have to also internationalise their business. The government, FIs and other agencies should support Indian business in this process.

The main point is that Indian manufacturing can not and need not depend entirely on the domestic market. Her share of world trade can be raised from the present 0.6% to about 2% by 2005. This may mean that about 20% of the manufacturing output is exported.

6. PUBLIC POLICY

To strengthen Indian manufacturing in the 21st century, we need to address a number of issues in public policy, besides, of course dynamic corporate management action, which we shall take up in the next and including section.

i. Competitiveness - India's ranking for competitiveness by the World Economic Forum has been hovering at a low of around 40 out of 50 important trading nations. This needs improvement through the following kinds of action at the macro level.

ii. Infrastructure - Having embarked on liberalisation, perhaps the single most important area for improvement is in the physical infrastructure. Massive investments are needed in Power, Telecom, Roads, Ports, Airports and Railways[8]. Estimates vary from a minimum of Rs. 100,000 crores to about 200 billion U.S. dollars or Rs. 800,000 crores. A study by A.F. Ferguson & Co. for the CII Logistics 97 conference has particularly documented the high cost of logistics, exceeding the employee and financing costs in many industries. The World Bank sees an inverse correlation between freight costs and share of world trade.

iii. Government Restructuring - A substantial part of the above investment has to come from domestic and foreign private sector. To raise investor confidence and attract such funds, government at central and state levels need to be restructured on the following model -

a. Government to have only the *policy* role[9].
b. An independent, quasi-judicial regulator in each sector, such as the
   - Telecom Regulatory Authority of India (TRAI);
   - Central Electricity Regulatory Commission (CERC) and SERCs; and the
   - Insurance Regulatory Authority.
c. All techno-commercial operations to be corporatised and marketised, such as

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8 *Infrastructure for India Vision 2005*, Address at the Indian Chamber of Commerce, Calcutta, August 1994.

9 *India's Telecom Policy – A Paradigm Shift*, in the Telecommunications Policy Journal of Elsevier, Oxford, 1996.

- the power plants of the State Electricity Boards;
- the telecom service operation of the Ministry of Telecom;
- Ports and Airports.

iv. Bureaucratic Reform - Percolating the spirit of liberalisation in all government departments and agencies, at central, state and field levels; and ending the harassment, delays, petty corruption and *inspector raj* of the lower bureaucracy.

v. Legal Amendments - Pushing quickly through the Parliament and state assemblies all the necessary amendments to old, obsolete, obstructive laws, so as to enable Indian business to proceed with speed as manufacturing investment, location, relocation, expansion, modernisation and other decisions, without any handicap in comparison to their overseas competitors.

vi. Downsizing Government - Transfer scarce resources from unproductive, fixed, inflationary, establishment expenditure to the market, available at lower cost to industry.

vii. PSU Divestment[10] - Proceed rapidly in the direction indicated by the Finance Minister in his 1998 Budget, namely of closing sick units and bringing government holding in non-strategic units to 26%. Use the proceeds for the following kinds of constructive applications –

a. Reduction in the mounting public debt, so as to cut the interest payments.

b. Investment in that part of infrastructure that may not attract private investment, such as
   - Non-toll roads;
   - Rural telephony;
   - Less attractive, but necessary, ports and airports.
   - Targeted, bare minimum subsidies,

c. Social capital investment in health, literacy, education, retraining etc.

viii. Finance Sector Reform - Do not crowd out the private sector from the capital market. Adopt the concept of Private Equity Funds, using parts of Insurance, Provident, Pension and other Institutional Funds for the private sector. Also revive confidence in Primary issues for the retail investor. People are estimated to have lost about Rs. 20,000 crores in failed new issues between 1992 and 95.

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1 0 *Financial and Asset Restructuring of Public Enterprises*, Paper for the ASCI-British Council Seminar, Hyderabad, February 1995.

ix. Supportive Trade Framework - Negotiate with the WTO, trade blocks, agencies and countries to ensure a reasonable period of adjustment for Indian industry to become fully competitive. Where necessary, take quick and adequately punitive anti-dumping action. Protect against threats like the "terminator" seed. Ensure food security. There is no home market growth, without food assurance, not to speak of stability for exports. Act fast on dumping complaints. Strengthen the Anti Dumping Authority. It has less than 10 staff, compared to 300 in US and 185 in EU.

x. Regional Competitiveness - Each state government should attempt to improve its infrastructure and attract appropriate industries. An example is the targeting of the IT industry by the Andhra Pradesh Government, with the Chief Minister himself acting as a *champion*.

xi. Work Culture - Raise the national work culture, by necessary amendments to the old labour laws and procedures, and enact appropriate new laws, including the provision for plant closure and exit, under specified, severe business conditions.

xii. Partnership - Strengthen and sustain the partnership between government and business, so that India, Inc. can become and remain a global manufacturing power in the 21st century.

7. MANAGEMENT ACTION

Indian entrepreneurs and executives must take the following kinds of actions to ensure a bright future for Indian manufacturing.

i. Corporate Manufacturing Vision - Evolve for their own groups, companies and divisions, a long term manufacturing vision, worthy of the India Country and Manufacturing Vision offered earlier in this paper. Communicate, discuss, amend and enrich it as a *shared vision* with all their employees and business partners.

ii. Manufacturing Strategies - Formulate competitive strategies for successful manufacturing, as part of their overall business strategies, keeping in mind the India country comparative advantages of their products; domestic and export demand; and the required success factors. As far as possible, go for world scale and contemporary technology; and cost-competitive plants, as Reliance have done.

iii. Technology - Pursue an optimal mix of acquisition and development of competitive technologies in process, product, packaging and other relevant areas. Spend more on R&D. Reduce the huge gap with MNCs in patents. Hoechst 547, Hindustan Lever 435, Lucas 399,

Bayer 311 and Pfizer 253, against IPCL 4, Ranbaxy 4, SAIL 4, Kirloskar 28, Tata 31. Only Bajaj with 124, patents has leveraged innovation so far for a strong competitive position.

iv. Manufacturing Organisation - Strengthen the manufacturing organisation through competent leadership, necessary expertise, training, learning, incentives and values. Tone up organisational discipline and performance orientation. Take the tough, unpleasant, but necessary decision, such as the recent decision of the A.V. Birla group, requiring all to retire at 60, from 2000 AD, including 100 senior executives now at the level of Vice President and above.

v. Global Quality - Sustain the campaign to achieve and sustain international quality levels, through ISO, TQM and other relevant systems, skills, practices and culture[11].

vi. Cost Competitiveness - Exploit, retain and build on India's inherent labour and material cost advantages. Manage costs through a battery of steps [12]–

a. Cost consciousness, through information sharing;

b. Cost control against demanding *standards*; and cost reduction by using all promising techniques like

- Interfirm comparisons,
- Benchmarking,
- Activity, Based Costing
- Business Process Reengineering
- Value Analysis
- Value Engineering, etc.

vii. Optimal Investment Policies - Careful choice and phasing of manufacturing investments for expansion, modernisation, debottlenecking, retrofitting, diversification etc; and financing them through a competitive mix of equity, debt, domestic and foreign funds and instruments. Reengineer the capital structure and working capital, so as not to erode good manufacturing margins by high financial charges.

viii. Supportive Marketing Strategies - Including distribution reach; brand equity; segmented pricing in the home market; aggressive marginal cost pricing, where necessary, in the export markets; customer service, delight and surprise.

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1 [1] *The Atman, Soul, in Quality*, Paper at the 7th World Congress on Total Quality, Delhi, February 1997.

1 [2] *Strategic Cost Management*, Paper at the Northern Regional Cost Conference, ICWAI, Faridabad, February 1995.

ix. Reinforcing Procurement Strategies - Similarly, in the upstream end, develop a local and/or virtual cluster of strategic vendors and assist them in enhancing the value chain for mutual benefits.

x. Contemporary Systems - Use the amazing power of information technology for better micro planning, operation, participation and contribution. Use e-mail, intranets, extranets, EDI, e-commerce and all emerging applications of e-business. One of the Indian oil majors HPCL has called for bids for a Rs. 100 crores Enterprise Resource Planning package[13].

xi. Sanctions into Opportunity - Inspire all the stakeholders of each business --- customers, dealers, vendors, including SSI, employees, investors and the local community --- to convert the post-Pokhran II sanctions into an opportunity for self-confidence and strengthening the foundations of Indian business. Tap the gold mine of internal cost saving potential to beat the temporary additional cost of sanctions.

xii. Vacated Areas - Compete and take up manufacturing in those sectors being vacated by the richer countries due to mature technologies, labour cost disadvantage and environmental hazards. While occupying such markets, take care to innovate for continuous cost reduction; avoid exploitation of adult, child and female labour; and damage to the local, Indian ecology. A recent A.C. Nielsen survey of Asian youngsters shows that the new generation considers saving the environment to be quite important. The study covered 5,700 young people, from 12 countries of the Asia Pacific, including 825 respondents from Mumbai, Delhi, Chennai, and Bangalore; alas, not Calcutta.

xiii. Joint Ventures - In areas where the technology is still unfolding, fast changing and in need of sustained, heavy investments, partner with a globally competitive MNC. Offer him the India manufacturing advantage. Bring an expertise in managing the local component of the value chain to the table. Engage in good governance to forestall his temptation for 100% ownership. Make the MNC work for mutual advantage. A recent study by an inter-institutional group of FIs on corporate governance concludes that firms led by professionals outperform those run by promoters. The answer may be a healthy partnership of dignity and mutual esteem between both.

xiv. Shake Outs - Participate proactively in your industry's restructuring, either as a stronger acquiror of weaker competitors; or as an acquiree, seeking to merge with the right partners, to the benefit of the

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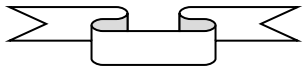
1 3 *Electronic Commerce as Competitive Advantage*, Paper at the Satyam Infoway Seminar, Delhi and Mumbai, August 1997.

stakeholders of both firms. Take advantage of the new M&A Funds being allocated by FIs and large banks[14].

xv. Multiplier Employment - While seeking to be lean and efficient in your own high value addition operations, ensure high indirect contribution to job creation through upstream vendor jobs and downstream dealer, fabricator and customer jobs.

CONCLUSION

The manufacturing sector as a whole has to, and will grow in India for the foreseeable future. Particular sectors, where India has no country advantage may, and should, decline. There are many areas in which India has significant potential advantages. The law of competition is that, alas, threats hit faster, by others' momentum. Opportunities need momentum to capture, from Indian industry and government. Their partnership is critical to actualising the immensely attractive Indian economic and manufacturing vision.



1 4 *Regulatory Dharma for Acquisitions*, Paper at the Conference on the Takeover Code, Institute of Company Secretaries, Delhi, July 1998.