

The Rise of the Indian Software Industry



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India's software Industry

- Critical role of IT sector in India's domestic growth and external balance during the last decade.
- International trade in manufactured goods the engine of growth for east Asia; IT services the engine of growth for India. In both instances, opportunities thrown up by deepening of the communications revolution and globalization.
- Link to liberalization of early nineties: removal of regulatory regimes that distorted resource flows, thus allowing resource transfers to areas of comparative/competitive advantage:
 - Licence-permit regime done away with
 - Anti-export bias removed through reduction in trade taxes and floating of the Rupee.
 - Upheaval in domestic brick and mortar industry and rise of software industry

Rise of India's IT Sector I

Competitive advantages (*a la* Michael Porter)

- Large pool of english speaking university graduates
- Well-positioned international diaspora
- Role of Government
- Role of Y2k
- More than 90,000 professionals from 250 Universities & professional colleges in 2001-02; 2M english speaking graduates: a simulated, not natural, advantage.
- 20M Indians overseas, including 2.5M in USA and 1 M in UK. Includes 200,000 IT professionals in the US, many in senior management positions.
- Pro-active government and NASSCOM: Software parks (enabling clustering?) with good infrastructure, investment in higher education, supportive fiscal measures, including tax and exchange rates.
- The great opportunity that served as a catalyst facilitating the rise of the Indian software industry: one of the demand conditions in Porter's 'Diamond'?

Rise of India's IT Sector II

Comparative advantages (*a la* David Ricardo)

- Lower salaries compared to developed countries
- Nature of IT industry
- Locational advantage
- Salaries 10-50% of US level, enabling savings of 1-15% of non-interest expenditure through outsourcing to India.
- Software and ITES industry not capital intensive, and apart from telecommunications, not very infrastructure-demanding: low capital and high labour intensive industries a natural comparative advantage of developing countries?
- Ideally located to exploit the biggest IT market because of time-zone synergies.

Threats to India's IT sector & possible responses

- Other developing countries catching up.
 - Move up the value chain
 - Investment in R&D and global acquisitions facilitating emergence of Indian IT TNCs
- A new wave of protectionism in services?
 - Aggressive free trade stance in multilateral negotiations
- Appreciating rupee & rising costs because of dutch-disease induced by huge forex inflows.
 - Raise domestic investment and growth in industry & agriculture
- Domestic software demand weak
 - Increase competitive pressures through lower industrial tariffs, improve telecom penetration, and move towards e-governance.
- Hardware sector lagging behind and globally non-competitive
 - Increase competitiveness of manufacturing sector.
 - Boost domestic software demand.