CHINA AND INDIA: OPPORTUNITIES AND THREATS FOR THE GLOBAL SOFTWARE INDUSTRY
Objectives Of The Talk

This talk will provide answers to two important questions:

1. How does the Chinese software industry compare and contrast with the Indian software industry?
2. How will China and India shape the future of global software industry?
Agenda

• The Competitive Context
• Why Chinese and Indian Software Industries Matter
• Comparative Analysis of Chinese and Indian Software Industries
• China & India: Competitive Strategies and Interrelationships
• China and India: Implications for Global Software Industry
• Questions & Answers
Clarifying The Focus and Nature Of The Talk

• This talk focuses on software industries in China and India, *not* on China and India at a macro level
• The talk makes a deliberate attempt to not overwhelm the audience with data; *instead*, important perspectives, prognosis, and strategic insights derived from large scale qualitative and quantitative data are emphasized
The New Competitive Landscape

- The era of ICT-led globalization...“born global” companies...and flattening of the world
- Emergence of the global village...falling market barriers...global mobility of factor inputs...and increasing economic integration
- The shifting geographies of innovation...emergence of BRIC nations from underdogs to tigers...China and India shaping the new tech world order
- Diminishing importance of national systems of innovation
- The increasingly horizontal future of business...rising cost pragmatism...and multiplying complexity of innovation
- The chief globalization officers are arriving...the dawn of reverse globalization
- Software-centered lives...industries...and competitiveness
Key Trends in the Software Industry

• Software industry is in the midst of a dramatic revolution
  – Accelerated pace of innovation and technological discontinuities (Web 2.0)
  – Googalization of the enterprise and emergence of new business models (Software As A Service)
  – Re-emergence of software factories
  – Blurring boundaries between products and services

• Software consuming 40% of CIO and 60% of CTO budgets
## The Software Industry Value Spectrum

<table>
<thead>
<tr>
<th>Economic Factors</th>
<th>Technological Factors</th>
<th>Demographic Factors</th>
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<tbody>
<tr>
<td>Software and IT Services</td>
<td>IT Solutions</td>
<td>IT Consulting</td>
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<tr>
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<td>IT Consulting</td>
<td>Software Products</td>
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**Deependra Moitra Consulting**

**Partners in Global Innovation**
Software Industries in China and India—A Snapshot

- China and India are the two fastest growing economies in the world (~ 8% GDP)
- China and India are the two top destinations for global foreign direct investment (FDI), including for software and IT
- China and India both have a heavy concentration of MNEs
- China and India offer burgeoning markets for software and IT services
- The software industry in China and India are growing at a phenomenal rate (5-year CAGR >30%)
- China and India employ 650,000 and 1.5 million people respectively in software industry
Evolution and Growth Trajectories of the Software Industry in China and India

Converging Paths in a Globalised World

China
Domestic Market Focused

India
Export Oriented
Comparative Analysis of Chinese and Indian Software Industries: The Framework

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Opportunities</th>
<th>Threats</th>
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<tbody>
<tr>
<td>Political</td>
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<td>Economic</td>
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<td>Social</td>
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<td>Technological</td>
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<td>Legal</td>
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### Comparative Analysis of Chinese and Indian Software Industries

<table>
<thead>
<tr>
<th>STRENGTHS</th>
<th>INDIA</th>
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<tbody>
<tr>
<td>CHINA</td>
<td>INDIA</td>
</tr>
<tr>
<td>Strong government back-up</td>
<td>Favorable policies (1991 reforms)</td>
</tr>
<tr>
<td>Scale and cost advantages</td>
<td>Scale and cost advantages</td>
</tr>
<tr>
<td>Co-location with manufacturing</td>
<td>Established leadership in exports</td>
</tr>
<tr>
<td>Domestic market</td>
<td>Global FDI due to superior capability</td>
</tr>
<tr>
<td>Chinese Diaspora</td>
<td>Multi-country footprint</td>
</tr>
<tr>
<td>Global FDI due to market opportunities</td>
<td>Versatile technical skills base</td>
</tr>
<tr>
<td>State R&amp;D investments</td>
<td>Multiplicity of business models</td>
</tr>
<tr>
<td>World class infrastructure</td>
<td>Brand and customer relationship capital</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>WEAKNESSES</th>
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</tr>
</thead>
<tbody>
<tr>
<td>CHINA</td>
<td>INDIA</td>
</tr>
<tr>
<td>Fragmented industry and firm stability</td>
<td>IPR enforcement</td>
</tr>
<tr>
<td>IP regime</td>
<td>Meager intellectual property reservoir</td>
</tr>
<tr>
<td>Operational capability</td>
<td>Relatively lower domain skills</td>
</tr>
<tr>
<td>English language proficiency</td>
<td>Management of large, complex, integrated deals</td>
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<tr>
<td>Project management and process skills</td>
<td>Overdependence on US markets</td>
</tr>
<tr>
<td>Experience with business models</td>
<td>Physical infrastructure</td>
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<tr>
<td>Limited access to international markets</td>
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<tr>
<td>Small deals, meager revenues</td>
<td></td>
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<tr>
<td>Convoluted corporate governance</td>
<td></td>
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<tr>
<td>Brand and reputation</td>
<td></td>
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<tr>
<td>Institutional framework</td>
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</tbody>
</table>
### Comparative Analysis of Chinese and Indian Software Industries

**OPPORTUNITIES**

**CHINA**
- R&D outsourcing
- Embedded systems software
- Applications and maintenance deals
- Innovative, low cost products
- Domestic market boom
- BPO for Japanese, Korean, Hong Kong and Taiwanese firms
- Develop and harness partnerships
- Establish supremacy in select verticals

**INDIA**
- R&D and engineering services
- Growing global IT spend and offshoring due to cost consciousness
- Large, multi-year outsourcing deals
- Integrated IT+BPO deals
- High-end consulting, business solutions
- Rapidly growing domestic market
- Leverage global alliances
- Globalization and inorganic growth
- Niche application products

**THREATS**

**CHINA**
- Firm scale expansion and accumulated learning management
- Industry consolidation
- Failure to expand services, vertical and geographical footprints
- Continued reliance on cost-based positioning
- Process maturity and domain capability
- Securing large, annuity deals
- R&D investments leverage
- Handling western customers

**INDIA**
- Sustain cost attractiveness
- Increasing margin pressure
- Growing MNE presence due to proven offshoring model
- Changes in immigration regulations
- Commoditization of basic IT services
- Management of new paradigms and disruptive trends
- Failure to accomplish non-linear growth
- R&D based differentiation
Market Segmentation of Global Software Industry

Segmentation
- Customer/Market Need Analysis and Spending Patterns
- Production Costs
- Service/Delivery Costs
- Heterogeneous versus Homogenous Markets/Needs
- Comparative Advantage (degree of competition)
- Competitive Advantage (availability of substitutes)
- Profitability Potential

Focus

Competitive Strategy

Demographic
- Geographic
  - Domestic
  - International

Offer Type
- Established
- Versus
- Emerging
- Products
- Services
Market Segmentation of Global Software Industry

Adopted from Heeks (1987)
China and India: Competitive Positioning Strategies—Environmental Analysis

Competitive Scenario for the Indian and Chinese Software Industries

- Business Environment Policies
- Macro Environment Infrastructure
- Supply Side Constraints
  - Human Capital
  - Financial Capital
- Intensification of Competition Due to New and Emerging Entrants
- Competition and Rivalry within the Industry
- Barriers to Entry
  - Resources
  - Capability
  - Brand
- Demand Side Scenario
  - Bargaining Power of Customers
- Business Disruption
  - Threat of Offerings
  - Substitutes

Adapted from Porter (1985)
China and India: Competitive Positioning Strategies—The Framework

Competitive Strategy
- Cost Leadership
- Differentiation
- Focus

Competitiveness Levers
- Globalization
- Diversification
- Alliances & Partnerships
- Acquisitions

Growth Strategy
- Scaling
- Duplication
- Granulation
- Adaptation

Value Disciplines
- Operational Excellence
- Customer Intimacy
- Superior Performance
- Knowledge Management
Customer and Market-Oriented Strategies for China and India
# India – Opportunity Matrix and Competitive Positioning Strategies

## Services
- High-end consulting
- Integrated ADM + BPO
- KPO and Analytics
- Large outsourcing deals
- Vertical business solutions
- R&D Services (‘lab on hire’)
- SME (Software as Service)
- EMEA and APAC

## Products
- Applications Products (Retail, Banking, etc.)
- Communication software products (mobile/wireless)
- Media products, games
- IP licensing
- Emerging products for the emerging markets

### Domestic
- Full range of IT services
- Business solutions
- Internet applications
- Educational services
- Mobile applications
- SME (Hosted services)
- e-Governance

### International
- Application Products (e.g. retail and corporate banking)
- Digital media, games healthcare, low-cost ATMs
- Packages for retail, pharma
- Products for the defense and space sectors

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Leverage Value Disciplines

Sustain Cost Leadership

Globalization & Acquisitions

Duplication

Disrupt the Large Outsourcing Deals Space

Transformation Play

Granulation

R&D Investments

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Deependra Moitra Consulting
Partners in Global Innovation
China – Opportunity Matrix and Competitive Positioning Strategies

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<td>International</td>
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<tr>
<td>• Full range of IT services</td>
<td>• Application development and maintenance services</td>
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<tr>
<td>• Business solutions</td>
<td>• BPO for the neighboring countries</td>
</tr>
<tr>
<td>• Internet/e-commerce applications</td>
<td>• Open source software economies</td>
</tr>
<tr>
<td>• Educational services</td>
<td>• SME sector</td>
</tr>
<tr>
<td>• Mobile applications</td>
<td>• R&amp;D services</td>
</tr>
<tr>
<td>• SME sector</td>
<td>• Internet, cellular and IP telephony products</td>
</tr>
<tr>
<td>• e-Governance</td>
<td>• Automotive products</td>
</tr>
<tr>
<td>• Games and animation</td>
<td>• Digital entertainment products</td>
</tr>
<tr>
<td>• Low cost products involving embedded systems (consumer electronics, devices)</td>
<td>• Open source products</td>
</tr>
<tr>
<td></td>
<td>• Emerging products for the emerging markets</td>
</tr>
<tr>
<td></td>
<td>• Packages for the domestic markets (e.g. accounting, CRM, SCM, etc.)</td>
</tr>
</tbody>
</table>

- Establish Value Disciplines
- Cost Leadership
- Globalization & Global Partnerships
- Duplication
- Granulation
Interrelationship Between Chinese and Indian Software Industries

- India’s success as first-mover in the global software and IT services arena has only catalyzed China’s accession to the offshore services space
- Significant concentration of all major MNEs
  - In China, primarily for tapping the local market opportunities and for coordination with manufacturing
  - In India, both for market reasons and global innovation
  - Raging a war for talent but also helping capability build-up
- China and India have the potential to form software-manufacturing alliances, leveraging complementarities and emerging stronger together
Interrelationship Between Chinese and Indian Software Industries

• The Indian software companies are intensifying their presence in China for
  – Addressing the local and neighboring market opportunities
  – Serving the global clients
  – Intangible interrelationships – transfer of know-how and skills
• Indian companies like NIIT and Apple have strong foothold in the Chinese training marketplace
• Chinese software companies are setting up base in India for access to software capability (e.g. Huawei)
China and India: Implications for Global Software Industry

• The booming services business requires scale that only China and India can offer and replicating years of capability build-up will be challenging
  – A major portion of the software and IT services pie will be dominated by India and China
• The dominant product players are likely to retain their foothold in the near term unless the open source phenomenon sweeps the market in a big way and SaaS business models become pervasive
  – However, the stage is set for reverse globalization disruptions from India and China, especially in niche applications innovation space
Thank You!

Discussion/Questions