Outsourcing and Offshoring

A Discussion at University of California at Santa Cruz

Jan 26, 2006

Definition of Offshore Outsourcing

Offshore Outsourcing is the management and/or day-to-day execution of a project, process or the entire function by a third party service provider using resources predominantly off premises in a separate country.
Agenda

• A Snapshot of the Macro-Economics of Outsourcing/Off-shoring
• Understanding the essence of offshore outsourcing
• Overview of Infosys Technologies
Key Drivers of Offshore Outsourcing Trend

Globalization
- Economic reforms in emerging markets
- Access to quality resources in lower cost markets

Significant performance pressures
- Lower earnings
- Higher customer service expectations

Technology advances
- Communication and networking
- Internet
- Applications and Infrastructure

Business IT alignment issues
- Service level improvement
- Improving ROI of IT investments

How are US companies responding to the business pressures in a global economy?

<table>
<thead>
<tr>
<th>Pre-1995</th>
<th>1995-2003</th>
<th>Beyond 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company’s responsibility</td>
<td>Core processes</td>
<td>Cost savings for operational efficiencies</td>
</tr>
<tr>
<td></td>
<td>Supporting processes</td>
<td>Core competency focus for better margins</td>
</tr>
<tr>
<td></td>
<td>IT operations</td>
<td>External technologies for cross-company collaboration</td>
</tr>
<tr>
<td></td>
<td>Core processes</td>
<td>Always-on infrastructure for global business</td>
</tr>
<tr>
<td></td>
<td>Supporting processes</td>
<td>IT operations</td>
</tr>
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<td></td>
<td>IT operations</td>
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</tbody>
</table>
What have been the top three reasons for using or considering outsourcing?

- Leverage vendors' lower cost structure: 63%
- Leverage vendors' technology expertise: 43%
- Leverage vendors' process expertise: 43%
- Executive mandate to cut costs: 37%
- Free up internal resources for more strategic processes: 31%
- Shedding non-core operations: 30%
- Cut the number of people on the payroll: 13%
- Leverage vendors' re-engineering skills: 11%
- Remove fixed assets from our balance sheet: 7%
- Could not handle the spikes and drops in processing volume: 7%

Source: Forrester

Supply-Demand

While the traditional big spenders are facing a shortfall in the supply of IT services, offshore destinations like India have a surplus.

- Demand – Supply Gap Percent
- Shortfall
- Surplus

<table>
<thead>
<tr>
<th>Country</th>
<th>IT Services Demand &amp; Supply 2001, $Billion</th>
<th>Supply (Country Production/Turnover)</th>
<th>Demand – Supply Gap Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>15.6</td>
<td>13.7</td>
<td>19%</td>
</tr>
<tr>
<td>USA</td>
<td>52.5</td>
<td>42.5</td>
<td>10%</td>
</tr>
<tr>
<td>UK</td>
<td>23.6</td>
<td>46.6</td>
<td>46%</td>
</tr>
<tr>
<td>India</td>
<td>11.3</td>
<td>10.0</td>
<td>-6%</td>
</tr>
<tr>
<td>China</td>
<td>3.7</td>
<td>4.9</td>
<td>-32%</td>
</tr>
<tr>
<td>Philippines</td>
<td>5.5</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

Note: Demand side numbers are from Gartner, while the source for supply side varies for each country.
Off-shoring offers cost savings and the advanced process engineering savings that are critical to achieving the full potential of outsourcing.

**Clear Cost Advantages**

Offshore Services Outsourcing Cost Structure

<table>
<thead>
<tr>
<th>Intended Outsourcing Benefits</th>
<th>Factor Cost Savings</th>
<th>Added Telecom Costs</th>
<th>Added Mgmt Costs</th>
<th>Offshore Cost Base</th>
<th>Potential Cost Base for US firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce and control operating costs</td>
<td>100</td>
<td>-60</td>
<td>+5</td>
<td>+10</td>
<td>55</td>
</tr>
<tr>
<td>Improve company focus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-5</td>
</tr>
<tr>
<td>Gain access to world class expertise</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-10</td>
</tr>
<tr>
<td>Accelerate re-engineering benefits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>Improving functions difficult to manage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make capital funds available</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generate new competencies</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Potential Cost Base for US firms**

100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70

**Engineered And Process Improvements**

- Factor Cost Savings
- Added Telecom Costs
- Added Mgmt Costs
- Offshore Cost Base
- Potential Cost Base for US firms

**Offshore Destinations**

India is consistently ranked as the clear global leader by independent opinion leaders.

**Leading Analysts Favor India**

- Rita Terdiman of Gartner
  - India's highly trained IT workforce is a rich and vast resource for offshore contracting. The demands of today's Internet economy for 'faster, better, cheaper' make the Indian outsourcing model a leader in this space.

- Stephanie Moore, Giga research
  - China will not effectively address its challenges until 2007 through 2010.

- Gartner Research Group
  - "By 2005, four or five Indian companies will become dominant IT service providers on a global scale."

**India**

- **Location attractiveness**
  - Infrastructure
  - Communication
  - Basic Infrastructure
  - Country risks/FDI incentives
  - Attractive incentives
  - Political environment
  - Time zone attractiveness

- **Capabilities of workers**
  - Qualifications/Capabilities
  - Foreign languages (primarily English)
  - Quality of work/Work ethic
  - Cost differential

**Sources:** McKinsey & Co, Gartner, Infosys Analysis
Agenda

• A Snapshot of the Macro-Economics of Outsourcing/Off-shoring

• Understanding the essence of offshore outsourcing
  – The Global Delivery Model

• Overview of Infosys Technologies

The Global Delivery Model (GDM) is the core element of managed solutions

• The Global Delivery Model (GDM) is based on splitting & carrying out each unit of work in accordance with the following principles:
  – where it can be done best
  – where it makes the most economic sense, with the least amount of acceptable risk
  – to match the corresponding service levels, and
  – in such a way that it complements the work done elsewhere

• GDM offers significant & measurable value to clients globally. Some of the benefits large clients have realized are:
  – Access to world class infrastructure and a large pool of highly skilled resources.
  – Quicker time to market
  – Cost commensurate with SLAs
  – Just-in-time resourcing
  – Predictability & Quality of deliverables
GDM makes strategic sourcing into a powerful tool for IT management

This approach is to build a strategic sourcing partnership on the foundations of our global delivery model.

GDM relies on the optimal use of multiple factors regarding nature of work

- **Client proximity & relationships**
- **Live feedback and inputs**
- **High cost**

- **Local talent & cultural sensitivity**
- **Rapid response & verification**
- **Access to client personnel & infrastructure**
- **Redundancy & backup site**

- **Large resource pool**
- **Economies of scale**
- **Cost-effective infrastructure**
- **Low cost**
Determining what to move involves a comprehensive, rigorous evaluation of IT offshore opportunities across technologies, functions and internal IT structures.

**What to move, What not to move**

### APPLICATION PORTFOLIO OFFSHORE OPPORTUNITIES

**OPPORTUNITY FILTER**

<table>
<thead>
<tr>
<th>FILTER APPLICATIONS</th>
<th>REVIEW</th>
</tr>
</thead>
<tbody>
<tr>
<td>What elements should not be offshored?</td>
<td>Every 2-3 years</td>
</tr>
<tr>
<td>Core competencies</td>
<td></td>
</tr>
<tr>
<td>Functions that cant be performed by 3rd Party with equivalent performance</td>
<td></td>
</tr>
<tr>
<td>What elements should not be offshored?</td>
<td>Annually</td>
</tr>
<tr>
<td>Firm mandates/ untouchables</td>
<td></td>
</tr>
<tr>
<td>Physical or infrastructural constraints</td>
<td></td>
</tr>
<tr>
<td>Regulations compliance</td>
<td></td>
</tr>
<tr>
<td>What elements have significant roadblocks?</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Work in progress (Active projects, upgrades, conversions, implementation and rollout)</td>
<td></td>
</tr>
<tr>
<td>Life cycle management (impending retirement, unclear roadmap)</td>
<td></td>
</tr>
<tr>
<td>High firm risk (Revenue impact, sensitive data or intellectual capital)</td>
<td></td>
</tr>
<tr>
<td>Specialized technical or business knowledge</td>
<td></td>
</tr>
<tr>
<td>Contractual obligations</td>
<td>Evaluate immediately</td>
</tr>
</tbody>
</table>

Post-evaluation, it is essential to weigh potential benefits of moving offshore versus ease of migration, and their importance to the overall offshore strategy.

**Prioritizing IT Offshoring Opportunities**

- Cost savings
- Service levels
- Quality
- Speed
- Productivity
- Flexibility
- Innovation
- Complexity
- Organizational readiness
- Business risk

Evaluate immediately

Consider

Offshore

Ease of migration

Remove from consideration and review later
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  - The Global Delivery Model
  - CMM Processes
- Overview of Infosys Technologies

Introducing Software Engineering Institute CMM certification

The Software Engineering Institute (SEI) is a federally funded research and development center sponsored by the U.S. Department of Defense through the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics [OUSD (AT&L)] and operated by Carnegie Mellon University.

SEI developed Capability Maturity Models (CMM) to:
- Address software engineering and other disciplines that have an affect on software development and maintenance
- Provide integrated process improvement reference models
- Build broad community consensus
- Harmonize with related standards
- Enable efficient improvement across disciplines relevant to software development and maintenance
CMM Levels

- **Level 1**
  - No application development (AD) process in place
  - Ad hoc development of software

- **Level 2**
  - Basic AD process in place
  - Limited process discipline

- **Level 3**
  - Documented, standardized and integrated AD process
  - Rigorous process discipline

- **Level 4**
  - Level 3 processes + KPIs on process and product / project quality

- **Level 5**
  - Level 4 processes + continuous improvement

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Infosys Today - A Partner with a Broad Services Footprint and a Proven Track Record...

- Zero debt company with sound cash reserves
- 45 continuous quarters of growth in top & bottom-line ever since going public
- Acknowledged as one of the most transparent companies by CLSA Survey 2002
- 90%+ repeat business
- 90%+ solutions on-time/on-budget

$2.0 B+ revenues (FY06 projected), and growing

425+ clients and 37000+ Employees

Infosys Certifications
- CMMI Level 5
- PCMM Level 5
- ISO 9000/TickIT
- ISO 9001-2000
- BS7799
- BS15000

... recognized for its ability to innovate

The Wired 40 – “They are masters of innovation, technology, and strategic vision - 40 companies driving the global economy.”

Wired Magazine, May 2005

BusinessWeek online
June 20, 2005

InfoTech Top 100
- Infosys is ranked 10th
- Highest ranked IT services firm
- Accenture # 31 and IBM # 44

1. Apple
2. Google
3. Samsung
4. Amazon. COM
5. Yahoo!
6. Electronic Arts
7. Genentech
8. Toyota
9. Infosys Technologies
10. eBay
11. SAP
12. Pixar
13. Cisco
14. IBM
15. Netflix
16. Dell
We provide broad, integrated and end to end portfolio of services to our clients

**STRATEGY & IT CONSULTING**
- Business Process Reengineering
- CAD/CAM, PDM, Embedded Services
- Business Application Development

**INTEGRATED ROADMAP**
- e-Business
- Cross-industry Processes
- Industry Specific Processes

**SYSTEMS INTEGRATION**
- ERP
- CRM
- BI

**ENTERPRISE APPLICATION INTEGRATION**
- SCM

**PACKAGE RELATED SERVICES**
- Design
- Development

**CUSTOM APPLICATION DEVELOPMENT**
- Test
- Deploy

**BUSINESS PROCESS MANAGEMENT**
- Progeon Ltd - An Infosys subsidiary

**INFRASTRUCTURE MANAGEMENT**
- Communication Service Providers

**APPLICATION MAINTENANCE AND SUPPORT**
- Retail

We have developed a global presence and scalable infrastructure to service our global client base

**TOTAL OUTSOURCING SOLUTION**

**VERTICAL PRESENCE**
- IT Tech and Discrete Manufacturing
- Transportation & Logistics
- Financial Services
- Insurance & Healthcare
- Energy & Utilities
- Auto and Aerospace

**IN-FIRM SERVICES**
- Cross-industry Processes
- Industry Specific Processes

**DEVELOPMENT CENTERS**
- Development Centers in US, Canada, China, UK and India
- Disaster Recovery Center in Mauritius
Infosys Today - Gartner Quotes...

“Gartner Perspective on Infosys

"Infosys Technologies is a leading global professional services company with a number of Fortune 500 clients. It has won many of these clients against competition from the Big Five.

Infosys has a strong methodology practice that is systematic throughout the entire enterprise to ensure consistency and credibility.

A solid knowledge management and knowledge transfer framework is disciplined in the company to convey best practices to all internal employees globally which further strengthens Infosys’ positioning and offering."

Rita Terdiman, vice president and research director, Gartner, Inc.

Our Value Proposition to our Clients

• Strong domain expertise, given our experience with airlines, cruise lines, destination resorts, tour operators and entertainment companies
• End to end service offering (consulting + process re-engineering + technology implementation), ensuring value capture for our clients from their technology investments
• Cost Effectiveness – using our mature and robust Global Delivery Model
• Partnership Approach – flexible and innovative
• Consistent Track Record – 90% + projects executed on time and on budget or better
• Proven Program/Project Management Capability
• Proven Rapid Development Methodology
• Scalability of our approach
Additional Information

Corporate Information: http://www.infosys.com

Annual reports / other key financial data: http://www.infosys.com/investor/reports.asp