Portfolio Management for IS Outsourcing

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Key Risks in Int’l Outsourcing

• **Systemic risk** (like market risk in finance)
  – Geography (onshore, near-shore, offshore)

• **Specific risk** (IS type or firm-specific)
  – System development life cycle (SDLC) phase
  – Business process areas

• Recognize that outsourcing performance is based on **expected benefits** offset by **volatility of performance**

### Risk-Return-Rating (R^3) Method

- **Distribute business functions or systems development phases across several geographies to optimize risk to return**
- **Score between 1 and 0**
  - Lowest Risk = 0
  - Highest Risk = 1
- **Score between 1 and 10**
  - Lowest Return = 1
  - Highest Return = 10

#### Domains of Potential Returns

<table>
<thead>
<tr>
<th>Geographies / Cities</th>
<th>Risk Coefficient</th>
<th>Cost Reduction</th>
<th>Quality Improvement</th>
<th>Productivity Improvement</th>
<th>Business Continuity</th>
<th>Operational Flexibility</th>
<th>Risk-Return Rating (R^3 Rating)</th>
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</thead>
<tbody>
<tr>
<td>Offshore</td>
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<td>Near-Shore</td>
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<td>Onshore</td>
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Risk is a function of the relative change over time of Economic (e.g. exchange rates), Financial (e.g. tax structures), Regulatory, Labor, and Political factors.

**Risk = \((\text{Risk Coefficient} \times \text{Return} \#1) + (\text{Risk Coefficient} \times \text{Return} \#2) \ldots\)**

The total score is the sum of the individual Potential Return ratings multiplied by the Risk Coefficient. The lower the total score for a specific city or geography, the lower the overall risk.

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Risk-Return Relationship Thinking

Efficient Frontier Thinking

- Goal: Maximize return on outsourcing, minimize risk
- Approach: Build portfolio, diversify risk, achieve effective return
- You get to diversify your int’l outsourcing choices
- The more project assets are diversified in a portfolio, the greater the opportunity to achieve the efficient frontier
Suggested Reading

For general background, the following articles would be a good starting point:

For specific insights related to international outsourcing:

Other reading on this perspective that may be helpful should focus on the basics of Markowitz’s “efficient frontier” concepts and basic portfolio theory:
Contracting and IS Outsourcing Decisions

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Key Questions

• What should we consider when making outsourcing decisions?
  – Risks
  – Costs
  – Value

• What to outsource?
  – Business processes
  – SDLC considerations again
Transaction Costs, Agency Relationships

- Degree of outsourcing: determined by tradeoffs between production costs and transaction costs
- Focus: minimizing overall costs

<table>
<thead>
<tr>
<th></th>
<th>Production Costs</th>
<th>Transaction Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outsourcing</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Insourcing</td>
<td>High</td>
<td>Low</td>
</tr>
</tbody>
</table>

“Incomplete” Contracts

- Asset ownership critical: most contracts incomplete
- Ownership affects bargaining power and incentives for asset-specific investments
- Contractible vs. non-contractible investments
  - **Contractible investments**: written in a contract; examples: hardware and software purchases
  - **Non-contractible, intangible investments**: depend on parties’ incentives; cannot be enforced by a contract; examples: data quality, personnel expertise
- Focus: maximizing value created by assets
Implications for IS Outsourcing

• Non-contractibility affects outsourcing choices
  – Standardized applications: good candidates for outsourcing (HR, Finance/Accounting)
  – Applications with major non-contractible aspects: insourcing may be more desirable (CRM)
  – Contractibility increases over time in SDLC

• Vendor’s knowledge/expertise matters
  – Make sure vendor has ability to deliver IS services to diminish contracting headaches
Suggested Reading

For an introduction to transaction costs and agency theory thinking:

For an application of transaction cost thinking to IS outsourcing:
IS Outsourcing in Asia

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IS Outsourcing Leaders, Up-and-Comers, and Beginners
China

• Pros:
  – A large pool of low cost labor
    • Average salary of a programmer: $3000-8000/year
    • 20-40% less than India, 1/6 of U.S.
    • Software professionals increase by 20,000/year
    • IT professionals with overseas experience are returning back
  – Political stability and a strong economic environment
  – Physical proximity to major markets, prosperous domestic market, Japan and South Korea
  – Special economic zones: tax breaks, good infrastructure

• Cons
  – Language and cultural differences
  – Intellectual property rights issues
Current Status and Prospects

- IBM, Microsoft, HP, Accenture have IT services support in China
- Indian IT services firms outsource to China
  - Tata, Wipro, Infosys
- Major providers: Huawei, Asia Info, BroadenGate
- Strength is programming; weakness is systems integration and project management
- By 2007, outsourcing revenues expected to reach US$27 billion (Gartner Group)
Vietnam

• Pros:
  – Low cost: 40-50% less than India
  – Good government support

• Cons:
  – High infrastructure charges
  – Language

• Bottom line: small-scale application development and maintenance

• Customers: Cisco, IBM, Nortel, Merrill Lynch
Suggested Reading

– A Buyer’s Guide to Offshore Outsourcing, *CIO Magazine*, November 15, 2002. 64.28.79.79/offshoremap/


