The Asian Sourcing Boom

Webcast
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Summary

• The obvious
  • Large labor cost differentials
  • Structural underpinnings
  • Declining communications costs
  • Low-cost sourcing a top priority
  • Sharply rising emphasis
  • Offshoring of production
  • …Which is driving more imports
  • Business process outsourcing

• The view to 2050
  • Major demographic shift
  • Too much retirement
  • Excess liquidity
  • Shift of economic growth to Asia
  • Transfer of know-how

• Implications
  • Ask the right questions
  • Mill Rolls 2006
  • Manage innovation
  • Leverage connections
  • Build the capacity you need
  • Protect your interests

• Study results
  • 3rd State of Strategic Sourcing Study
  • Study background
  • Participating companies
  • Extent of LCCS today
  • Savings realized
  • The learning curve
  • Distribution of savings
  • Investment in LCCS
  • LCCS in 5 years (2011)
  • China, China, China
  • Industry in China, by region
  • Largest challenges
  • Largest risks
The Obvious
Large Labor Cost Differentials

Hourly Labor Costs by Country
U.S. $ / Hour

Sources: Bureau of Labor Statistics, Computerworld
Structural Underpinnings

- Standard of living
- Age
- Health costs
- Human rights
- Legal protections
- Environmental values
- Plus:
  - Exchange rates

National Expenditure on Health as a Percent of GDP

Source: U.K. Committee on Public Accounts
Declining Communications Costs

- Internet, webcast, etc.
- Phone rates
- Travel

International Calling Rates: OECD Countries to any other OECD Country

Source: OECD, Boston Logistics Group analysis
Low-Cost Sourcing a Top Priority

“Which business drivers are likely to have the most influence on your company’s purchasing strategies in the next 10 years?”

- **Globalization**
  - Low-cost country sourcing
  - Growth markets

- **Cost leadership**
  - A bid qualifier, not an order winner
  - Even the high-end

- **Innovation**
  - Shorter product lifecycles
  - Technology / R&D

- **Outsourcing**
  - Core competency
  - Faster time to market

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Source: Economist Intelligence Unit data, April 2005
Sharply Rising Emphasis

- 37% increase in CPO interest
Offshoring of Production

Share of World Consumption

<table>
<thead>
<tr>
<th>Year</th>
<th>China</th>
<th>U.S.</th>
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<tbody>
<tr>
<td>2005</td>
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<td>2006</td>
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<td>2007</td>
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<td>2008</td>
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<tr>
<td>2009</td>
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Share of World Production

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<td></td>
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<tr>
<td>2009</td>
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Source: Economist Intelligence Unit
...Which is Driving More Imports

Sources: EIU WorldData
Business Process Outsourcing

Increasing the amount of external spend

- Traditional outsourcing
  - Call Centers
  - Logistics
  - Manufacturing
  - I.T.

- Emerging off-shoring models
  - Research & Development
  - Diagnostic testing
  - Lab services
  - Procurement

“This transforms Purchasing’s job from transacting orders to running virtual factories”
– Barbara Kux, CPO Royal Philips

Sources: EIU, Nasscom
The View to 2050
Too Much Retirement

Source: The Future for Investors, Jeremy Siegel
Excess Liquidity

Incremental Population in 2050 vs. 2005 (millions of people)

Source: The Future for Investors, Jeremy Siegel
Shift of Economic Growth to Asia

GDP Growth

% Year

0% 2% 4% 6% 8% 10%

U.S  China  India  Korea  ASEAN

Source: Economist Intelligence Unit

Notes: ASEAN includes Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam.
Transfer of Know-How

• China graduating 3 times as many Engineers as the U.S. (44% of undergraduates vs. 2% in the US)
• Chinese population growth: 3.3M/year
• US engineering graduates declining by 1%/year

U.S. vs. Chinese Engineering Graduates

Sources: National Science Foundation, CIA Factbook, Boston Logistics Group analysis of UN data
Study Results
Study Background

- 92 respondents
- 14 countries
- Supply chain & procurement focus
  - 50% in procurement
  - 47% in supply chain
  - 3% other C-level
- Broad representation
  - $3.7 billion average revenue
  - Mix of small, medium and large enterprises
- Interviews

Respondents by Supply Chain Type™

- Pure Services
- Physical Distribution
- Mfg - Continuous Flow
- Mfg - Discrete or Batch
- Mfg - Design to Order
Participating Companies

- Aerospace & Defense
  - Avionics manufacturer
  - Shipbuilder
  - Aircraft parts manufacturer
- Automotive & Transport Equipment
  - Automaker
  - Tire manufacturer
  - Power transmission manufacturer
- Contract manufacturing
  - Contract electronics manufacturer
  - Construction company
  - Electro-coating company
- Chemicals & Plastics
  - Plastics company
  - Agribusiness manufacturer
  - Smelting and recycling company
- Consumer Products
  - Spirits producer
  - Processed food manufacturer
  - Home accessories company
- Distribution & Wholesaling
  - MRO distribution company
  - Wholesale grocer
  - Logistics company
- Electrical & Electronics
  - Instrument manufacturer
  - Consumer electronics company
  - Lighting and wiring manufacturer
Participating Companies

- **Machinery & Equipment**
  - Semiconductor equipment mfr.
  - Electronic circuit machinery mfr.
  - Printing press manufacturer
- **Instrumentation & Devices**
  - Particle analysis equipment mfr.
  - Spectrometer manufacturer
  - Lab equipment manufacturer
- **Paper, Pulp, and Packaging**
  - Paper manufacturer
  - Lumber products distributor
  - Office supplies manufacturer
- **Pharmaceutical & Life Sciences**
  - Pharmaceutical manufacturer
  - Biopharmaceutical research firm
  - Drug dispenser solution company
- **Professional Services**
  - Financial services company
  - Insurance company
  - I.T. outsourcing firm
- **Retail**
  - Multinational grocery chain
  - Wireless technology retailer
  - Department store holding company
### Extent of LCCS Today

- 54% are seriously engaged
- A way of life for about 30%

### Extent of LCCS

<table>
<thead>
<tr>
<th>Percent of Spend in Low-Cost Countries</th>
<th>Percent of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 50%</td>
<td>6%</td>
</tr>
<tr>
<td>40-50%</td>
<td>5%</td>
</tr>
<tr>
<td>30-40%</td>
<td>8%</td>
</tr>
<tr>
<td>20-30%</td>
<td>9%</td>
</tr>
<tr>
<td>10-20%</td>
<td>23%</td>
</tr>
<tr>
<td>0-10%</td>
<td>46%</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>20%</strong></td>
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Savings Realized

- 13% average net savings
- 50% “experience premium”

Average Savings Realized from LCCS

Percent Savings vs. Traditional Sources

Average

Heavy Users
The Learning Curve

- Accessing real-time information
- Setting realistic goals and objectives
- Controlling goods in the pipeline

Logistics Providers Serving China

<table>
<thead>
<tr>
<th>Western Firms</th>
<th>Chinese Carriers</th>
<th>Chinese 3PLs</th>
</tr>
</thead>
<tbody>
<tr>
<td>APL</td>
<td>China Materials Storage and Transportation Co.</td>
<td>China Overseas Logistics</td>
</tr>
<tr>
<td>BAX</td>
<td>Maersk</td>
<td>EAS</td>
</tr>
<tr>
<td>Danzas</td>
<td>Panalpina</td>
<td>Hurry Top</td>
</tr>
<tr>
<td>DHL</td>
<td>Schenker</td>
<td>Jiuchuan Logistics</td>
</tr>
<tr>
<td>Exel</td>
<td>TNT</td>
<td>PGL</td>
</tr>
<tr>
<td>Expeditors</td>
<td>UPS</td>
<td>St-Anda</td>
</tr>
<tr>
<td>FedEx</td>
<td>China Post</td>
<td></td>
</tr>
<tr>
<td></td>
<td>China Resources</td>
<td></td>
</tr>
</tbody>
</table>

Sources: Boston Logistics Group, China Warehousing Association, China Logistics Market Demand and Supply Analysis Report.
Distribution of Savings

- Wide range of savings
- Little correlation by industry or commodity

Distribution of Savings from LCCS
Investment in LCCS

- Few are investing in LCCS
- However, 2.3x investment for those sourcing 20% or more from LCCS today

<table>
<thead>
<tr>
<th>Percent of Respondents</th>
<th>Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>66%</td>
<td>0-1x</td>
</tr>
<tr>
<td>20%</td>
<td>1-2x</td>
</tr>
<tr>
<td>11%</td>
<td>3-5x</td>
</tr>
<tr>
<td>0%</td>
<td>6-10x</td>
</tr>
<tr>
<td>4%</td>
<td>&gt;10x</td>
</tr>
</tbody>
</table>
LCCS in 5 Years (2011)

- 14% more spend going to LCCS by 2011
- Few companies “half-pregnant”

Incremental Percent of Spend in Low-Cost Countries in 2011
China, China, China

Percent of Respondents Identifying the Country as Most Attractive

- China: 50%
- India: 20%
- Vietnam: 10%
- Indonesia: 5%
- Korea: 5%
- Mexico: 5%
- Taiwan: 5%
- Other: 10%
Industry in China, by Region

- Northeast
  - Beijing
  - Qingdao
  - Dalian
  - Tianjin
- Central
  - Shanghai
  - Nanjing
  - Suzhou
  - Hangzhou
- South
  - Guangzhou
  - Shenzhen
  - Hong Kong
Largest Challenges

1. Developing a global sourcing process and staff
2. Managing the communication, culture, or geographic knowledge gap
3. Ensuring product or service quality
4. Maintaining visibility and control over logistics and inventory
Largest Risks

1. Late or no delivery
2. Loss of intellectual property
3. Supplier failure to meet agreed standards
4. Unfavorable economic or currency shifts
Implications
Ask the Right Questions

Supply Market Outlook
- Capacity (Utilization)
- Leadtime (Availability)
- Costs (Prices)
- Supplier concentration

Sourcing Decisions
- Best suppliers
- Best contract term
- Right price
- Optimal supplier split

Analytical Logic

Ideal contract term?
Current price $10/unit, 3-year contract $8/unit
Demand projection = 100 units/year
Sales, profit margin, & supplier costs +/- 10% per year

Right price?
Year 1: +5%, Year 2: +3%, Year 3: -2%

Best supplier split?
Supplier A $9/unit, supplier B $11/unit
Both supplier’s availability = 97% + / - 2%
1-year testing period to test a new supplier’s products
1 Highlights

Demand: Mill roll demand will continue to grow through 2012, in step with robust capital investment in iron and steel production.
- Capital investments will grow at 10-12% per year from 2006-2012.
- Chinese demand will increase at an average of 10% per year over that period.
- Stainless steel and high-growth segments will fuel a demand for various specialized mills.

Supply: Suppliers are adding capacity, but the incremental capacity will not alleviate the current capacity shortage. Leadtimes will start to decline in 2007 for work rolls and 2009 for backup rolls.
- ESW, Steinhoff, Davy Roll, and others are adding plants or production capacity at existing plants.
- Chinese suppliers are coming onstream and more are expected over the next five years.
- Productivity improvements will be substantial, at 5% per year, with a compounding effect.

Figure 1: Key Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2006-2008</th>
<th>2008-2010</th>
<th>2010-2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order Leadtime</td>
<td>▲ 8.2%</td>
<td>▼ -17.0%</td>
<td>▼ -62.6%</td>
</tr>
<tr>
<td>Prices</td>
<td>▼ -4.8%</td>
<td>▲ 2.8%</td>
<td>▲ 2.3%</td>
</tr>
<tr>
<td>Capacity Utilization</td>
<td>▼ -4.2%</td>
<td>▼ -12.5%</td>
<td>▼ -13.1%</td>
</tr>
<tr>
<td>Supplier Concentration</td>
<td>Low 0.3%</td>
<td>Low -0.2%</td>
<td>Med 3.7%</td>
</tr>
</tbody>
</table>

Figure 2: Top Suppliers and Market Shares
Manage Innovation

- Don’t sacrifice the innovation engine for low cost!

- Establish a supplier split that optimizes the risk-reward trade-off.
Leverage Connections

- Use partnerships, mergers, and acquisitions to address the whole supply chain.
- Master the relationship building ("guanxi") before contracting.
Build the Capability You Need

- Identify and qualify suppliers
  - Screen
  - Qualify
  - Check
- Develop latent capabilities
  - Train
  - Build
  - Educate
Protect Your Interests

• Don’t assume that the written word is the definitive authority.

• Build intellectual property protection into the business process.
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