Suggested Reference


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The Geography of Operations in China

Location in China:
Why are some Industries so effective?

- Wu et al (2006) argue it is not so much low labour costs, but supply clusters - “geographically proximate groups of interconnected companies and associated institutions in a particular field, including end-product manufacturers, component suppliers, and supporting firms”
- Benefits:
  - More efficient (e.g., sourcing, inbound transportation, inventory)
  - More effective (e.g., in marketing cooperation and competition)
  - More flexible (e.g., pooling uncertain demand)

Chongqing

- **HP**
- **Acer**
- **Asus**
- Around 60 million laptops in 2012 (around 20% of the world’s total)
- **Rail Connection To Europe**

Government Finances

Outline

**Location**
- Clusters
- Local Government

**Logistics**
- Freight Costs
- Infrastructure

**Inventories**
- Historical Trends
- Association with Geography

Yangtze River Delta Clusters

Location:

Chongqing

100km

Chongqing

- HP
- Acer
- Asus
- Around 60 million laptops in 2012 (around 20% of the world’s total)
- Rail Connection To Europe

Government Finances

Source: adapted from National Bureau of Statistics

Note that transfer payments and tax rebates from central to local governments are excluded. In 2010 these amounted to 2.23 trillion RMB (or 8.1% of GDP).
### Logistics Costs: China & the U.S.

<table>
<thead>
<tr>
<th>Year</th>
<th>China</th>
<th>U.S.</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>18%</td>
<td>8.5%</td>
<td>China Federation of Logistics and Purchasing (2012) and 22nd Annual State of Logistics Report, CSCMP (2013)</td>
</tr>
<tr>
<td>2005</td>
<td>25-30%</td>
<td>5-7%</td>
<td>China Insights (Benesch, Friedlander, Coplan &amp; Aronoff LLP, 2005)</td>
</tr>
<tr>
<td>2001</td>
<td>30-40%</td>
<td>5-20%</td>
<td>China Insights (Benesch, Friedlander, Coplan &amp; Aronoff LLP, 2005)</td>
</tr>
</tbody>
</table>

### Freight Traffic


<table>
<thead>
<tr>
<th>Units</th>
<th>ROAD</th>
<th>RAIL</th>
<th>WATER</th>
<th>AIR</th>
</tr>
</thead>
<tbody>
<tr>
<td>freight</td>
<td>10bn km</td>
<td>21.2bn</td>
<td>3.3bn</td>
<td>3.1bn</td>
</tr>
<tr>
<td>freight tonne-km</td>
<td>3.7bn</td>
<td>2.5bn</td>
<td>5.7bn</td>
<td>13bn</td>
</tr>
<tr>
<td>Average transport distance</td>
<td>175 km</td>
<td>757 km</td>
<td>1,804 km</td>
<td>2,833 km</td>
</tr>
</tbody>
</table>

Note: Tolls represent 30-40% of logistics firms' costs (Gao, 2011) (vehicles also represent 2% of GDP, highest in the world)

### Average Freight Distance: China

![Average Freight Distance Graph]

### A “typical” Chinese Manufacturer

(adapted from Li et al., 2010)

### Infrastructure: sustained growth

38% of the 4 trillion RMB 2008-2010 stimulus plan was spent on public infrastructure (railways, roads, airports, and irrigation)

National Trunk Highway system (July 2010) “9+18” Network completion expected by 2020

### Inventory: China & the U.S.

(Robb, et al., 2012)

<table>
<thead>
<tr>
<th></th>
<th>China</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td>% of GDP</td>
<td>% of GDP</td>
</tr>
<tr>
<td>Inventories</td>
<td>2009</td>
<td>10.5%</td>
</tr>
<tr>
<td>Manufacturing Inventories (China: includes firms &gt; 5 million RMB annual revenue)</td>
<td>2007</td>
<td>4.3%</td>
</tr>
<tr>
<td>Manufacturing Inventories (China: excludes firms &gt; 5 million RMB annual revenue)</td>
<td>2007</td>
<td>4%</td>
</tr>
</tbody>
</table>

T = trillion RMB
Conclusion

- Geographical considerations should play a key role in operating decisions in China including location decisions, and inventory requirements.