The importance of measuring manufacturing logistics performance

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1. Why care about logistics?
2. Why is it important to measure logistics performance?
3. What is the WB’s Logistics Performance Index?
4. The LPI’s role in policy dialogue
5. ASEAN LPI Results
6. Initial results for Cambodia
7. Next steps for Cambodia…
1. Why care about logistics?

- Logistics is recognized as a key opportunity to improve profitability and firms’ competitive performance.
- It is important for firms to be able to assess their logistics performance as a starting reference.
- Obtaining industrial sector logistics performance is necessary for country to improve overall logistics capability.
- Logistics costs increase with decreasing logistics performance. Most of this increase comes from lower reliability and the need to increase inventory (“other costs”).
• Logistics Cost/GDP is an aggregate indicator based on national accounts and cannot reflect sector specific details
• Logistics Cost/Sales is more precise and enable comparisons within industrial sectors
• Countries using logistics cost/sales are Japan, Finland, Germany, etc.
• Thailand is using both logistics cost/GDP and logistics cost/sales for industrial firms and specific agricultural produce
• Logistics cost should not be the sole performance indicator.
2. Why is it important to measure logistics performance?

- Most firms do not comprehensively measure logistics performance,
- Even the best performing firms fail to realize their productivity and service potential available from logistics performance measurement, and;
- Logistics competency will increasingly be viewed as a competitive differentiator and a key strategic resource for the firm.
3. What is the WB LPI?

6 LPI dimensions along a supply chain framework

- Timeliness
- Ease of arranging shipments
- Tracking and Tracing
- Customs
- Infrastructure
- Services Quality

Point of Origin
Seller’s Factory

Exporting Country

Alongside Vessel

Delivery to Dock

Unloaded on Dock

Frontier/Border

Delivered to Buyer’s Warehouse

Importing Country
3. LPI outline

- Published every 2 years
- Built on >5,000 country assessments by > 1,000 logistics professionals
- Respondents rate logistics performance of own country and 8 other countries on a scale of 1 to 5
- Coverage: over 160 countries in LPI 2016
4. What is the role of the LPI?

The LPI

• Is an overall metric of supply chain efficiency.
• Provides information of where a country stands and a broad indication of problem areas.
• Is not a diagnostic tool and needs to be supported by specific tools designed to perform that function.

The LPI has had a significant impact in raising awareness and pushing for comprehensive “connectivity” and logistics policies, e.g. in Kazakhstan, APEC and ASEAN.
4. Policies matter to Logistics Performance

- **Infrastructure**
  - Ports
  - Road/rail corridors
  - Airports

- **Procedures and Trade Facilitation**
  - Customs & payments
  - Simplification & automation
  - Harmonization & standardization

- **Services**
  - Forwarders, truckers, brokers etc.
  - Regulation of entry
  - Market structure and competition

- **Sustainable Logistics**
  - ‘Green Logistics’
  - City Logistics

Regulations (customs, services) are increasingly regional, but implementation is national.
## 5. ASEAN LPI 2014 Ranking

<table>
<thead>
<tr>
<th>Typology</th>
<th>LPI Score</th>
<th>ASEAN countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>logistics friendly</td>
<td>3.50 - 5.00</td>
<td>Singapore, Malaysia</td>
</tr>
<tr>
<td>consistent performers</td>
<td>2.95 - 3.49</td>
<td>Thailand, Philippines, Vietnam, Indonesia</td>
</tr>
<tr>
<td>partial performers</td>
<td>2.40 - 2.94</td>
<td>Cambodia</td>
</tr>
<tr>
<td>logistics unfriendly</td>
<td>0.00 - 2.39</td>
<td>Laos, Myanmar</td>
</tr>
</tbody>
</table>
## 5. ASEAN LPI 2016 Ranking

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<td>Thailand</td>
</tr>
<tr>
<td>partial performers</td>
<td>2.40 - 2.98</td>
<td>Indonesia, Vietnam, Brunei, Philippines, Cambodia, Myanmar</td>
</tr>
<tr>
<td>logistics unfriendly</td>
<td>0.00 - 2.39</td>
<td>Lao PDR</td>
</tr>
</tbody>
</table>
6. Cambodia’s initial results

<table>
<thead>
<tr>
<th>Cost/sales</th>
<th>Cambodia</th>
<th>Thailand</th>
<th>Vietnam</th>
<th>Indonesia</th>
<th>Philippines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport</td>
<td>9.58%</td>
<td>5.57%</td>
<td>7.04%</td>
<td>8.81%</td>
<td>10.71%</td>
</tr>
<tr>
<td>Warehouse</td>
<td>3.69%</td>
<td>2.49%</td>
<td>3.78%</td>
<td>3.45%</td>
<td>5.20%</td>
</tr>
<tr>
<td>Inventory</td>
<td>6.18%</td>
<td>2.04%</td>
<td>4%</td>
<td>7.19%</td>
<td>8.78%</td>
</tr>
<tr>
<td>Administration</td>
<td>1.95%</td>
<td>1.01%</td>
<td>1.48%</td>
<td>1.95%</td>
<td>2.47%</td>
</tr>
<tr>
<td>Total Logistics</td>
<td>21.40%</td>
<td>11.11%</td>
<td>16.3%</td>
<td>21.40%</td>
<td>27.16%</td>
</tr>
</tbody>
</table>

Please do not quote the data in this presentation
### 6. Comparative Logistics Cost/Sales by Sector

<table>
<thead>
<tr>
<th>Logistics Cost/Sales</th>
<th>Cambodia</th>
<th>Philippines</th>
<th>Vietnam</th>
<th>Indonesia</th>
<th>Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive</td>
<td>15.83%</td>
<td>23.08%</td>
<td>33.55%</td>
<td>16.84%</td>
<td>14.75%</td>
</tr>
<tr>
<td>Chemical products</td>
<td>16.50%</td>
<td>43.30%</td>
<td>27.14%</td>
<td>27.01%</td>
<td>10.09%</td>
</tr>
<tr>
<td>Construction materials</td>
<td>NA</td>
<td>16.44%</td>
<td>28.60%</td>
<td>35.13%</td>
<td>10.46%</td>
</tr>
<tr>
<td>Electronics</td>
<td>NA</td>
<td>13.57%</td>
<td>4.40%</td>
<td>34.43%</td>
<td>12.14%</td>
</tr>
<tr>
<td>Food</td>
<td>21.30%</td>
<td>32.72%</td>
<td>17.60%</td>
<td>20.97%</td>
<td>10.32%</td>
</tr>
<tr>
<td>Furniture &amp; Decors</td>
<td>NA</td>
<td>18.07%</td>
<td>NA</td>
<td>45.32%</td>
<td>11.44%</td>
</tr>
<tr>
<td>Jewelry</td>
<td>18.70%</td>
<td>16.87%</td>
<td>NA</td>
<td>20.47%</td>
<td>NA</td>
</tr>
<tr>
<td>Textile &amp; Garments</td>
<td>14.14%</td>
<td>20.35%</td>
<td>14.30%</td>
<td>16.01%</td>
<td>8.55%</td>
</tr>
</tbody>
</table>

*Please do not quote the data in this presentation*
6. Cambodia Logistics Performance issues

- Reliability is the most important logistics performance dimension
- The symptoms of low reliability is high logistics cost
- Manufacturers consider that reliability of the logistics system in Cambodia need to be improved

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## 6. Cambodia vs other ASEAN countries

<table>
<thead>
<tr>
<th>KPI</th>
<th>Cambodia</th>
<th>Vietnam</th>
<th>Philippines</th>
<th>Indonesia</th>
<th>Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery In Full On Time</td>
<td>83.78%</td>
<td>90.99%</td>
<td>89.62%</td>
<td>81.92%</td>
<td>87.84%</td>
</tr>
<tr>
<td>Damage rate</td>
<td>3.84%</td>
<td>2.18%</td>
<td>3.70%</td>
<td>2.01%</td>
<td>4.16%</td>
</tr>
<tr>
<td>Cash Conversion Cycle (days)</td>
<td>7.79</td>
<td>20.29</td>
<td>21.77</td>
<td>19.00</td>
<td>NA</td>
</tr>
<tr>
<td>Customer Complaint Rate</td>
<td>6.33%</td>
<td>6.65%</td>
<td>5.97%</td>
<td>6.61%</td>
<td>2.64%</td>
</tr>
<tr>
<td>Forecasts Accuracy</td>
<td>80.34%</td>
<td>75.53%</td>
<td>80.15%</td>
<td>81.68%</td>
<td>84.40%</td>
</tr>
<tr>
<td>Ratio of Returns</td>
<td>4.19%</td>
<td>2.26%</td>
<td>5.15%</td>
<td>3.55%</td>
<td>3.58%</td>
</tr>
</tbody>
</table>
Logistics outsourcing in Cambodia

- Most outsourced activities are:
  - Domestic transport
  - International transport
  - Customs brokerage

- Most in-house activities are:
  - Warehouse
  - Inventory management
  - Logistics IT system
  - Value-added services

<table>
<thead>
<tr>
<th></th>
<th>In-house</th>
<th>Outsource</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>51%</td>
<td>49%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>32%</td>
<td>68%</td>
</tr>
<tr>
<td>Philippines</td>
<td>51%</td>
<td>49%</td>
</tr>
</tbody>
</table>

Please do not quote the data in this presentation
Logistics Service Level Agreements (SLAs)

- It is interesting to note that not all providers are under SLAs.
- More than 1/4 of outsourcing is done with no SLAs.
- Only 1/5 respondents have SLAs with ALL their service providers.

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### Comparative manufacturing logistics costs/sales

<table>
<thead>
<tr>
<th>Country</th>
<th>Logistics Cost/Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vietnam</td>
<td>16.3%</td>
</tr>
<tr>
<td>Thailand</td>
<td>11.11%</td>
</tr>
<tr>
<td>Estonia</td>
<td>16%</td>
</tr>
<tr>
<td><strong>Cambodia</strong></td>
<td><strong>21.40%</strong></td>
</tr>
<tr>
<td>Finland</td>
<td>12.1%</td>
</tr>
<tr>
<td>Germany</td>
<td>9%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>21.48%</td>
</tr>
<tr>
<td>Philippines</td>
<td>27.16%</td>
</tr>
</tbody>
</table>

*Source: TU Berlin; Turku Finland; Thammasat Thailand; FTU Hanoi; WB Indonesia; IFC Philippines*
Some initial thoughts….

- Logistics cost/sales in Cambodia is equivalent to Indonesia (21.40%)
- Reliability is key logistics performance dimension and negatively impacts logistics cost in the country
- Limited understanding of the importance of logistics
- Logistics is considered more operational than strategic
- On the job training reflect lack of formalized logistics know-how

*Please do not quote the data in this presentation*
Summary

- Baseline logistics performance assessment is critical
- WB’s LPI is an external perceptual assessment
- Important to develop own LPI to guide national logistics policy
- Benchmarking with neighbouring countries will enable enhanced development within the ASEAN Economic Community (AEC)
Next steps for Cambodia…

• What is the current situation for industrial logistics in Cambodia?
• What is the current logistics capability of manufacturers in Cambodia?
• What are the issues related to logistics in Cambodia?
  • Service levels?
  • Institutional environment?
  • Infrastructure?
• What should/can the RGC do?