Slow steaming from shippers perspective

Christian Finnsgård and Joakim Kalantari, SSPA Sweden AB
Violeta Roso, Chalmers University of Technology
Johan Woxenius, Gothenburg University

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Purpose

The purpose of this paper is to explore the effects of slow steaming on the shippers.

The purpose of the study is to explore and explain the shippers’ ability to manage the consequences of slow steaming in their supply chains.
Slow Steaming Logistics - background

Shanghai - Rotterdam

- 24 knots
- 21 knots
- 18 knots
- 15 knots

17kn = 600$ TEU
19kn = 800$ TEU
Background

• Why: flaccid demand, abundance of capacity, high fuel prices and low freight rates.

• Despite the negative abatement costs and potential of slow steaming as a measure for reduction of greenhouse gases and other hazardous emissions, its use will likely decline as soon as the market conditions rebound.
Benefits of slow steaming

• Improves vessel *fuel efficiency*
• Lower levels of GHG *emissions*
• Enables carriers to absorb excess *fleet capacity*
• Schedule *timeliness*
Technical/logistical trade-offs of slow steaming

- Longer sailing times
- Lower bunker consumption per unit
- Lower utilisation of ship-capacity
  - Increased costs of capital and personnel
  - Less capacity available
- Negative abatement costs
- Increased reliability
Methodology

• Literature
  – Technical, maritime, logistics, supply chain management and production logistics

• Case company selection

• Interviews with six case companies, representing a diverse mix of companies all utilizing trans-ocean shipping in their supply chains

• A major workshop with all case companies validating the findings
The increased sailing times are noticed by the shippers.

The sailing time is tracked by some shippers, others rely on reports by 3PL suppliers such as DHL and Schenker on this information.

The perceived performance in not worse now than in 2008 (before slow steaming).

The shippers cannot affect the sailing times.

For a majority of the shippers, reliability is more important than speed/lead time.
Results from the interviews – what the shippers prefer

• A diversity in the offering regarding the sailing time is desired by the shippers
• All shippers wanted to be able to select the sailing time
• Some requested shorter sailing time
• Some requested lower cost
• Only one actively requested lower environmental impact
• Reliability was important to all – even if it increased costs
## Analysis

<table>
<thead>
<tr>
<th>Slow steaming effects</th>
<th>Literature</th>
<th>Interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Longer transit times</td>
<td>x</td>
<td>x (all)</td>
</tr>
<tr>
<td>Cost benefits</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Increased pipeline inventory</td>
<td>x</td>
<td>x (1)</td>
</tr>
<tr>
<td>Increasing safety stock needs</td>
<td>x</td>
<td>x (3)</td>
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<tr>
<td>Reliability</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Environmental benefits</td>
<td>x</td>
<td>x(2)</td>
</tr>
<tr>
<td>Challenges with perishable and short lifecycle products</td>
<td>x</td>
<td>x(1)</td>
</tr>
<tr>
<td>Extension of the forecast horizon</td>
<td>x</td>
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</tbody>
</table>
Concluding remarks

The trade-off between price and speed was uniformly considered unfavourable in the case companies!

None of the companies in this study recognised slow steaming as an explicit measure for lower environmental effect!

How do shippers’ manage the consequences of increased lead time in their supply chains?