Supply chain synergies: a look at comparative advantage across supply chain stages

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Sustainability in Food Value Chains – Australian and European Perspectives

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Sustainability in Australian food supply chains, Australia c.f. Europe

Context
- Export
- "Productivist" (Dibden et al., 2009)
- Dispersed
- Concentrated
- Scale
- Transition: quality; differentiation; corporatisation; privately funded
- Poorly defined, anywhere (Yakovlev et al., 2012; Hassini et al., 2012)

Practices
- Related to resilience
- Sustainability performance or performance sustainability?

Measurement
- Efficiency
- Chain policy (Griffith et al., 2013)

Implications
- What can be said about Australia’s FSCs’ predisposition to sustainability?
- Can we make comparisons to European FSCs?
On trade: the two cost-based “unbundlings” of globalisation:

1. Reduction in shipping costs (1870s)
2. Reduction in communication costs (1990s)

Source: Baldwin (2011)
Regional clusters:

1\textsuperscript{st} unbundling $\Rightarrow$ local but national

2\textsuperscript{nd} unbundling $\Rightarrow$ regional but close by

$\Rightarrow$ cross-border M&E

\begin{tabular}{ll}
\textsuperscript{Source: OECD (2015)}
\end{tabular}
Preferential Trade Agreements

Source: WTO (2011)

AUSTRALIA'S TOP 10 GOODS & SERVICES EXPORTS, 2016 (a)

(DFAT, 2017)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Commodity</th>
<th>Value (A$ million)</th>
<th>% share</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Iron ores &amp; concentrates</td>
<td>53,703</td>
<td>16.3</td>
</tr>
<tr>
<td>2</td>
<td>Coal</td>
<td>42,328</td>
<td>12.8</td>
</tr>
<tr>
<td>3</td>
<td>Education-related travel services (d)</td>
<td>21,986</td>
<td>6.7</td>
</tr>
<tr>
<td>4</td>
<td>Gold</td>
<td>18,857</td>
<td>5.7</td>
</tr>
<tr>
<td>5</td>
<td>Natural gas</td>
<td>17,911</td>
<td>5.4</td>
</tr>
<tr>
<td>6</td>
<td>Personal travel (excl education) services</td>
<td>17,412</td>
<td>5.3</td>
</tr>
<tr>
<td>7</td>
<td>Beef f.o.r.</td>
<td>7,401</td>
<td>2.2</td>
</tr>
<tr>
<td>8</td>
<td>Aluminium ores &amp; conc (incl alumina)</td>
<td>6,456</td>
<td>2.0</td>
</tr>
<tr>
<td>9</td>
<td>Wheat</td>
<td>4,853</td>
<td>1.5</td>
</tr>
<tr>
<td>10</td>
<td>Professional services</td>
<td>4,782</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Suited to SC trade

Composition of Australian exports

(DFAT, 2016)

Destination of Australian exports

(DFAT, 2016)
Australian agriculture and food

**State of nature**
- Largely unsubsidised
- Strongly export-oriented
- Agr exports probably not re-exported
- Neoliberal policy settings

**Trends**
- New Technologies
- Market incentive-driven
- Extreme market concentration
- International neoliberal agenda
- Industry-funded research
- Attention to domestic market

“Productivism” (Lawrence et al., 2013)
Measurement of sustainability: a construct (Yakovleva et al., 2012)

Contradicted by productivism? Precluded by international trade configuration?

What about performance sustainability?
<table>
<thead>
<tr>
<th>SSCM Practices</th>
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<tbody>
<tr>
<td><strong>Orientation</strong></td>
</tr>
<tr>
<td>Supply chain management</td>
</tr>
<tr>
<td>Triple bottom line</td>
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<tr>
<td><strong>Supply chain continuity</strong></td>
</tr>
<tr>
<td>Long-term relationships</td>
</tr>
<tr>
<td>Partner development</td>
</tr>
<tr>
<td>Partner selection</td>
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<tr>
<td><strong>Collaboration</strong></td>
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<tr>
<td>Joint development</td>
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<tr>
<td>Technical integration</td>
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<tr>
<td>Logistical integration</td>
</tr>
<tr>
<td>Enhanced communication</td>
</tr>
<tr>
<td><strong>Risk management</strong></td>
</tr>
<tr>
<td>Individual monitoring</td>
</tr>
<tr>
<td>Pressure group management</td>
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<tr>
<td>Standards and certification</td>
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<tr>
<td><strong>Pro-activity</strong></td>
</tr>
<tr>
<td>Learning</td>
</tr>
<tr>
<td>Stakeholder management</td>
</tr>
<tr>
<td>Innovation</td>
</tr>
<tr>
<td>Life cycle assessment</td>
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Enabled by productivism?
<table>
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<tr>
<th>Meaning of food in SFSCs</th>
<th>Meaning of production-distribution system in SFSCs</th>
</tr>
</thead>
</table>

Galli and Brunori (2013)
Supply chain configuration

Long food supply chains
• Favour export competitiveness
• Make best use of local resources
• Favour scale
• Suit logistics
• Provide year-around supply
• Low consumer prices
• Quality guarantees

Short food supply chains
• Intuitive association with environmental care, community
• Provision of certain credence quality attributes
• Resilience via lack of tech and infr. reliance; networks; social capital
• Elements of food security

(Galli et al., 2015)
(Smith et al., 2016)
Possible roles of “two models” of supply chain configuration

Tesco stocking local products in UK; efforts in Australia rare, at small scale
(Pearson and Bailey, 2009)

Market access and logistics occasioned by reliance on Long Chains (Bloom and Hinrichs, 2010)

Sponsorship and support in Australia from large scale agriculture:
• New niche and small scale products and services (focus in technology)
• Entrepreneurship
  • Federal: Export generation (e.g. ATMAC funds)
  • State: Job creation (e.g. NSW Ag Tech Cluster)
  • Industry: directed/culture change (e.g. SproutX)
Leading (following?) comments

- Australia’s agr export orientation may not be in supply chain trade
- Australia’s food SC structure is in step with market and policy incentives, with “chain good” corrections
- Sustainability measures and Australian food SCs:
  - EITHER rate it badly OR are unsuitable
- Presence of sustainability-boosting practices in Australian food SCs
  - EITHER rate it well OR are unsuitable
- Australian SFSC mimic competitive behaviour of LFSC

- Resilience is reduced by SC elements of productivism
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Galli, F. and G. Brunori (2013) “Short Food Supply Chains as Drivers of Sustainable Development. Evidence Document; Document developed in the framework of the FP7 project FOODLINKS (GA No. 265287); Laboratorio di studi rurali Sismondi: Pisa, Italy.


Pearson, D. and A. Bailey (2009) Business opportunities in local food supply chains: an investigation in England and Australia” Presentation at the 83rd Annual Conference of the Agricultural Economics Society, Dublin, 30th March to 1st April 2009


UN Human Development Report (2013)


