Economics of the Red Meat Industry
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- Australian Beef Production 1973-2013
- Australian Supply & Use of Lamb Meat

Source: ABARES Livestock & Meat 7218.0.55.001
Source: ABARES 2012 table 157
www.fastfarmfacts.wordpress.com
www.cattleproducer.wordpress.com
Whose economics is it?
It must be everyone’s

• World food, beverage and fibre markets now dominated by networks of global **value chains**.

• These are private, powerful, closely coordinated or fully vertically integrated, self-regulated and experience-based (Griffith et al. 2015).

• So value chains are the new unit of enquiry for describing and analysing food, beverage and fibre markets (Baker et al. 2014).
**Value chains**

- “Value”: the amount buyers are willing to pay for what a firm provides.
- “Value chain”: the combination of value-adding activities operating within a firm – activities that combine to provide value to customers.
- “Networks”: linked value chains.
- Contain product flows, information flows and value flows.
- Another definition is that value chains “create, capture and transmit” value.
What is a Value Chain?

Moving food with value and values
Red meat consumers

• The value part therefore comes from the value to the final consumer.

• We often talk about the typical consumer who on average
  – consumes so many kgs of red meat per year,
  – pays so many $/kg for rump steak or lamb chops or mince, etc.,
  – Responds in a given way to changes in prices of red meats and competing products, income, perhaps advertising, etc. (elasticities of demand).

• We use diagrams like the following to explain the economics of consumer demand.
The equilibrium of supply and demand

Equilibrium quantity

Equilibrium price

Supply

Demand

Equilibrium
But consumers are not all the same

Morales (2010)
The drivers of value chain performance

Chopra and Meindl (2012)
The concept of competitive strategy

• Value chains have to choose which set of consumer demands/needs/priorities they are attempting to satisfy.
• This choice is the foundation of the competitive strategy of the value chain.
The concept of strategic fit

• Strategic fit is “the nature of the link between the customer priorities that the competitive strategy of a value chain hopes to satisfy, and the capabilities that are available in the value chain to implement that objective.” (Chopra and Meindl 2012).

• Trade-off between value chains that focus on being responsive to customer needs and those that focus on supplying at the lowest possible cost.

• If demand uncertainty is low, a low cost value chain is the best strategic fit; conversely if demand uncertainty is high, a responsive value chain is the best fit.
How do you choose?

- **Price sensitive consumer**
  - More of them
  - Always a market – demand uncertainty lower
  - Minimal assurance standards
  - Little scope for rewards for quality
  - Best strategic fit is **low cost supply**
How do you choose?

• Quality sensitive consumer
  – Fewer of them
  – More risk – demand uncertainty higher
  – More exact assurance standards – higher cost
  – Greater scope for rewards for quality
  – Best strategic fit is **responsive to consumer needs**
The concept of strategic fit

Isorevenue curve

Output of low-cost channel
The drivers of value chain performance

Chopra and Meindl (2012)
How to improve responsiveness - example of Meat Standards Australia

• A grading scheme to guarantee tenderness (for the right cut cooked the right way).
• Measured willingness to pay by consumers.
• Measured additional value created and transmitted through the whole value chain.
• Therefore, a measured premium for responsiveness.
Figure 2: Average Distribution of the MSA Retail Premium, 2004/05-2010/11

Griffith and Thompson (2012)
Figure 3: Variability of MSA Premiums Over Time, 2004/05-2010/11

Griffith and Thompson (2012)
Strategic fit with MSA

A value chain would operate at point C to maximize chain profit.

Isorevenue curve

Output of responsive channel

Output of low-cost channel
What can we do better?

1. Make the most of the MSA model

   • Most beef is sold as graded or not graded (eg Woolworths).
   • However it is well known that Australian consumers have higher WTP for MSA 4* and MSA 5*.
   • Examples of niche markets which have capitalised on this (Rod Polkinghorne in Melbourne, Richard Gunner in Adelaide).
Figure 1. Willingness to pay (expressed as a ratio to 3 star grade) for Australian, Japanese, the United States and Irish consumers, adjusted for demographic and meat consumption preferences.
Table 4. Mean, standard deviation and range for lamb WTP values by MSA grade expressed in AU$/kg (n=5843)

<table>
<thead>
<tr>
<th>MSA grade</th>
<th>WTP (AU$/kg)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. deviation</td>
<td>Range</td>
<td></td>
</tr>
<tr>
<td>2-star</td>
<td>7.78</td>
<td>4.82</td>
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<tr>
<td>3-star</td>
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<td>4-star</td>
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<td>8.22</td>
<td>1-70</td>
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<tr>
<td>5-star</td>
<td>29.70</td>
<td>11.06</td>
<td>1-80</td>
<td></td>
</tr>
</tbody>
</table>
What can we do better?

2. Enhance the traceability of the retail product

- Use new IT technologies to track red meat from live animal to retail portion.
- Why not a predictive sorting system that provides real-time information on the kill floor allowing carcasses and then primals to be sorted based on individual customer needs?
- Examples of the Dutch and Danish pig meat processing systems.
What can we do better?

3. Provide effective feedback

• Effective value chains contain product flows, information flows and value flows.
• We now do a good job on some quality attributes, but what about saleable meat yield?
• Use new IT and scanning technologies to develop component pricing models that can inform breeding and management decisions.
• Examples of dairy and pig meat pricing systems.
Conclusion

• The economics of the red meat industry means the economics of satisfying consumer requirements within a value chain context.

• Value chains choose to be low cost or responsive, or some combination, depending on the type of consumer they target.

• There have been large improvements in recent years in some components, but more can be done to increase the value available to everyone by applying value chain principles.

• This requires whole-of-chain coordination and investment.

Thank you for your attention