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Diamond/Diamant

Canada 

Platinum/Platine



Gold/Or

Manitoba 

 Ontario



Silver/Argent

Alberta

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ManitobaPork

CANADIAN
Cattlemen
THE • BEEF • MAGAZINE

Bronze/Bronze

Alberta Farmer Express
Canadian Poultry Magazine
Canadian Wheat Board /
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Traceability & Quality Assurance: Who Do Consumers Trust?

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Outline

- What is 'traceability'?
- The roles of a traceability system
- Recent consumer research
- Who do consumers trust?
- Building credible quality claims



Drivers for change

- Food safety
- Food quality
- Consumer interest in the health, environmental, ethical consequences of food choices
 - e.g. environmentally sustainable, pesticide-free, 'natural', animal welfare, source . . .
- Quality assurances & certification
- Traceability



'Hidden' quality

- 'Credence attributes'
- The consumer's problem:
 - How do I **KNOW** that this product is 'environmentally friendly'?
 - How do I **KNOW** that this product is Canadian?
- **Solution?**
 - Labelling and/or certification



What is “Traceability”?

- No universally accepted common definition
- Diverse set of roles for traceability systems: from simple traceback to quality verification
- “Identification” Vs “traceability” Vs “verification”
- Tracking (forwards) Vs tracing (backwards)
- Breadth, depth & precision (Golan et al)



Roles of a Traceability System

1. Risk Management
2. Production and supply chain management
3. Enhancing value-added: quality verification



Roles of a Traceability System

1) Risk Management:

- allows traceback in the event of a food safety problem
- enables scope of food safety problems to be managed
- enables firms to manage food recalls more efficiently
- strengthens liability incentives for food safety
- reduces risks to public health



Roles of a Traceability System

2) Production and Supply Chain Management

- Animal/product ID information can be used to manage herd health, track production attributes, monitor inputs
- Improved logistics and inventory management e.g. retailers



Roles of a Traceability System

3) Quality Verification

- Labelling the presence of credence attributes
- Provide clearer price signals to producers
- Reduce information costs for consumers
- Lend credibility to quality assurances (trust)
- Traceability system as a 'rail track'?



Traceability & Consumer Trust

- Consumers will be increasingly intolerant of food safety failures
- Increased media attention to food safety
- Traceability does not guarantee food safety
- Consumers want to know food is safe *before* they eat it!
- Some evidence that traceability increases consumer **trust** in quality assurances (Hobbs et al, CJAЕ 2005)



Recent Consumer research

- Are quality claims credible?
- Who do consumers trust to verify quality?
- Is consumers' willingness to pay affected by who verifies the quality attribute?
- Consumer research (Brian Innes, M.Sc.)

Application:

Pesticide-free and environmentally sustainable claims



Recent Consumer research

- Examined role for private, third party & gov't actors in credible quality assurance
- Explored nature of trust in various organizations for quality assurance
- Internet survey-480 Canadians, June 2008
- Discrete choice experiment: pesticide-free and environmentally sustainable attributes in bread
- Evaluated several dimensions of trust



Trust

- Five verifying organizations:
Gov't; 3rd party; processor; farmer; supermarket
- For each one, to what extent
 - Are they **trusted** to provide accurate information about farming methods?
 - Are they seen to be **knowledgeable**?
 - Are they seen to be **transparent and accountable**?
 - Are they seen to be **acting in best interests of consumers**?

(Frewer et al., 2005)



Explaining Trust

- Trust in gov't, third parties & supermarkets likely to be most affected by whether they are considered **knowledgeable**
- Trust in farmers likely to be most affected by their perceived **transparency and accountability**
- Trust in food processors likely to be most affected by extent to which they are seen to **represent consumers' best interests**



Choice Experiment

- Survey respondents asked to choose between different loaves of **bread** containing:
 - Wheat that was produced using **environmentally sustainable** and/or **pesticide-free grains** verified by different organizations
 - **Five verifying organizations:** Government, Farmer, Third Party, Supermarket, or Bakery
 - **Four different prices**



Example of a choice set

Features	A	B	C	D
Organization verifying	Supermarket Verified	3 rd Party Verified	Bakery Verified	I would not purchase any of these products
Pesticide Free			✓	
Environmentally Sustainable	✓	✓		
Price	\$2.99	\$4.99	\$3.99	

Option A

Option B

Option C

Option D

I would choose...



Consumers Are Diverse!

	Relative WTP Estimates (\$/loaf) Latent Class Multinomial Logit				
	“Concerned Shopper”	“Independent Verification Seeker”	“Label Believer”	“Defer to Farmer”	“Not Interested”
Pesticide-free	10.26***	3.13***	2.27***	0.40***	-0.18***
Sustainable	6.34***	2.42***	1.45***	0.28**	0.07
Government	5.13***	4.30***	0.06***	-0.39***	0.08***
Farmer	0.85	-1.05***	-0.34	1.22***	0.40
Third Party	-3.80***	3.34***	0.18***	-0.48***	-0.12***
Supermarket	-3.55***	-4.27***	0.22***	-0.68***	0.04**
Bakery/ processor¹	1.37	-2.32	-0.12	0.34	-0.40
Propn of sample	0.220	0.120	0.352	0.123	0.186

¹as the estimate for bakery= -org1-org2-org3-org4, significance is not applicable.

*, **, *** denote significance at the 10 percent, 5 percent, and 1 percent level respectively for the attribute parameter in the WTP ratio

The Bottom Line?

- Consumers are diverse!
- About 18% not interested in these quality attributes
- About 35% trust food labels: verification not valued/necessary
- About 35% strongly value gov't quality verification. Tend to be those who will pay more



The Bottom Line?

- Mixed reaction to 3rd party verification:
→ likely depends on identity of third party
- Low valuation of retailer-driven verification systems. (Note: defined as a group)
- Third party & private sector certifiers have to work harder to establish trust & credibility
- But ... potential for differentiation through demonstrating knowledge, accountability and having consumer interests at heart



Conclusions

- Understand WHY a traceability system is being introduced:
- Risk management?
Supply chain management?
Quality verification?
- Can existing traceability systems facilitate credible quality assurances?





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