What are the issues regarding adoption of traceability systems in the Halal supply chain?

Delma Poniman

Supervisors: Professor Sharon Purchase & Associate Professor Joanne Sneddon

The Business School
The University of Western Australia
Acknowledgements

- Professor Sharon Purchase and Associate Professor Joanne Sneddon, The Business School, the University of Western Australia
- Ministry of Education, the Government of Malaysia
- Universiti Teknologi Malaysia, Malaysia
Halal Industry Review

- Facts and Figures on Halal food industry

- What is Halal?

- How do we know what is Halal and what is non-Halal (Haram)?

  - Four sources of guidelines in Halal and Haram food:
    - Quran
    - Hadiths
    - Sunnah
    - Fiqh – Shafi‘i, Hanafi, Hambali and Maliki

- Who is interested in Halal?
### Halal Industry Review

- **Facts and Figures on Halal food industry**

<table>
<thead>
<tr>
<th>Muslim Population (Million)</th>
<th>Prospected Halal Food Market Value (USD Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.26 million pop.</td>
<td>USD14,455 million</td>
</tr>
<tr>
<td>51.19 million pop.</td>
<td>USD63,988 million</td>
</tr>
<tr>
<td>1085.27 million pop.</td>
<td>USD386,686 million</td>
</tr>
<tr>
<td>1.64 million pop.</td>
<td>USD820 million</td>
</tr>
<tr>
<td>461.77 million pop.</td>
<td>USD115,443 million</td>
</tr>
</tbody>
</table>
Halal Industry Review

- Issues within Halal food supply chains

Inexistence of a unified Halal standard and logo.

‘Grey areas’ in ingredients due to modernization of food manufacturing process
Halal Industry Review

Global Halal Trade Centre Pty. Ltd.

The Islamic Council of Perth Western Australia
Traceability Review

- What is a traceability system?

Intake Data
- Raw Materials Data
- Process Data

Finished Goods Data
- Dispatch Data
- Customer Data

Examples of traceability in food industry.

Who is interested in traceability systems?
Research Focus

- Buyer-seller relationship
- Emergence of innovation (traceability system)
- Context: Halal Food Supply Chain
## Methodology

### Research Participants

<table>
<thead>
<tr>
<th>Organizations</th>
<th>Roles</th>
<th>Number of Interviewees</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Department of Health</td>
<td>Manager</td>
<td>1</td>
</tr>
<tr>
<td>2. Department of Agriculture WA</td>
<td>Director, Manager</td>
<td>2</td>
</tr>
<tr>
<td>3. Curtin University</td>
<td>Consultants</td>
<td>2</td>
</tr>
<tr>
<td>4. CSIRO</td>
<td>Research Scientists</td>
<td>1</td>
</tr>
<tr>
<td>5. AgResearch Limited</td>
<td>Senior Scientists</td>
<td>1</td>
</tr>
<tr>
<td>6. Islamic Association of Katanning</td>
<td>Shire and Certifier</td>
<td>1</td>
</tr>
<tr>
<td>7. Western Australia Halal Authority</td>
<td>Halal State Supervisor</td>
<td>1</td>
</tr>
<tr>
<td>8. Perth Mosque</td>
<td>Halal State Supervisor</td>
<td>1</td>
</tr>
<tr>
<td>9. Halal Saddiq Services</td>
<td>Certifier</td>
<td>1</td>
</tr>
<tr>
<td>10. Chamber of Commerce and Industry</td>
<td>Food Industry Advisor</td>
<td>1</td>
</tr>
</tbody>
</table>
Methodology (cont)

- Stages of data analysis:

  Stage 1
  • Importing data into Leximancer™ software

  Stage 2
  • Generating concept seeds

  Stage 3
  • Generating thesaurus

  Stage 4
  • Running project

  Stage 5
  • Generating concept map

  Stage 6
  • Connecting concepts to identify themes

  Stage 7
  • Matching between empirical data and literature

  Stage 8
  • Corroborating and legitimizing coded themes
Preliminary Findings

- Leximancer coding of concepts and themes
Preliminary Findings (cont)

- Analyses of Halal perceptions by tagged groups
Preliminary Findings (cont)

- Analyses of Halal perceptions by tagged groups (cont)

Halal idea logic from the organizational perspectives:

*Knowledge pathways:*

  Government Departments

- **Food** (contribution 0.38)
- **Halal** (contribution 0.62)

“My understanding of Halal is the method for food processing. Procedures are suitable for halal consumption, that’s it to me. Nothing serious there.”
Preliminary Findings (cont)

- Analyses of Halal perceptions by tagged groups (cont)

Halal idea logic from the organizational perspectives:

Knowledge pathways:
Independent Body

**Business** (contribution 0.18)

**Food** (contribution 0.62)

**Halal** (contribution 0.2)

“Well, I suppose I have a very crude understanding of it and ‘Halal’ to me is a food preparation process...that is acceptable under Islam rule.”
Preliminary Findings (cont)

- Analyses of Halal perceptions by tagged groups (cont)
Preliminary Findings (cont)

- Analyses of Halal perceptions by tagged groups (cont)

- Halal is the food that is suitable for consumption for Muslims under the Islamic law.

- The importance of Halal is perceived differently depending on the roles of the individuals but in accordance to the aims of the organizations.
Preliminary Findings (cont)

- Analyses of the perceived costs and benefits that a traceability system delivers to the Halal food processing industry.
Analyses of the perceived costs and benefits that a traceability system delivers to the Halal food processing industry

<table>
<thead>
<tr>
<th>Group Tag</th>
<th>‘Traceability’ concept ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government Department</td>
<td>3/30</td>
</tr>
<tr>
<td>Research Institutes</td>
<td>15/29</td>
</tr>
<tr>
<td>Independent Food Advisory Body</td>
<td>17/30</td>
</tr>
<tr>
<td>Certifiers</td>
<td>27/30</td>
</tr>
</tbody>
</table>
Preliminary Findings (cont)

- Analyses of the perceived costs and benefits that a traceability system delivers to the Halal food processing industry (cont)

- Benefits of traceability system:
  - Tool for inter-organization control
  
  ‘I think the first instance is always compliance… the better businesses actually understand Quality assurance system as being a good way of doing business. You understand where the ‘They’re not just they’re not just something to get you customers.’ ‘…they would have to be able to show some manufacturers are one that manufacture Halal products, they have to show what their resources -their ingredients that they got are suitable, that they control and they ensure their process and that then they label the product that was true to label …’
Preliminary Findings (cont)

- Analyses of the perceived costs and benefits that a traceability system delivers to the Halal food processing industry

<table>
<thead>
<tr>
<th>Group Tag</th>
<th>‘Traceability’ concept ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government Department</td>
<td>3/30</td>
</tr>
<tr>
<td>Research Institutes</td>
<td>15/29</td>
</tr>
<tr>
<td>Independent Food Advisory Body</td>
<td>17/30</td>
</tr>
<tr>
<td>Certifiers</td>
<td>27/30</td>
</tr>
</tbody>
</table>

‘And then we have the sticker system, it’s the traceability. Yeah we can trace by the stickers. Our condition is every carton in and out of the company must be Halal-stickered. So if the company manufactured small goods like Bolognese or something and they send it to the butcher shop, it must have a sticker on it. So when we go inspect the shop, we will trace which company do they use.’
Preliminary Findings (cont)

- Analyses of the perceived costs and benefits that a traceability system delivers to the Halal food processing industry (cont)

- Costs of traceability system:

  ‘No, it has, again this is the trust factor, so whoever the player is in the chain, the pivot point has to have enough assurity or assurance of the attributes of the product from each of those suppliers, so they may have no QA system or traceability systems, but because they’re close enough to the business, where they know that the attribute is entirely correct, then that’s something that they they’ll trust and therefore take on responsibility as they use that ingredients perhaps and take it through the chain that way. If their relationship would the business is a lot more distance, and less trustworthy then they will need some proof and evidence, and that’s where the QA system comes in, so depends on that sort of relationships of the clients through the channel.’
The success of traceability system in the halal food chain will be influenced by two things:

i) The organizations’ perspectives of Halal

ii) The perceived costs and benefits of implementing traceability systems

<table>
<thead>
<tr>
<th>Costs</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Misinterpretation of traceability system</td>
<td>1. Tool for inter-organizational control</td>
</tr>
<tr>
<td>2. Misalignment of true interpretation of traceability systems</td>
<td>2. Tool for market power</td>
</tr>
<tr>
<td>3. Supply-chain wide participation</td>
<td>3. Tool for branding and differentiation strategies</td>
</tr>
<tr>
<td>4. Power and relationship distance in the network</td>
<td>4. Provide transparency of information that increase consumers’ trust</td>
</tr>
</tbody>
</table>