Marketing Potential for a Locally-grown Oyster in Hawai‘i

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Motivation

- 85-90% food imported
- Need and opportunity to grow local
- Potential shellfish industry
- Price of imports < cost of local production
Research Questions

Questions:
• What can farmers charge for local oysters?
• Is this price sufficient to outweigh farming costs? (i.e. is a local oyster industry viable?)

Objective:
Elicit restaurant chefs’ willingness to pay (WTP) for locally-grown oysters in Hawai’i by investigating preferences for different shell stock oyster attributes
Select the most attractive option or “NONE” if you would not choose any of these.

<table>
<thead>
<tr>
<th>Freshness (2)</th>
<th>Origin (3)</th>
<th>Supply consistency (2)</th>
<th>Price (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frozen</td>
<td>Foreign</td>
<td>Supplied on a set schedule</td>
<td>$24/dozen</td>
</tr>
<tr>
<td>Fresh</td>
<td>Mainland</td>
<td>Supplied when available</td>
<td>$15/dozen</td>
</tr>
<tr>
<td>Frozen</td>
<td>Hawaii</td>
<td>Supplied on a set schedule</td>
<td>$21/dozen</td>
</tr>
<tr>
<td>Fresh</td>
<td>Foreign</td>
<td>Supplied when available</td>
<td>$18/dozen</td>
</tr>
</tbody>
</table>

- 4 profiles + “choose none” option
- 20 choice tasks
Mail survey:
• Sent to 135 Oahu restaurants that serve oysters
• 9 returned (6.7% response)
• Called remainder + neighbor islands
• 18 more collected

Current sample size: 27

Random parameter (mixed) logit model
## Results

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Set schedule</th>
<th>Local</th>
<th>Mainland</th>
<th>Fresh</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>WTP (RPL)</td>
<td>-1.45</td>
<td>5.25</td>
<td>2.84</td>
<td>6.76</td>
<td>-12.40</td>
</tr>
<tr>
<td>WTP (CL)</td>
<td>0.13</td>
<td>5.70</td>
<td>2.60</td>
<td>7.57</td>
<td>-8.30</td>
</tr>
</tbody>
</table>

Values in US$/dozen

<table>
<thead>
<tr>
<th>RPL coefficients</th>
<th>CL coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price -0.494(0.039)***</td>
<td>-0.257(0.021)***</td>
</tr>
<tr>
<td>Set schedule -0.718(0.214)***</td>
<td>0.035(0.122)</td>
</tr>
<tr>
<td>Local 2.592(0.320)***</td>
<td>1.467(0.168)***</td>
</tr>
<tr>
<td>Mainland 1.403(0.265)***</td>
<td>0.670(0.175)***</td>
</tr>
<tr>
<td>Fresh 3.336(0.322)***</td>
<td>1.947(0.154)***</td>
</tr>
<tr>
<td>None -6.121(0.690)***</td>
<td>-2.135(0.387)***</td>
</tr>
</tbody>
</table>

*** p < 0.01
• Locally-grown aspect important to chefs
• Differentiate local product
  • Market that!
• Negative utility for set schedules = good sign for local farmers
Future studies

- Respondent fatigue
- Restaurant heterogeneity
- WTP and interactions between variables
- Cheap talk script
- Include farming method as attribute
• **WTP:**
  • $5.25/dozen more for local

• **Chefs prefer:**
  • Local>mainland>foreign
  • Fresh>frozen
  • **Oysters as they become available**, not on set schedule
  • Oysters>no oysters, would pay $12.40

**Take home message:**
Locally-grown oysters possess attributes preferred by chefs → industry viable
Acknowledgements

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- All survey participants
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Thank you!
Questions/comments?