Sustainable fish made in Germany: A consumer’s perspective

Katrin Zander, Yvonne Feucht, Antje Risius und Ulrich Hamm
Thünen Institute of Market Analysis and University of Kassel

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Background

• German seafood production with small share in increasing global production
• Degree of self sufficiency about 12% in Germany
• Distribution: direct sales and catering
• Expansion via retailers
  → International competition → higher production costs
• Consumer preferences for domestic and sustainably produced seafood needed in order to compensate farmers for higher costs

Aim

• Assessment of the prospects for German fish from sustainable aquaculture
• Development of communication strategies
Methodological approach

- Little was known about consumers and their opinion on aquaculture
- Supposedly, limited knowledge of consumers
- Several research steps needed to come out with recommendations
**Method Mix**

<table>
<thead>
<tr>
<th>Qualitative</th>
<th>Focus Groups</th>
<th>Think Aloud Protocols plus in-depth interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aim</strong></td>
<td>Awareness and expectations of sustainable aquaculture and its labels</td>
<td>Reactions to different packages of sustainably produced aquaculture products</td>
</tr>
</tbody>
</table>
| **Strengths** | - Explorative approach  
- Interaction  
- Variety of opinions and attitudes | - Uptake and processing of information  
- Understanding and assessment of the information presented |
Focus Groups
Awareness and expectations of sustainable aquaculture and its labels

Think Aloud Protocols plus in-depth interviews
Reactions to different packages of sustainably produced aquaculture products

Qualitative

Aim

Strengths

- Explorative approach
- Interaction
- Variety of opinions and attitudes

Quantitative

Aim

Strengths

- Uptake and processing of information
- Understanding and assessment of the information presented

Choice Experiments plus standardised questionnaire
Impact on buying decision of different indications

- 'Representative' (N=459)
- Relative preferences (- Explanation)
Information provided (FG)

Earth ponds

Flow-through systems

RAS - Recirculating Aquaculture Systems
Results (FG and TAP)

- Consumers’ knowledge of (sustainable) production methods in aquaculture is low
- Low willingness to look for and process additional information on fish
- Transfer of knowledge of and attitudes on agriculture to aquaculture
- Sustainable aquaculture
  - Near-natural production (earth ponds were preferred over closed recirculation systems)
  - Fish welfare (stocking rates)
  - Low level of medication
- Geographical origin relevant (TAP)
- Low knowledge of labels (organic labels better known)
- Information overload → Confusion and distrust
Choice Experiment (computer assisted)
## Preferences for product attributes

<table>
<thead>
<tr>
<th>Variable</th>
<th>Value</th>
<th>Coefficient</th>
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</thead>
<tbody>
<tr>
<td>Label</td>
<td>Naturland</td>
<td>0.99*</td>
</tr>
<tr>
<td></td>
<td>Fake</td>
<td>0.69*</td>
</tr>
<tr>
<td></td>
<td>ASC</td>
<td>0.55*</td>
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<tr>
<td>Message</td>
<td>Sustainable production</td>
<td>0.62*</td>
</tr>
<tr>
<td></td>
<td>Farmed in natural lakes</td>
<td>0.56*</td>
</tr>
<tr>
<td></td>
<td>Aquaculture</td>
<td>-0.02</td>
</tr>
<tr>
<td>Origin</td>
<td>Germany</td>
<td>2.22*</td>
</tr>
<tr>
<td></td>
<td>Denmark</td>
<td>1.58*</td>
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<td></td>
<td>Poland</td>
<td>0.59*</td>
</tr>
<tr>
<td></td>
<td>Turkey</td>
<td></td>
</tr>
<tr>
<td>Price</td>
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<td>(-0.345)*</td>
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</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>Importance weights in %</th>
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<tbody>
<tr>
<td>Origin</td>
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<tr>
<td>Message</td>
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<tr>
<td>Label</td>
<td>11.5</td>
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</table>
Conclusions/Summary

• Segment of interested consumers exists

• Important elements for communication
  • German origin
  • Naturalness
  • Animal welfare

• Consumers interested in sustainability issues seem to prefer organic products
What does that mean for the marketing of sustainable aquaculture products?

- Demand and higher willingness to pay exist
- Market potential in premium segment and for products with additional value

But sensitive and well-targeted communication needed:

- Local/domestic yes, sustainability important addition
- Near-natural production systems (biodiversity, traditional landscapes)
- ‘Revival’ of traditional fish species (mainly trout and carp, but also others)
- RAS need particularly intensive consumer communication (.additional value!)
What does that mean for the marketing of sustainable aquaculture products?

- ‘Sustainable aquaculture’ needs to rely on clearly defined, verifiable and markedly higher standards than the legal requirements
- High communication effort necessary in order to influence the buying decision of less involved consumers

→ Marketing strategy should encompass the whole value chain
→ Retail is challenged to make use of consumers’ higher willingness to pay for premium products in order to increase this market segment
Thank you!

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