Establishing customer preferences: The potential of choice modelling

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Outline

- Customer engagement requirements
- Revealed Vs stated preference techniques
- A brief description of choice modelling
- Biases
- Practical considerations
- New frontiers
- Conclusion
Customer engagement requirements

- WIRO requirements
- ESC expectations
…and so?

- To what extent can discrete choice experiments be used to engage customers and gather information about their values and preferences?
Stated Vs revealed preferences

- Revealed preference- ‘real world’ data
- Stated preference- hypothetical market.
Choice modelling

- Assumes that goods or services can be described in terms of their attributes or characteristics and the levels that these take.
- The focus is on the value placed on the attributes, and of marginal changes within these, rather than on the product as a whole.
Number of times water is unavailable to your home:

<table>
<thead>
<tr>
<th>PACKAGE A</th>
<th>PACKAGE B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 time per year</td>
<td>2 times per year</td>
</tr>
</tbody>
</table>

Length of time that water is unavailable to your home each time that it goes off:

<table>
<thead>
<tr>
<th>PACKAGE A</th>
<th>PACKAGE B</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 hours</td>
<td>5 hours</td>
</tr>
</tbody>
</table>

Time of day that water is unavailable to your home each time that it goes off:

<table>
<thead>
<tr>
<th>PACKAGE A</th>
<th>PACKAGE B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over the weekend</td>
<td>Mon-Fri sometime after 8am</td>
</tr>
</tbody>
</table>

Prior notification that water will be unavailable to your home:

<table>
<thead>
<tr>
<th>PACKAGE A</th>
<th>PACKAGE B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 day</td>
<td>2 days</td>
</tr>
</tbody>
</table>

Response to phone inquiries in the event of water becoming unavailable to your home:

<table>
<thead>
<tr>
<th>PACKAGE A</th>
<th>PACKAGE B</th>
</tr>
</thead>
<tbody>
<tr>
<td>You get straight through to a PERSON - you are not put on hold and there is no machine directing you to press buttons</td>
<td>You get straight through to a PERSON - you are not put on hold and there is no machine directing you to press buttons</td>
</tr>
</tbody>
</table>

Total Water & Sewerage bill for the year:

<table>
<thead>
<tr>
<th>PACKAGE A</th>
<th>PACKAGE B</th>
</tr>
</thead>
<tbody>
<tr>
<td>$800</td>
<td>$850</td>
</tr>
</tbody>
</table>

YOUR DECISION: If these were the only 2 options available to you, which option would you choose: Package A or Package B?
Choice modelling

• Models estimated allow for the calculation of:
  – Mean WTP
  – Part worth utilities
Designing a choice experiment

• Appropriate design is crucial
• Very little can be salvaged from a failed choice experiment!
Central Design Objectives

- Identification;
- Precision;
- Cognitive complexity, and
- Market realism.
Design

• Using of an iterative process involving focus sessions, interviews and survey pre-testing (see, for example, Lockwood & Carberry 1998).

• The researcher must identify those attributes which are:
  – significant,
  – important, and
  – controllable.
Criticisms of stated preference techniques

• Potential poor correlation between intent and behaviour. (Ajzen and Peterson 1988 p. 58)
• WTP does not equal actual payment.
• WTP does not equal WTA
Practical considerations

• CM is both time consuming and costly
• Art form or technical skill-importance of the iterative process
• Economic psychology of decision making
• Mean WTP may obscure variation in consumer preferences
• CM is only as good as those who use it!
New frontiers

- Computer aided personal survey instruments
- Internet-based surveys
- Efficient design- reduces sample size and cost.
In sum

- Choice modelling has potential
- Value not just in the models themselves but also in the qualitative phase
- Care needed in interpretation