Consumer preferences for organic and welfare labelled meat
A natural field experiment conducted in a high class restaurant

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Objective with paper

1. How a natural field experiment can be conducted in a high class restaurant without interrupting the daily running of the restaurant
2. How manipulations about organic, animal welfare, and price affected customers’ choices in the restaurant
An example of a natural field experiment

Features:

• *Open to public*: Everyone could enter the restaurant
• *Level of info. given*: Not mentioned that an experiment was going on to the restaurant guests
• *“Natural” commodity for setting*: Most veal in Norway is eaten in restaurants
• *Natural environment*: Restaurant guests expect to choose courses
Advantages by doing a restaurant experiment

- The menu is all info. that is communicated to customers ⇒ no need to design a package for the product
- Participants do not know they are monitored:
  ⇒ Real behavior
  ⇒ No Hawthorne effect
- Experiments usually outperforms stated preference choice in accuracy
Disadvantages by doing a restaurant experiment

- Cannot control everything as in the lab. I.e. “non-sterile” environment
- Changing in menu may be confusing for waiters
- Have no screening of participants
- Should not disturb the guests unnecessarily \(\Rightarrow\) we were not allowed to interview them after eating
The product tested

• Veal: A very unfamiliar product for Norwegians
• Organic: Only 1.2 percent of food consumed in Norway is organic
• Animal welfare: Norwegian do care about it, but think it is a governmental task to ensure it
• Brand: Used veal from Grøndalen farm, known for animal welfare
Description of experiment

- Conducted in a restaurant in Radisson Blu Plaza Hotel, Oslo
- A good restaurant with 62 seats
- Lasted two weeks in June 2010
- N=462, no. of main courses sold (38 percent of these were veal)
- Two types of customers dominate:
  - Weekdays: Business people
  - Weekends: Tourists
- Every second day we changed description of veal course holding everything else constant
Variables and their values

Independent:
1. *Organic* (whether the word was used or not):
   0=Not organic, 1=Organic
2. *Animal welfare* (whether a description was given or not):
   0=No description, 1=Description given
3. *Price* (price level of veal course):
   - Low = NOK 245 (€ 30)
   - Medium = NOK 274 (€ 34)
   - High = NOK 310 (€ 38)
4. *Weekend* (type of day veal course was sold):
   0=Weekday, 1=Weekend

Dependent:
Purchase of veal course (dummy)
## Menu descriptions

<table>
<thead>
<tr>
<th>Organic?</th>
<th>Animal welfare?</th>
<th>Menu text</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>Trio of veal from Grøndalen farm.</td>
</tr>
<tr>
<td>Yes</td>
<td>No</td>
<td>Trio of <strong>organic</strong> veal from Grøndalen farm.</td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td>Trio of veal from Grøndalen farm from happy calves that have received much care and exercise</td>
</tr>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>Trio of <strong>organic</strong> veal from Grøndalen farm from happy calves that have received much care and exercise</td>
</tr>
</tbody>
</table>
### Logit regression results
**Full sample**

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Coefficient</th>
<th>Standard error</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.34</td>
<td>0.22</td>
<td>0.127</td>
</tr>
<tr>
<td>Organic</td>
<td>0.10</td>
<td>0.22</td>
<td>0.65</td>
</tr>
<tr>
<td>Animal welfare</td>
<td>0.34</td>
<td>0.21</td>
<td>0.109</td>
</tr>
<tr>
<td>Low price</td>
<td>-0.37</td>
<td>0.24</td>
<td>0.116</td>
</tr>
<tr>
<td>High price</td>
<td>-0.78*</td>
<td>0.28</td>
<td>0.006</td>
</tr>
<tr>
<td>Weekend</td>
<td>-0.04</td>
<td>0.21</td>
<td>0.865</td>
</tr>
</tbody>
</table>

| N                     | 462         |
| Log likelihood        | -302.280    |
| P value, X²           | 0.022*      |
| Pseudo R²             | 0.021       |

* = Significant at 5%
Logit regression results
Weekdays only

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Coefficient</th>
<th>Standard error</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.60*</td>
<td>0.27</td>
<td>0.024</td>
</tr>
<tr>
<td>Organic</td>
<td>-0.92</td>
<td>0.56</td>
<td>0.101</td>
</tr>
<tr>
<td>Animal welfare</td>
<td>2.08*</td>
<td>0.68</td>
<td>0.002</td>
</tr>
<tr>
<td>Low price</td>
<td>-1.78*</td>
<td>0.58</td>
<td>0.002</td>
</tr>
<tr>
<td>High price</td>
<td>0.57</td>
<td>0.70</td>
<td>0.41</td>
</tr>
</tbody>
</table>

N 262

Log likelihood -167.582

P value, $X^2$ 0.001*

Pseudo $R^2$ 0.054

* = Significant at 5 %
Summing up

Experience from doing a restaurant experiment:

- Do not know much about choices within a menu. A restaurant experiment seems ideal to get more knowledge.
- No difference between lab and real world since lab = the real world ⇒ real behavior.

Results from our experiment:

- Low exploration power in general.
- Huge deviation between business and tourist guests in choices.
- Setting the veal price to low hurt sales.
- Animal welfare has a significant effect on sales, organic not.
Thank four your attention