Order in Product Customization Decisions: Evidence from Field Experiments

Jonathan Levav
Columbia University

Mark Heitmann
Christian-Albrechts-University at Kiel

Andreas Herrmann
University of St. Gallen

Sheena S. Iyengar
Columbia University
Differentiated product models

A product's utility is the sum of the utilities of its attributes.

Test this assumption in 3 experiments:
- One framed field experiment
- Two natural field experiments
3 Premises

- Consumers assess utility at decision-making time
- Assessing utility requires effort that depletes a limited mental resource
- Consumers overspend their mental capacity early - limited resources for later decisions
Depletion effect:

- Previous decisions with high or low number of options:
  - High-to-Low
  - Low-to-High

- Test peoples likelihood to accept a default alternative
1st experiment: Suit study

- Raffle 2 suits among 73 MBA students tasked with designing a suit ensemble
- Survey - to be given recommendations
- Suit configuration decisions, 8 attributes: suit fabric (100 options), suit lining fabric (5), shirt fabric (50), tie fabric (42), suit buttons (20), dress belts (8), and dress socks (20).
  - High-to-Low or
  - Low-to-High
- Final decision: socks
- Satisfaction survey
1st experiment: Suit study

Results:

- Significant and positive effect of order:
  Tendency to accept default greater in high to low

- Likelihood of default selection increases as variety increases

- Participants reported being more satisfied in the low-to-high condition than in the high-to-low condition:
  Relevant for firms
2nd experiment: Car study I

- 450 car buyers in Germany

- Configure car at computer terminal in the dealership:
  - 67 decisions about attributes of the car, made one at a time by clicking on the desired option
  - 8 target attributes (high-to-low or low-to-high) at the beginning
  - Different options have different prices
  - Default option at the top, already checked-off
2nd experiment: Car study I

Short questionnaire:
- Willingness to pay for the new sedan
- Rate their own knowledge of the manufacturer's cars
- Rate the importance of the target attributes

Car configuration:
- 3 groups (hi-to-low, low-to-hi, control)
- Dependent variable: default choice acceptance. Also recorded: price of the chosen option, time taken to arrive at the choice, total price for the car.

Satisfaction survey
2nd experiment: Car study I

Results:

- Overall tendency to accept the default greater in hi-to-low
- Likelihood of accepting the default increased as participants progressed through the high-to-low sequence
- Greater knowledge – reduced likelihood of default acceptance
- Participants in the high-to-low condition paid 1482.37€ more
- Participants reported being more satisfied in the low-to-high condition than in the high-to-low condition.
2\textsuperscript{nd} experiment: Car study II

- Replication of Car study I with 300 subjects
- Expensive attribute (engine) now appears at the end of the sequence for both groups
- Removing the engine from the target attribute list eliminated any statistically significant differences in purchase price between conditions
People appear more likely to accept default options when attributes with few options follow attributes with many options—a high-to-low sequence.

The tendency to accept the default appears to increase through the high-to-low sequence.

This contradicts the principle that the utility from a product is the sum of the utilities of its attributes.

Firms can take advantage of this effect.