5. Analyzing Consumer Market and Buying Behavior

Outline
• Influences on Buying Behavior
• Buyer Decision Making
• Probabilistic Choice Behavior

Understanding Consumer Needs
• Example: Tide’s new Swash line
• Whom to target?

Why to Study Consumer Behavior?
- Marketing concept
- What is consumer behavior?
  Consumer behavior is the study of the process by which consumers make decisions.
Marketing Issues

- High-low promotional pricing or everyday low price?
- How to maximize the effectiveness of product placements?
- Brand extension or establishing a new brand?
- Distributing products through e-tailers?

Simple Response Model

Stimulus → Organism → Response

Two Research Approaches

- Behavior approaches
- Cognitive approaches

Diversity of Consumer Behavior

- Consumers are different
- Decision processes are different
- The context of purchases is different
Model of Buying Behavior

Buyer Decision Process

Influences on Consumer Behavior

Social Factors
Influences on Consumer Behavior

- **Personal Influences**
  - Age and Family Life Cycle Stage
  - Occupation & Economic Circumstances
  - Lifestyle
  - Personality & Self-Concept

- **Technographics**

<table>
<thead>
<tr>
<th>Motivation/Desire</th>
<th>Career</th>
<th>Family</th>
<th>Entertainment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimistic &amp; High Income</td>
<td>Fast Forwards</td>
<td>New Age Nurturers</td>
<td>Mouse Potatoes</td>
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<tr>
<td>Optimistic &amp; Low Income</td>
<td>Tech-Strivers</td>
<td>Digital Hopefuls</td>
<td>Gadget-Grabbers</td>
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<tr>
<td>Pessimistic &amp; High Income</td>
<td>Hand-Shakers</td>
<td>Traditionalists</td>
<td>Media Junkies</td>
</tr>
</tbody>
</table>

Psychological Factors

- Motivation
- Beliefs & Attitudes
- Perception
- Learning

Maslow’s Hierarchy of Needs

1. **Physiological needs (food, water, shelter)**
2. **Safety needs (security, protection)**
3. **Social needs (sense of belonging, love)**
4. **Esteem needs (self-esteem, recognition)**
5. **Self-actualization (self-development and realization)**
Perception

- Selective Attention
- Selective Distortion
- Selective Retention

Attitude

- Are learned.
- Have an object.
- Have direction and intensity.
- Tend to be stable and generalized.

Fishbein’s Attitude Model

\[ A_j = \sum_{i=1}^{n} b_{ji} e_i \]

- \( A_j \) = Attitude toward object j
- \( b_{ji} \) = The strength of belief that the object j has attribute i
- \( e_i \) = The evaluation of attribute i
- \( n \) = The number of salient beliefs about the object

The Effectiveness of Product Placement\(^1\)

<table>
<thead>
<tr>
<th></th>
<th>Lower Plot Connection</th>
<th>Higher Plot Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Audio</td>
<td></td>
<td>*</td>
</tr>
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</table>

*Congruent placement enhances persuasion; incongruent placement improves memory.

Learning

• Classical conditioning
• Operant conditioning
• Marketing implications

Prospect Theory\(^1\)

• Reference points
• Gains and Losses
• Integrate or Segregate Gains?
• Integrate or Segregate Losses?


The New Model of Consumer Choice

- The value function \(v(.)\) from prospect theory is defined over gains and losses relative to some reference point.
- \(V\) is concave for gains and convex for losses:
  \[ v''(x) < 0, \ x > 0; \ v''(x) > 0, \ x < 0. \]
- The loss function is steeper than the gain function: \(v(x) < -v(-x)\).

Segregation or Integration?

How does the joint outcome \((x, y)\) get coded?
- Multiple gains
- Multiple losses
- Mixed gain
- Mixed loss
Evidence on Segregation and Integration¹

- Winning $50 and $25 in two separate lotteries vs. winning $75 in one lottery;
- A letter from IRS saying due to your arithmetical mistake you own $150 vs. two letters (one from IRS and the other from the state) saying you own $100 and $50 respectively;
- Winning $100 in a lottery and paying $80 to the landlord for some damage on the rug vs. winning $20 in a lottery.
- Spending $200 for a car damage and winning $25 vs. spending $175 for a car damage.

¹Thaler (1985), Marketing Science.

Probabilistic Consumer Choice Behavior

- Why may consumer choice be stochastic?
- Constant Ratio Model (CRM)
- Elimination by Aspects (EBA)

In which context are these models useful?

Scenario 1

<table>
<thead>
<tr>
<th>Brand</th>
<th>Windex</th>
<th>Lysol</th>
<th>Ajax</th>
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<tbody>
<tr>
<td>Drying Speed</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Color Attractiveness</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Polishing</td>
<td>11</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Scent</td>
<td>3</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td><strong>20</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

Constant Ratio Model

- \( P(X \mid A) = \frac{u(x)}{\sum_{y \in A} u(y)} \)
- \( A=\{\text{Windex, Lysol, Ajax}\} \)
- \( P(\text{windex}\mid A) = \)
- \( P(\text{Lysol}\mid A) = \)
- \( P(\text{Ajax}\mid A) = \)
Scenario 2

- Consumers are indifferent between the choice of Europe and Far East;
- 3 alternatives: \( A = \{\text{Europe, Europe+}$1\text{bonus, Far East}\} \).
- What would be the prediction by CRM on choice probabilities?

Elimination by Aspects

- Each alternative is viewed as a set of aspects;
- At each stage, an aspect is randomly selected;
- Eliminate those alternatives that do not include the aspect;
- The process continues until only one alternative remains.


Four Types of Buying Behavior

- **High Involvement**
  - Complex Buying Behavior
  - Dissonance-Reducing Buying Behavior

- **Low Involvement**
  - Variety-Seeking Behavior
  - Habitual Buying Behavior

Significant differences between brands
Few differences between brands