Thank you research funders!

- Horticultural Research Institute
- USDA Federal-State Marketing Improvement Program
- Michigan State University's Project Green
- Metro-Detroit and Western Michigan Flower Growers
- Corporate sponsor (since 2016): Masterpiece Flower Company LLC

Outline for today

1. Three types of product attributes: search, experience, credence
2. Consumers find the information they need - fast!
4. Value dimensions (functional, epistemic, conditional, social, emotional) related to price.
5. Attributes related to the environment (credence).
6. Plant guarantees are important (experience attribute).

Three types of attributes

- **Search attributes** can be readily evaluated before the customer makes the purchase. These would include foliage and/or flower color/shape/size and price.
- **Experience attributes** can only be evaluated after purchase. Drought tolerance, vegetable/herb flavor, flowering performance, sun/shade tolerance, fruit production.
- **Credence attributes** are more difficult to evaluate, even after purchase. Consumers rely on the brand and reputation of the seller. Production method (sustainable, organic), carbon footprint (intensive, limited), plant benefits (emotional, psychological, economic), plant guarantees.

People need information to make a purchase

- People with some prior experience and/or knowledge may be able to find search attributes by looking at the plant. Others may know what they like.
- Price is a search attribute that is necessary for purchase but is communicated on a sign/tag.
- The experience and credence attributes cannot be evaluated at purchase (and make great candidates for sign information!).

Consumers read many signs.

Results from 2019 in-store shopping study showing average number of actions that 154 consumers engaged in by retail store and overall from a 12-minute shopping task to buy a $10 plant.

<table>
<thead>
<tr>
<th>Store Identification Code</th>
<th>Q</th>
<th>R</th>
<th>S</th>
<th>T</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>36</td>
<td>39</td>
<td>38</td>
<td>41</td>
<td>154</td>
</tr>
<tr>
<td>Plant interactions (look, touch, smell)</td>
<td>10.3</td>
<td>14.1</td>
<td>17.2</td>
<td>15.9</td>
<td>14.5</td>
</tr>
<tr>
<td>Read signs with price</td>
<td>8.9</td>
<td>9.8</td>
<td>9.4</td>
<td>7.6</td>
<td>9.3</td>
</tr>
<tr>
<td>Read signs without price</td>
<td>8.9</td>
<td>9.3</td>
<td>5.4</td>
<td>1.2</td>
<td>6.3</td>
</tr>
<tr>
<td>Read tags</td>
<td>5.2</td>
<td>4.3</td>
<td>3.9</td>
<td>4.3</td>
<td>4.9</td>
</tr>
</tbody>
</table>

Note: $1 = 1.8 British Pounds. (To purchase: The Shopper’s Survey, Journal of Brand and Consumer Services)
What was the primary attribute consumers used to make the purchase decision?

- Plant type or plant material (73%)
- Production method (10%)
- Price (17%)

Production sign 1.23 0.90 1.17
Plant ID sign 1.15 1.23 1.35
Price sign 1.49 2.01 1.65
Plant material 1.21 1.21 1.36

Methods

- Had 5 experts score 52 garden retail signs for complexity and selected 5 simple, 5 complex, and 5 moderately complex signs.
- Recruited 84 volunteers August 13-15 (2018) to the MSU Horticulture Consumer Research Lab, paying them $20 each for participation.
- Asked them (1) how attractive is the sign? and (2) how likely are you to buy a plant from a display with this sign?
- Our hypothesis was that complex signs would be more attractive and evoke a greater likelihood to buy.

- Sign complexity level varied with the amount of information, images, and fonts.

<table>
<thead>
<tr>
<th>Sign Complexity Level</th>
<th>Likelihood to Buy (0-10)</th>
<th>Attractiveness (standardized -1 to +1)</th>
<th>How long did they read the sign? (sec)</th>
<th>Area of sign read (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>6.40 C</td>
<td>0.38 C</td>
<td>4.82 CDEF</td>
<td>74.3 D</td>
</tr>
<tr>
<td>Moderate</td>
<td>7.64 A</td>
<td>0.96 A</td>
<td>6.07 ABC</td>
<td>67.4 E</td>
</tr>
<tr>
<td>High</td>
<td>4.94 GH</td>
<td>-0.34 E</td>
<td>5.22 ABCD</td>
<td>47.5 H</td>
</tr>
</tbody>
</table>

Likely to Buy | Attractiveness | Percent Read | Time Reading
Low Complexity | Low Med. High | Low Med. High | Low Med. High
Moderate Complexity | Low Med. High | Low Med. High | Low Med. High
High Complexity | Low Med. High | Low Med. High | Low Med. High

People find information they need fast!

How much of a sign do consumers read?

- What format (simple, moderately complex, highly complex) motivates more purchases?
- What format is perceived as more attractive?
- What format encourages people to read more?
What did we learn?

- Consumers rated complex signs higher (more attractive) and reported a greater likelihood to buy plants from displays with them.
- Consumer read a higher percentage of the information on moderately complex signs. Goldilocks effect?
- Consumers want to know more about the plant, but don’t always read about it. More info on the sign looks more complete (but I don't have to read it all).
- Sign diversity helps as we are “wired” to see the differences.

Price

It's what you give to get something. Assignment of value. Can be a purchase barrier or driver. It's a necessary search attribute.

Five ways we “assign” value.

1. Functional value
2. Epistemic value
3. Conditional value
4. Social value
5. Emotional value

Elements of perceived value

1. Functional value
   - Features, functions, attributes, or characteristics (How good does it look? Quality?)
   - Performance (Does it do a good job?)
   - Outcomes or consequences (environmental benefits: pollinator food)

2. Epistemic value
   - Novely or capability to satisfy a desire for knowledge (Is it a new cultivar or color?)
   - Sensory value (Fragrant? New color? Different flavor?)

3. Conditional value
   - Symbolism or meaning relating to socio-cultural events and traditions: red rose is American floral symbol and means “I love you”
Elements of perceived value

4. Emotional value
   - Joy or positive feeling from buying the product (no fear of missing out: FOMO)
   - Personal investment time, effort, and energy to acquire the desired product

5. Social value
   - Helps consumer identify with a specific social group or enhance their perception in the eyes of others (again, no FOMO from Instagram pics because I have the plant)

Where is the value when we price all containers the same?

1. Functional value
2. Epistemic value
3. Conditional value
4. Social value
5. Emotional value

These are credence Attributes

Focus on features: Search attributes (What the plant is)

Focus on benefits: Credence attributes (What it does)

Features facilitate purchases, especially at higher price points

This is a good sign.

Benefits

This is a good sign!

Grafted Tomato Plants

$11.99 each (2.75 qt. pack)

Growing tomatoes is easy in spring. 

For best results, choose a larger variety of tomato.

Michigan and Texas
N=154

Benefits

Make the benefit the headline and the price the byline.

How fast do consumers see high, medium, and low prices?

<table>
<thead>
<tr>
<th>Price Position</th>
<th>Left Average Seconds</th>
<th>Right Average Seconds</th>
<th>F (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>1.72 A</td>
<td>1.72 C</td>
<td>F=14.52 (p=0.001)</td>
</tr>
<tr>
<td>Medium</td>
<td>1.57 A</td>
<td>1.60 D</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>1.67 B</td>
<td>1.71 C</td>
<td></td>
</tr>
</tbody>
</table>

Consumers see signs on the left faster than on the right. They see higher prices faster than lower prices. They see high and moderate prices on the left faster than on the right.

What helps sell plants more: price, sale font size, sale font color, price location?

- **Plant Type (38.1%) A**
  - vegetable > petunia > herb
- **Price (23.3%) B**
  - percent off or B3G1 > regular price
- **Price Font Size (19.3%) C**
  - small > intermediate > large
- **Sale Font Color (10.2%) D**
  - black > red
- **Sale sign location (8.6%) D**
  - left > right

People find the information they need fast!

<table>
<thead>
<tr>
<th>Time to first fixation (in seconds) by customer segment.</th>
<th>What was the primary attribute consumers used to make the purchase decision?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer segment</td>
<td>Plant type (10%)</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Production sign</td>
<td>1.23</td>
</tr>
<tr>
<td>Plant ID sign</td>
<td>1.15</td>
</tr>
<tr>
<td>Price Sign</td>
<td>1.09</td>
</tr>
<tr>
<td>Plant material</td>
<td>0.97</td>
</tr>
</tbody>
</table>

How fast did consumers find information that most helped them make a purchase decision? Very quickly!

People find the information they need fast!

What was the primary attribute consumers used to make the purchase decision?

- **Production sign (10%)**
  - urban > rural
- **Plant ID sign (15%)**
  - urban > rural
- **Price Sign (17%)**
  - urban > rural
- **Plant material (18%)**
  - urban > rural

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People find the information they need fast!
What did we learn?

- Consumers were more likely to buy when there was a smaller price font on the sign. Why do we highlight price as though it is the most important attribute? Simply reduce the font size when increasing the price point.
- Put “sale” sign location on left of display to evoke higher likelihood to buy.
- Red font color for the word sale did not have as big an effect as we thought (gender difference).

Three types of attributes

- Search attributes can be readily evaluated before the customer makes the purchase. These would include foliage and/or flower color/shape/size and price.
- Experience attributes can only be evaluated after purchase. Drought tolerance, vegetable/herb flavor. To a lesser extent flowering performance, sun/shade tolerance, productivity.
- Credence attributes are more difficult to evaluate, even after purchase. Consumers rely on the brand and reputation of the seller. Production method (sustainable, organic), carbon footprint (intensive, limited), plant benefits (emotional, psychological, economic), plant guarantees.

Knowing the recycled water came from the nursery increased perceived safety.

<table>
<thead>
<tr>
<th>Water Use</th>
<th>No prime (control)</th>
<th>Primer 1 (nursery)</th>
<th>Primer 2 (residential)</th>
<th>p value</th>
<th>Sig?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooking</td>
<td>2.01 a</td>
<td>2.68 b</td>
<td>2.02 a</td>
<td>0.001</td>
<td>Yes</td>
</tr>
<tr>
<td>Drinking</td>
<td>1.90 a</td>
<td>2.19 b</td>
<td>1.86 a</td>
<td>0.001</td>
<td>Yes</td>
</tr>
<tr>
<td>Water edible plants</td>
<td>2.93 a</td>
<td>3.45 b</td>
<td>3.07 a</td>
<td>0.001</td>
<td>Yes</td>
</tr>
<tr>
<td>Bathing/Showering</td>
<td>2.42 a</td>
<td>2.01 b</td>
<td>2.45 a</td>
<td>0.001</td>
<td>Yes</td>
</tr>
<tr>
<td>Watering lawn</td>
<td>4.05</td>
<td>4.04</td>
<td>4.10</td>
<td>0.583</td>
<td></td>
</tr>
<tr>
<td>Flushing toilet</td>
<td>4.13</td>
<td>4.12</td>
<td>4.20</td>
<td>0.185</td>
<td>No</td>
</tr>
<tr>
<td>Watering orn. plants</td>
<td>3.97 a</td>
<td>3.98 a</td>
<td>3.85 b</td>
<td>0.046</td>
<td>Yes</td>
</tr>
<tr>
<td>Water public park</td>
<td>3.94</td>
<td>3.95</td>
<td>3.94</td>
<td>0.006</td>
<td>No</td>
</tr>
</tbody>
</table>

Measured using a 5 point Likert Scale: 1 = extremely risky, 5 = extremely safe

Molbak’s, Woodinville, WA

Coolings Garden Centre, England

Coolings Garden Centre, England
How important are plant guarantees?

For each day increase in money-back guarantee (MBG) length, we observed a 0.0337% decrease in perceived risk (PR), which meant that a 90-day MBG on a plant would reduce PR by 3%.

What did we learn?

- Communicating a plant guarantee was more important than price in this study.
- Water message (needs no irrigation to grow and thrive) is not resonating (yet) in Michigan but did in Texas.
- Water message or price early in the display may facilitate purchase intention especially in drought-prone areas.
- Consumers appeared to ‘do the math’ because B3G1 created similar purchase intention to 25% off.
Summary: What makes a good sign? Price

- The order and size font we use to communicate information is critical to purchases.
- People find the information they want - fast! Give them the opportunity to see more credence attributes (health and environmental benefits) before the price.
- People see higher prices faster, especially on the upper left side of the display.
- Have a higher priced item? Put the sign on the right.
- Have a sale item? Put the sign on the left.
- When the price is on the bottom of the sign, it helps purchase more than at the top or middle.

Summary: What makes a good sign?

- Think about all three attributes (search, experience, and credence). Communicate experience and credence attributes with products at higher price points.
- More benefits mean more value means greater likelihood to purchase.
- What are the environmental benefits? Reduced pesticide and water use? Low carbon footprint from growing on-site? Use of local labor?
- What are the emotional and health & well-being benefits? Use many from Charlie Hall & Melinda Knuth's updated benefits articles.