An Approach to Integrate Long Term Behavioral Measures to Identify Opportunities for New Products

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Q: Which of the following methods do you use most often?

- Consumer (Affective) Testing
- Discrimination Testing
- Descriptive Testing
- Qualitative Testing
- Observational Testing
- Human Factors Testing
- Others

Source: A biennial survey conducted by It! Ventures LLC and The Understanding & Insight Group LLC to understand the changing role of the Sensory Professional.
Central location testing (CLT); Home use testing (HUT)

Hedonic measures: liking, purchase interest, and/or stated preference

Success criteria (from the sensory standpoint):

- Average liking > benchmark score

- Higher stated preference or liking compared to competitors
Despite their popularity and usefulness, we questioned whether these measures are good enough and give us answers we need.

- How is the benchmark score defined?
  - What happens if there is no benchmark (e.g., for “new to the world” products)?
- How do we incorporate tradeoffs consumers may be willing to make?
- Do these measures reflect actual behaviors?
- Do we know why consumers want the products? What benefits do consumer gain from using the products?
Extended Use Consumer Panel

- Capture and track behavioral measures (in addition to hedonic measures)
  - Product choice selection
  - Product usage
- Engage with consumers to understand the product experience
Setup: Extended Use Consumer Panel

**Product Introduction Session (Wk1)**
Familiarize through product trial and interact with others (particularly for “new to the world” product)

**Key Measures:**
- Initial interest or barrier to trial
- Product feedback based on initial trial

**Weekly Free Choice Selection and In-Depth Interviews (4-5 Wks)**
Develop and identify users. Understand early-stage product experience and adoption

**Key Measures:**
- Choice selection
- Usage
- Product experience
- Product feedback

**Ongoing Product Testing (CLT/HUT) + Free Choice Selection. Periodic in-depth interviews**
Understand changes in product experience and behavior over time

**Key Measures:**
- Liking rating
- Product feedback
- Choice selection
- Usage
- Product experience
“Product Choice Selection”
Tracking product choice selection helps assess sensory performance over time

- Initially, both products perform similarly. Tracking product choice over extended period indicates that **Product A** outperforms **Product B** over time.
Tracking choice selection also helps bridge the liking measure to actual behavior

- This approach allows us to connect the liking rating to actual behavior. In this case, we determine to use %6 and 7 liking rating as a proxy for highly acceptable products.
Product choice selection can be used to identify desired level of key sensory attributes.
Tracking product choice selection also helps identify consumer segments based on product preference.

**Flavor Preference**
- 42% preferred non-mint flavored products
- 58% preferred mint flavored products

**Preference Based on Sensation Level**
- 77% Preferred Less Intense Products
- 23% - Sensation Seekers
“Product Usage”
Tracking product usage helps assess short term and long term product performance

- Understand how long it takes for consumers to incorporate the new product to their life
- Assess the impact of new product usage on current product
“Product Experience”
Product Experience

- Whole product experience = Linking product attributes to benefits (functional or emotional) to values

- Understanding product experience is critical particularly for new product
  - Why would consumers want or need this new product?
  - Why would consumers choose to use this new product?
  - What benefits do consumers gain from using this product?
Assessing overall product experience allows us to identify potential consumer segments

- Through stories consumers share with us regarding their product experience, we can identify different consumer segments.

<table>
<thead>
<tr>
<th>Product Experience</th>
<th>No Benefits</th>
<th>Realized Product Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“Non-User”</td>
<td>“Like It”</td>
</tr>
<tr>
<td></td>
<td>Not interested and Not for me</td>
<td>Positive experience and values – use in many occasions</td>
</tr>
<tr>
<td></td>
<td>“Situational Use”</td>
<td>“Love It”</td>
</tr>
<tr>
<td></td>
<td>Incorporate and use in some occasions</td>
<td>Realize higher values – adopt it and become new routine</td>
</tr>
</tbody>
</table>
Tracking product experience reveals that these consumer segments can shift over time.
Understanding consumer segments helps us identify alternative approach to assess product acceptance

- The more interest and excitement with the product, the more discriminating and selective.

![Bar chart showing mean liking scores for Product A and Product B among Situational Users and Like It/Love It segments. Product B performs better than Product A among both segments.](chart.png)
Factors to Consider with Extended Use Consumer Panel

- **A learning laboratory**
  - May not perfectly predict real marketplace performance
  - Learnings and insights should be used to form hypotheses that can be validated when products are launched

- **Product adoption - response bias**
  - Once a product has been introduced and adopted by consumers, other products tend to be less acceptable
  - Consider shortening the length of panel to 3-4 months
“Product Adoption – Response Bias” can be found in the Extended Use Panel

- Once consumers develop preference for a certain product, they tend to rate that product higher and rate other products lower in liking.

![Graph showing overall liking for Product A introduced first versus Product B introduced one year later.](image-url)
Summary

- Extended use consumer panel offers an opportunity to integrate behavioral measures in addition to hedonic measures
  - Choice selection
  - Product usage

- Offers different views to assess product acceptance, short term vs. long term performance

- Gain deeper understanding of consumer product experience to assess likelihood of product success
Different consumer segments have different patterns of usage/consumption.

**Increasing Trend of New Product**

**Declining Trend of Existing Product**
Additional insights can be gained from observing consumer responses to the product over time

- **Examples:**
  - **Product adoption – Response Bias**
    - Once a product has been introduced and adopted by participants, other products tend to be less acceptable
  - **Sensory segments exist based on flavor and taste preference**
    - Participants can be grouped based on their sensory preference. We use different groups to assist the development of different products