Segmentation: 3 ways to go

What are the potential markets and submarkets for your product?

1. Pick one variable (e.g., income) and segment by it.

2. Pick two variables (e.g., importance of “price” and “noise”), create a perceptual map, and look for segments by eye.

3. Collect info on a lot of things, e.g.:
   usage, utilities, favorite brands, demographics

   ==> Use cluster analysis to find segments whose members are similar on many dimensions.
Fine point #1: How do you define similar?

Suppose there are only 2 dimensions… (for air conditioners)
What about more than 2 dimensions?

... compute Euclidian distance for each pair

<table>
<thead>
<tr>
<th></th>
<th>Bill</th>
<th>Linda</th>
<th>Chris</th>
<th>B-L</th>
<th>L-C</th>
<th>B-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>6KBtu</td>
<td>-0.62</td>
<td>-4.5</td>
<td>-1.5</td>
<td>15.1</td>
<td>9.0</td>
</tr>
<tr>
<td>Reliability</td>
<td>0.01</td>
<td>12</td>
<td>8.5</td>
<td>6.5</td>
<td>12.3</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>0.05</td>
<td>5.375</td>
<td>7.75</td>
<td>4.25</td>
<td>5.6</td>
<td>12.3</td>
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<tr>
<td>Price</td>
<td>700</td>
<td>-4.5</td>
<td>-0.5</td>
<td>-1.5</td>
<td>16.0</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>500</td>
<td>-4.25</td>
<td>-2.98</td>
<td>0.5</td>
<td>1.6</td>
<td>12.1</td>
</tr>
<tr>
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<td>400</td>
<td>-1.5</td>
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<td>3.1</td>
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<tr>
<td>Noise level</td>
<td>Vlow</td>
<td>1</td>
<td>2.75</td>
<td>9.25</td>
<td>3.1</td>
<td>42.3</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>1.75</td>
<td>0.25</td>
<td>9</td>
<td>2.3</td>
<td>76.6</td>
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<tr>
<td></td>
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<td>3</td>
<td>5.75</td>
<td>4.0</td>
<td>7.6</td>
</tr>
</tbody>
</table>

7.93 12.86 14.60
Fine point #2  What is distance from a person and a cluster (rather than to another person)?

Where does Person X belong?

1. To the cluster with closest individual (single linkage)
2. To the cluster with closest average individual (average linkage)
3. To the cluster with closest far individual (complete linkage)
4. Ward’s algorithm (minimizes within-cluster variance per # of clusters)
Cluster analysis provides the segmentation pattern in the form of a tree
With the tree, how do you define the segments?

- Draw a vertical line that clips the major (long) branches
- Count # of branches (= # of segments)
- Try to keep the number small
Summary

- Cluster analysis will identify groups of people who are similar on many dimensions.

- To interpret, ask yourself:
  
  “What kind of person would have these opinions or characteristics?”

  i.e., stereotype the cluster/segment

- Then add the cluster ID’s to the data set.