

Welcome to PDMA-India



Presenter

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Analytical Attribute Approaches

What are Analytical Attribute Techniques?

- ▶ Basic idea: products are made up of attributes -- a future product change must involve one or more of these attributes.
- ▶ Three types of attributes: features, functions, benefits.
- ▶ Theoretical sequence: *feature* permits a *function* which provides a *benefit*.

A. Product attributes (for our purposes) are of three types:

Features

Functions

Benefits

Features can be many things:

Dimensions

Source ingredients

Services

Structures

Esthetic characteristics

Manufacturing process

Performance

Trademarks

Components

Materials

Price

And many more

Benefits can be many things:

Uses

Savings (time, effort)

Sensory enjoyments

Nonmaterial well-being

Economic gains

And many more

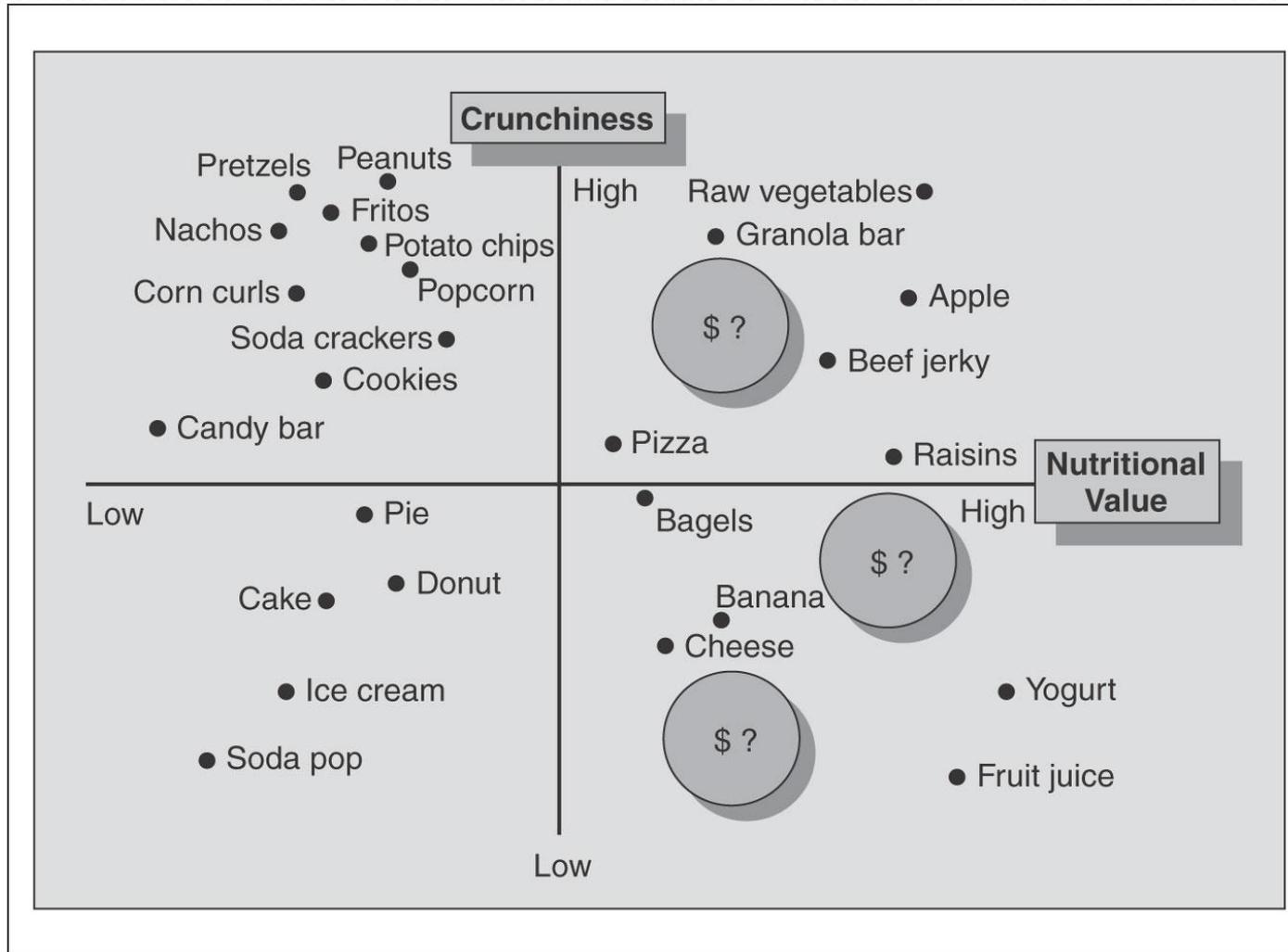
Benefits are either direct (e.g., clean teeth) or indirect (e.g., romance following from clean teeth).

Functions are how products work (e.g., a pen that *sprays* ink onto the paper). They are unlimited in variety, but are not used nearly as often as benefits and features.

Gap Analysis

- ▶ Determinant gap map (produced from managerial input/judgment on products)
- ▶ AR perceptual gap map (based on attribute ratings by customers)
- ▶ OS perceptual map (based on overall similarities ratings by customers)

A Determinant Gap Map

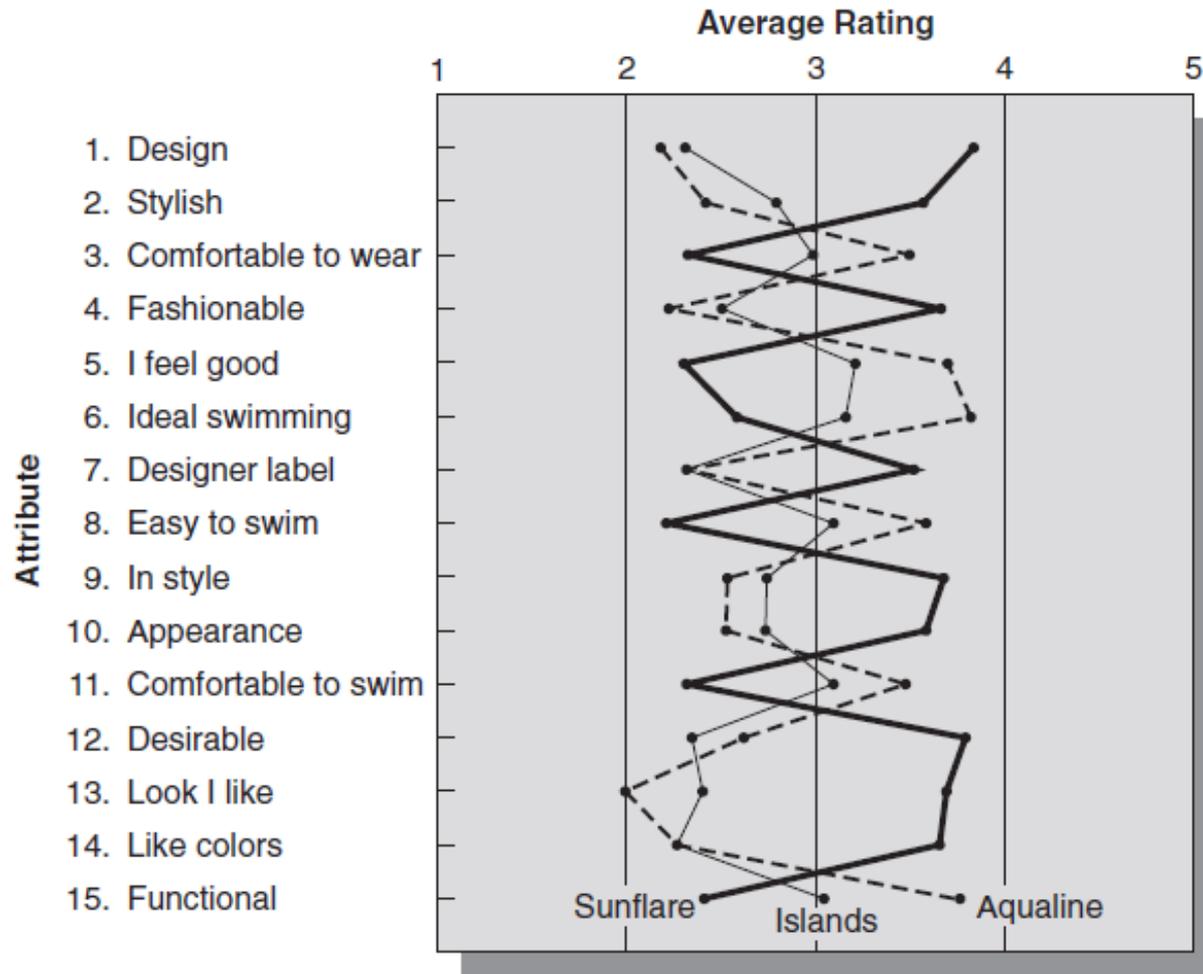


Perceptual Gap Maps Based on Attribute Ratings (AR)

▶ **Rate each brand you are familiar with on each of the following:**

	Disagree	Agree
▶ 1. Attractive design	1..2..3..4..5	
▶ 2. Stylish	1..2..3..4..5	
▶ 3. Comfortable to wear	1..2..3..4..5	
▶ 4. Fashionable	1..2..3..4..5	
▶ 5. I feel good when I wear it	1..2..3..4..5	
▶ 6. Is ideal for swimming	1..2..3..4..5	
▶ 7. Looks like a designer label	1..2..3..4..5	
▶ 8. Easy to swim in	1..2..3..4..5	
▶ 9. In style	1..2..3..4..5	
▶ 10. Great appearance	1..2..3..4..5	
▶ 11. Comfortable to swim in	1..2..3..4..5	
▶ 12. This is a desirable label	1..2..3..4..5	
▶ 13. Gives me the look I like	1..2..3..4..5	
▶ 14. I like the colors it comes in	1..2..3..4..5	
▶ 15. Is functional for swimming	1..2..3..4..5	

Snake Plot of Perceptions (Three Brands)



Data Reduction Using Multivariate Analysis

- ▶ **Factor Analysis**

- ▶ Reduces the original number of attributes to a smaller number of factors, each containing a set of attributes that “hang together”

- ▶ **Cluster Analysis**

- ▶ Reduces the original number of respondents to a smaller number of clusters based on their benefits sought, as revealed by their “ideal brand”

Factor Loading Matrix

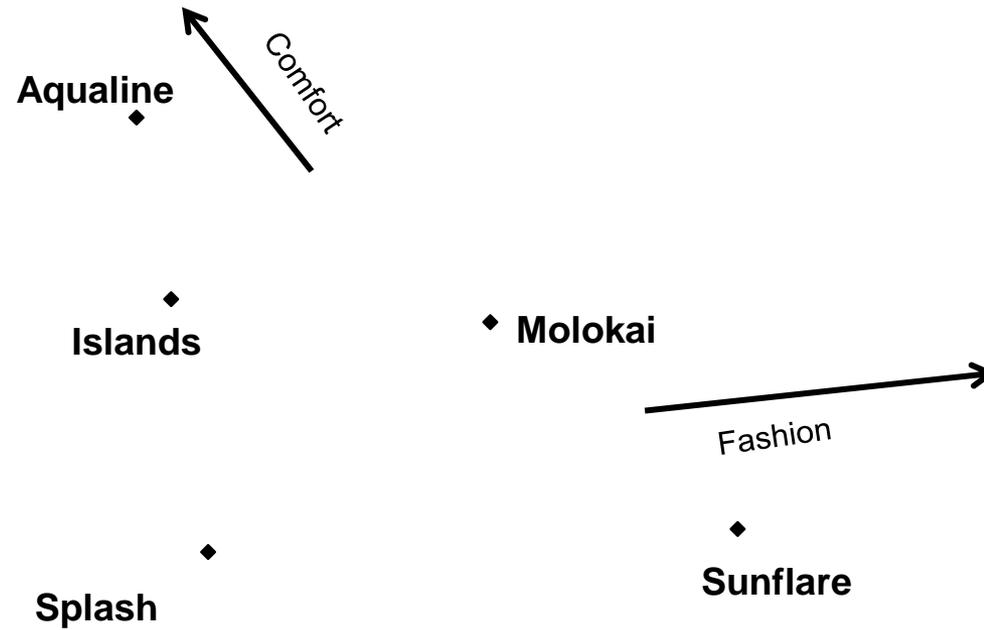
Attribute	Factor 1 -- "Fashion"	Factor 2 -- "Comfort"
1. Attractive design	<u>.796</u>	.061
2. Stylish	<u>.791</u>	.029
3. Comfortable to wear	.108	<u>.782</u>
4. Fashionable	<u>.803</u>	.077
5. I feel good when I wear it	.039	<u>.729</u>
6. Is ideal for swimming	.102	<u>.833</u>
7. Looks like a designer label	<u>.754</u>	.059
8. Easy to swim in	.093	<u>.793</u>
9. In style	<u>.762</u>	.123
10. Great appearance	<u>.758</u>	.208
11. Comfortable to swim in	.043	<u>.756</u>
12. This is a desirable label	<u>.807</u>	.082
13. Gives me the look I like	<u>.810</u>	.055
14. I like the colors it comes in	<u>.800</u>	.061
15. Is functional for swimming	.106	<u>.798</u>

The AR Perceptual Map

Dissimilarity Matrix

	Aqualine	Islands	Sunflare	Molokai	Splash
Aqualine	X	3	9	5	7
Islands		X	8	3	4
Sunflare			X	5	7
Molokai				X	6
Splash					X

The OS Perceptual Map



Comparing AR and OS Methods

<i>AR Methods</i>	<i>OS Methods</i>
<i>Input Required</i>	
Brand ratings on specific attributes	Overall similarity ratings
Attributes must be pre-specified	Respondent uses own judgment of similarity
<i>Analytic Procedures Commonly Used</i>	
Factor analysis; multiple discriminant analysis	Multidimensional scaling (MDS)
<i>Graphical Output</i>	
Shows product positions on axes Axes interpretable as underlying dimensions (factors)	Shows product positions relative to each other Axes obtained through follow-up analysis or must be interpreted by the researcher
<i>Where Used</i>	
Situations where attributes are easily articulated or visualized	Situations where it may be difficult for the respondent to articulate or visualize attributes

Source: Adapted from Robert J. Dolan, *Managing the New Product Development Process: Cases and Notes* (Reading, MA: Addison-Wesley, 1993), p. 102.

Failures of Gap Analysis

- ▶ Input comes from questions on how brands differ (nuances ignored)
- ▶ The most troublesome aspect is that gap analysis discovers gaps, not demand.
- ▶ Analysis and mapping may be history by the time data are gathered and analyzed
- ▶ Acceptance of findings by persons turned off by mathematical calculations?

