

# Measuring Preference without Scale Usage Bias (MaxDiff Scaling)

## Traditional Method

Rating benefits (importance or desirability) using a 5-point, 7-point or 10-point scale

- ◆ Used to identify benefits which are most important to consumers
  - ◆ Results are often analyzed in total and within key demographic targets
- ◆ Can be a Primary input in segmentation (cluster) analysis

### Limitations of Rating Scales:

- ◆ Respondents tending toward neutral or extreme rating choices across all items
- ◆ Differing use of ratings scales by various demographic groups, reducing the ability to differentiate items
- ◆ Importance of core benefits tends to be overstated
- ◆ Little discrimination observed across top 2-box ratings
- ◆ Segmenting more prone to high rater and low rater segments

## Maximum Difference Scaling

- ◆ Maximum Difference Scaling is a scale-free technique (rooted in conjoint) used to measure the importance of, or preference for, benefits
- ◆ Properly designed MaxDiff scaling creates a more realistic exercise by forcing respondents to make a series of trade-offs among benefits
  - ◆ By definition, we force the relative importance
- ◆ The effectiveness of Maximum Difference scaling stems in part from more "realistic" data collection
  - ◆ Univariate analyses simply ask respondents to rate the importance of benefits... Trade-offs are not forced

## How MaxDiff is Designed

Select a set of benefits to be investigated

Place the benefits into several smaller subsets using an experimental design

- ◆ Typically 15-20 sets of four benefits are needed
- ◆ If properly designed: **order** (each benefit appears the same number of times across the sets and with other benefits an equal number of times) and **position** (each benefit appears the same number of times in each position) effects will be controlled

Present the sets one at a time to respondents. In each set, the respondent chooses the most important (preferred) and the least important (preferred) benefit

## Advantages of Maximum Difference Scaling

- ◆ Scale-free measurement
  - More actionable results (no high raters or low raters)
  - Easier to compare results across demographic groups
- ◆ Easy for respondents to answer as well as more engaging
- ◆ Identifies key drivers that often go unnoticed when using ratings
- ◆ Advances in computer processing allow for use of more sophisticated regression techniques to derive utilities (Hierarchical Bayes)

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## Analyzing MaxDiff Scaling

- ◆ A utility (importance value) for each benefit is derived at the respondent level using Hierarchical Bayes estimation
- ◆ Since raw utilities can be difficult to interpret, they are rescaled to produce a "share of preference" for each benefit
  - ◆ Sum of all benefits is 100% (respondent and aggregate level)
  - ◆ If testing 20 benefits and all benefits are equally important, then each benefit's share of preference would be 5% (1/20)
  - ◆ If 5% is indexed to 100, then a benefit with an index of 200 would result from a share of preference of 10% (5% \* 2)

	Share of Preference Indices		
	Total	Segment 1	Segment 2
Benefit 1	230	87	104
Benefit 2	193	58	118
Benefit 3	170	40	79
Benefit 4	159	146	245
Benefit 5	123	112	185
Benefit 6	118	57	112
Benefit 7	105	294	222
Benefit 8	95	84	5
Benefit 9	88	241	176
Benefit 10	66	151	97

## Product Feature Shares of Preference Indices

