MaxDiff Modeling
For Healthy Snack-Food Flavor Optimization

Case History

Category: *Health Snack Food Manufacturer*

Methods: *MaxDiff Analysis, Optimization, TURF Analysis, Choice Analysis*

Summary

A U.S. manufacturer of better-for-you snacks that contain no artificial products or flavors offered its product line in a select few flavors. The manufacturer wanted to evaluate a variety of permanent flavor-line extensions and seasonal or limited-time-only (LTO) flavors, as well as to optimize their mix of flavors. Decision Analyst partnered with the manufacturer in designing and implementing research that provided insights among three key groups of consumers: heavy users of the manufacturer's brand, light users of the manufacturer's brand, and product nonusers who were positive towards trying it.

Strategic Issues

Competition in the better-for-you snacks category is growing, as is competition to provide new and different flavors that appeal to a broad range of current and potential product purchasers. The client had a well-established customer base and needed to create news by offering potential new flavors and flavor mixes to increase sales among current buyers and to attract new buyers to the brand.

Research Objectives

The client's objectives in pursuing this research were twofold. First, they needed to evaluate their permanent flavor line vis-à-vis potential new, permanent line additions and flavors that could be moved in and out of the product line as seasonal or limited-time offerings. Second, the client wanted to identify the optimal mix of flavors to maximize product reach and purchase frequency across the three key consumer groups of interest.

Research Design and Methods

An online quantitative survey was conducted that included a MaxDiff exercise in which 40 different flavors were evaluated. Respondents were randomly assigned to 1 of 10 flavor blocks that included 15 sets of

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8 flavors, and they identified the flavor they were most interested in trying and the one they were least interested in trying in each set.

MaxDiff modeling was used over traditional rating scales for several reasons:

- MaxDiff overcomes scale bias (e.g., some respondents are high raters or low raters for all attributes).
- MaxDiff presents a less difficult and more engaging task for respondents to do than a full sort and rank.
- MaxDiff overcomes halo effects sometimes encountered in using rating scales due to respondents giving overly good ratings to all flavors because of overall liking of the product.

MaxDiff was used to develop optimal combinations of flavors instead of using TURF(Total Unduplicated Reach and Frequency) because:

- MaxDiff is a less tedious exercise than TURF. In TURF, respondents rate purchase intent one flavor at a time. In the MaxDiff exercise, respondents view subsets of flavors and select their most/least preferred per set, which is more engaging and realistic, and leads to more reliable results.
- TURF does not incorporate cannibalization within a set of flavors because each flavor is evaluated individually; consequently, the interplay among flavors cannot be assessed. MaxDiff incorporates cannibalization and can assess the interplay among flavors.

Results

The research identified the optimal mix of flavors that reached the highest percentage of consumers. The optimal mixes that were identified included flavors to augment the client's existing permanent flavor line, as well as flavors that could be moved in and out of the flavor line as seasonal or limited-time only flavors. As part of the research deliverables, the client received an Excel simulator of the MaxDiff analysis and other data that allows them to conduct innumerable "what if" scenarios across the various flavor sets and consumer segments.

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