

Category: *Toy Industry*

Methods: *Volumetric Concept Testing, Latent Class Choice Modeling, Calibration, DecisionSimulator™, Online Simulated Shopping*

Summary

A toy maker developed several toy concepts and wanted to know which of them should be taken to market. During an online survey, respondents were taken through two shopping exercises and made purchase decisions based on the available toys. Several latent class choice models were developed, measuring price and product utilities. Calibration to external sales data was applied to improve the reliability of volumetric estimates. After calibration, the total volume estimates were loaded into a DecisionSimulator™ that enabled the client to make toy selections based on potential units and revenue.

Strategic Issues

Within the highly competitive toy industry, a toy maker wanted to know which of several new concepts should be taken to market based on their volume and revenue potential. Each year the toy maker screened several non-platform toys for infants and toddlers. The company wished to select new product concepts that would be most successful in the upcoming holiday sales season.

Research Objectives

The main objective of this research was to determine which of the toys should be taken to market, given the current competitive landscape. More specifically, the client was interested in:

- Volumetric estimates of demand and revenue for each of the new product concepts among moms of children in the appropriate age ranges.
- Optimizing pricing for both new and existing toys in the product line.

Research Design and Methods

Several new toy concepts were developed, including prototypes, for testing in an online, simulated shopping exercise. Surveys were conducted with 650 moms using Decision Analyst's proprietary American Consumer Opinion® Online



panel. Each respondent viewed two different shelf sets and made purchase decisions based on the toys available in each.

For 500 of the interviews, both new and existing toys were presented. Each shelf set included:

- Six new toys.
- Five existing toys.
- Fifteen existing competitor toys (from three different competitors).

For 150 of the interviews, only existing toys were presented. Each shelf set included:

- Five existing toys.
- Fifteen existing competitor toys (from three different competitors).

Respondents selected toys to purchase for the following six occasions:

- Birthday for (1) their own child and (2) someone else's child
- Holiday for (3) their own child and (4) someone else's child
- Other occasion for (5) their own child and (6) someone else's child

Six latent-class choice models were developed, one model for each occasion, using the respondent choices.

Product and price utilities were measured for three latent-class segments per model. Total volume within the final DecisionSimulator™ was based on:

- Secondary data containing past-12-month unit volume for the existing products tested.
- Model projections for any given scenario relative to the current market for the existing products.

Results

The output from the DecisionSimulator™ was used to quantify potential units and revenue (next-12-month volume). The DecisionSimulator™ allowed the client to test many product line and price scenarios to further determine the best course of action for the holiday toy season. The client company was able to select the toys most likely to generate the greatest sales volume. Projections of revenue-maximizing product lines and pricing provided valuable input to the client's decision-making.

