Market Mix Modeling: Measuring Return from Advertising in the Fresh Food Industry

Case History

Category: *Fresh Food Industry*

Methods: *Advertising Research, Promotion Research, Marketing Mix Modeling, Econometric Modeling, DecisionSimulator™*

Summary

A major manufacturer of a fresh food product sold in grocery stores had spent $250,000 in the previous two years on advertising and $1.2 million per year in promotion allowances. The company believed it understood how to manage promotion allowances and how much return to expect in terms of sales. However, there was a question about the return on advertising expenditures; that is, how much stimulation of sales could be expected per Target Rating Point (TRP) of advertising?

Strategic Issues

The client company was spending significant funds on promotion and advertising within one particular market (MSA), with the result being significant growth in that market. As plans were being made to expand distribution to other markets, company leaders were undecided about how much to budget for promotion versus advertising. Should less money be spent on promotion and more on advertising to generate growth in new markets? To the extent that promotion allowances are given to specific retail chains, should these be allocated evenly to different chains? Or should these allowances be given in larger amounts to particular chains?

Research Objectives

The primary objective of this research study was to quantify the link between advertising, trade promotion, and sales. The quantification would determine how many additional units of product sales would be created by a given amount of promotion dollars for a particular product in a particular grocery store chain during a given week. Similarly, the study would quantify the additional units sold as a result of the quantity of advertising in a particular week.

A secondary but important objective was to develop a tool to maximize revenue by selecting the optimal mix of promotion allowance dollars across retail stores and products in the product line. In terms of advertising, the goal was to maximize the revenue increase by optimizing the mix of TRPs allocated to each product.

Research Design and Methods

It was decided to focus the research on a particular market, a large MSA. Decision Analyst received weekly product sales/revenue data for the years 2007 and 2008, along with some ancillary/explanatory documents that included:

- Fiscal calendars.
- Data warehouse metric definitions.

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- Customer and product definitions.
- Schedules of TRP purchases for the same time period.

The data were collated and cleaned. Then specialized time-series, cross-sectional, econometric techniques were applied to develop an econometric demand model that included effects for time trend, seasonality, nonpromoted price, promotion allowance, advertising TRPs, and lagged effects of advertising. The econometric demand model served as the basis for a simulation and optimization tool, using inputs of:

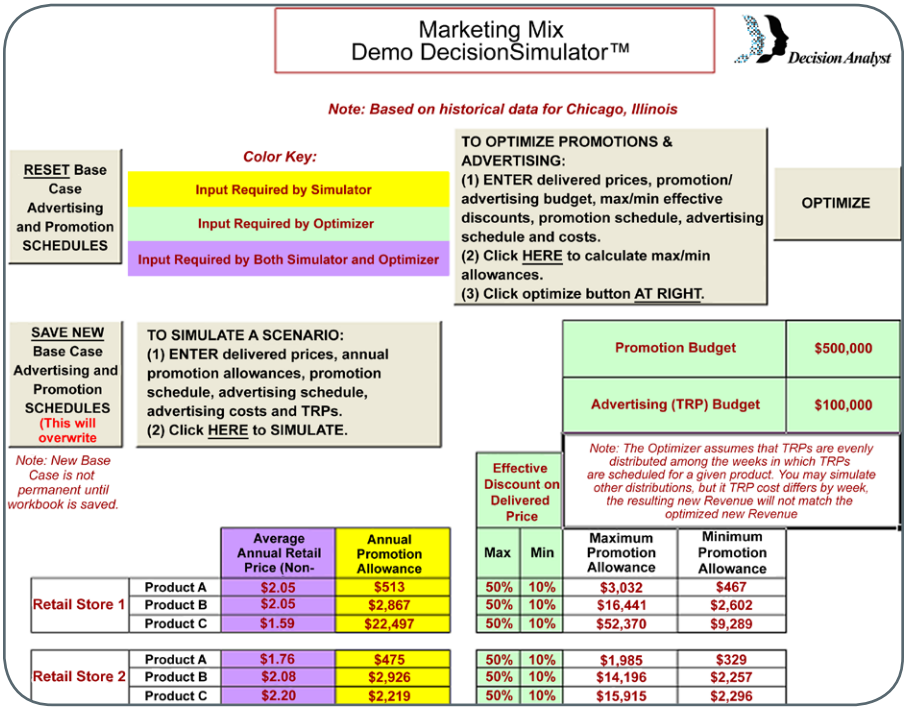
- Promotion allowances by product, retail store, and week.
- TRPs of advertising by product and week.
- Nonpromoted prices by product and retail store.
- The final report focused on model fit (i.e., validation), the overall return on promotion, and advertising.

Results

The research revealed how much return could be realized per dollar of promotion allowance, and how much return per dollar of advertising spending. For advertising expense, short-term return was quantified (within three months).

An Excel-based simulation and optimization tool was delivered to the client and it received high-level awareness at the global headquarters. The simulation and optimization tool assisted senior management in optimizing short-term return from promotion and advertising. Findings supported strategic decisions regarding the level and timing of advertising and promotional spending in various markets.

The client company sought suggestions for the next stages of research, such as how to expand the analysis to different types of markets and additional marketing media vehicles.



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