

Marketing Mix Modeling for a US-based Consumer Durables Firm

20%

net sales opportunities

12.7%improvement in
incremental sales**\$28m**

annualized cost savings

16%

ROI improvement

CLIENT CHALLENGES

- The client, a US CPG firm, wanted to quantify ROI of media vehicles such as DM and DRTV
- The ROI was to be quantified over a two-year period, for which time series data on marketing spending on these vehicles and total sales through different channels was available
- A multiplicative model was developed to forecast sales and arrive at the ROI from each vehicle

OUR APPROACH

- Identified data elements, e.g. sales, media spending, macro variables
- Performed sanity checks for variables, e.g. missing values, extreme values, etc.
- Calculated ad-stock functions to arrive at the most appropriate function for decay
- Tested for stationarity and autocorrelation in the sales time series and determined the appropriate differencing, autoregressive, and moving average terms
- Developed models incorporating alternate sales response functions
- Compared alternate models based on forecast accuracy and model stability
- Derived ROI the change in sales per unit change in spend based on the model prediction

IMPACT DELIVERED

- Enabled the client to estimate and comparatively evaluate the ROI from its various marketing channels
- Both DRTV and DM spending contributed significantly to sales growth (DRTV was a larger contributor than DM and also had superior ROI)

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