Marketing Mix Modeling 2

Regression model

last update: 06.01.2023 from Hendrik Huening

We choose a linear regression as the tool to find the optimal marketing mix for the channels OMA, Catalogue and Media. A linear regression models one dependent variable (in our case demand at day t) as a linear function of explanatory (or independent) variables. Explanatory variables are investments (spendings) in media, oma and catalogue as well as control variables such as a seasonality variable and information on competitors spendings (see subchapter "Competitors in the MMM"). Formally, the model can be summarized as follows:

$$\Delta demand_t = \alpha + \beta_1 * \Delta invest\_media_t + \ldots + \beta_n * \Delta Saisonality_t + \epsilon_t$$

Reasons for the use of the regression model approach

Linear regressions have advantages and disadvantages. We opted for a linear regression because results of the approach are easy to interpret and the model ist relatively easy to implement and to estimate. This question was also discussed within a ticket. If the true relationship of the modeled variables is non-linear, linear regression will perform sub-optimal compared to more sophisticated methods.

Marketing Mix Modeling at bonprix

last update: 14.02.2023 from Sandra Kleinewalter