Exabai

Marketing Mix Optimization

Calculating the ROI of any tactic used to attract customers has always been one of the most challenging marketing processes. The fact that no direct link exists among the different expenditures and the revenue achieved in several different locations and forms is only part of the problem. We also see the increase in the number of optional tactics available in an increasing number of channels with an always evolving mass of customers.

Today's companies need to be serviced with fast and accurate analytics, so they can react almost in real-time to how their marketing campaigns are performing. The introduction of large data volumes and the vast number of possible model variables impacts model fitting and it is time consuming. Linear Regressions are of not use to create useful predictive models. Old regression techniques with manual modeling techniques (SPSS, EVIEWS, SAS) are no longer an option since the bigger number of variables and the huge data series make this human task almost impossible.

The only real available solution is to make use of Python libraries like **MACHINE LEARNING and ARTIFICIAL INTELLIGENCE** to introduce the fine-tuning of Ordinary Least Squares regressions with MMO data into an intelligent loop. This way new modeling techniques, more capable and more precise, are created. And these are the new techniques that allows for faster and more accurate marketing campaigns' analysis using large data volumes and lots of variables.

Key Questions Answered

How do specific marketing tactics, media tactics and non-marketing baseline data drive revenue? What is the ROI for our marketing and media tactics? How can we further optimize revenue?

Benefit of this Model

1. Optimization across all marketing and media tactics that leads to incremental revenue
2. Machine Learning and Artificial Intelligence that offers more accurate modeling and it is faster. The use of this Python proprietary development reduces up to a 90% the needed time to do the calculation, including the fine-tuning, and improves up to a 50% the quality of the results, compared to a manual fine-tuning, when this is not, as in many cases, unfeasible.
3. Accurately forecast the impact of media, trade, distribution, price, and exogenous variables on sales.

Methodology

a. We take and debug all baseline, marketing mix expenditures and sales data series available from our customers.

b. We adjust obtained data series to get a homogeneous collection of variables liable to be analyzed.

c. We add micro and macroeconomic variables depending on the spatial scope and other characteristics of the analysis to be undertaken.

d. We set minimum and maximum values for any possible data series shift and maximum number of decay rates and decay periods to be considered regarding each tactic reach.

e. We use our proprietary Python development, using Machine Learning and Artificial Intelligence, to introduce the fine-tuning of the ordinary least squares regression modelled into an intelligent continuous loop, obtaining the true effect of each marketing tactic on our client's sales.

f. We then create a deck where we show our client every conclusion got from our analysis together with a set of marketing mix advises coming not only from absolute ROI results but also from observed tendencies. Deck can be static or included into a dynamic web dashboard.

Types of Data Involved

For all phases, we use weekly and daily baseline, media and sales activity for the last 2 years ideally. Machine learning affords us to measure ROI with a much more extensive data set and many more variables:

- Example Media data: TV (Campaign, Network/Cable, 15s/30s), Radio, Print, Catalog, OOH, Email, Display, Facebook, SEM, Online Video, PR

- Example Baseline data: Competitor (Volume, Share, Pricing, Advertising), Product, BTL (Customer Base, Price, Distribution, Consumer trends), Social Sentiment, Brand Equity, External (Seasonality, Economic like money supply, weather, major events)

About Exabai

Exabai delivers the best marketing analytics. We uncover fact-based insights to create business strategies, drive company growth, and deliver breakthrough communications. Client profits exceed $500 Million. We have worked with clients in more than 40 companies/institutions across 20 industries and 10 countries. www.exabai.com