

I know my business objective. What should I spend?

Contact us for advice

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Defining the issue

Most companies approve their marketing budgets based on a certain objective. Marketing activities are diverse and offer a number of opportunities to generate business growth both organically and externally. It is often hard to decide which level of advertising investment would most effectively support business growth, and complex proxies are often created to predict results.

What is the best approach?

1. Clearly define your objectives: Objectives often serve as precalculated proxies of business goals. It is actually easier to start the process with your business objectives (sales, market share, volume growth, margin protection) in order to best analyze advertising effectiveness.
2. Time bracketing: Prognoses can be established on either a short-term basis (1st purchase) or a long-term basis (loyalty).
3. Data quality: The more detailed the data, the more accurate the recommendation. If no or only little data is available, the model is based on market information.
4. Machine learning and iteration: The machine learning AI produces recommendations that can be compared with the actual situation to check for accuracy until satisfactory levels are achieved.

What can I use it for?

The most typical scenario is **product launch**. If your company does not have any pre-existing data, our team uses a set of market data including equivalent categories and product life cycles to assess potential market response to advertising stimuli.

Machine learning can provide **recommendations on timing and pressure per channel**.

Example

A typical scenario for objective-based media planning is the **iterative TV flight benchmarking process** that we have established for various clients. The basic idea behind this approach is simple:

1. **Define benchmark:** Define a target variable (e.g. sales volume) uplift goal (e.g. target variable uplift of 5%) for the next TV flight.
2. **Test benchmark:** Measure the actual target variable uplift caused by the TV flight.
3. **Adjust benchmark:** If you come up considerably short of your goal, adjust it according to your latest results.
4. **Repeat.**

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Every company does this at a top level, for example by comparing quarterly growth rates of different KPIs year-over-year. The difference here is that we are benchmarking the effectiveness of a specific factor, which makes the process more complex because you need to know how this specific factor affects the target variable independently of all other potential factors of influence.

Put simply, if we want to benchmark the effectiveness of TV flights in terms of sales volume, we need to do more than just look at total sales volume changes. We need to quantify what aspects of those changes are actually caused by TV flights and not other factors like price changes.

The first step in the process was to collect and connect all the relevant historical data needed for the MMM and to automate data integration for all following iterations. The first MMM iteration is of major significance as it serves to set the initially expected sales volume uplift of the next TV flight. It makes sense to specify the initial MMM on as much data as possible in order to get the best estimate of the expected effect of a specific TV flight on sales volume.

As a result, we specified an MMM on the previous five years of weekly

One straightforward example is the way in which we implemented this **iterative TV flight benchmarking process** in a setup with ongoing marketing mix modeling (MMM) for an **FMCG food brand**. The **client's objective** was to maximize the sales volume generated by TV flights.

The main part of the process was therefore to quantify the **causal impact of TV flights** in terms of underlying parameters on sales volume (TV advertising

pressure, creative, etc.). With an iterative MMM, we were able to decompose the weekly units sold curve to see precisely which aspects were causally driven by TV flights. We statistically attributed the changes in sales volume to different factors.

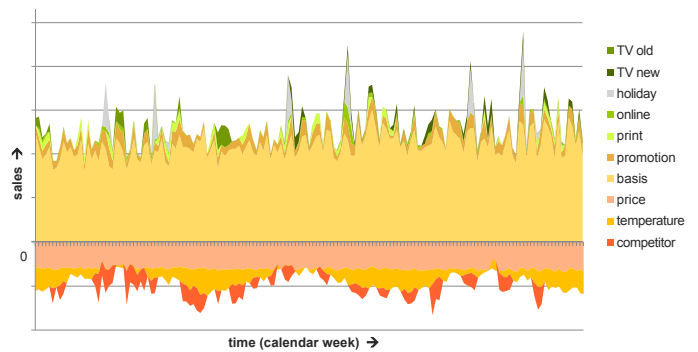


Figure: Sales decomposition

sales volume of the respective FMCG food brand to come up with an initial corridor of expected sales volume uplift as a percentage in order to benchmark the next TV flight. This corridor is estimated with respect to the underlying parameters of the TV flight, including

advertising pressure (TV GRP), flight length and structure, delayed advertising effects (adstock) and external effects like relative price changes, competitor activities and overall demand for the product category.

Period	Estimated Effect		Actual Effect
	Upper	Lower	
TV Flight 1 / 2019	8,15%	5,48%	??%

Expected sales volume uplift caused by TV flight: 5.48% to 8.15% (figure with confidence intervals)

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We have estimated that at least 5.48% of sales in the period of the next TV flight will be generated by that TV flight. It is important to note that this does not say anything about the total changes in sales volume. What it does highlight to is the relative magnitude of the causal effect of the TV flight on sales volume. Total sales volume might even decrease in the respective time period due to aspects like the price of the product increasing parallel to the TV flight.

After the next TV flight was finished, we **re-specified the MMM on the data including the respective TV flight** and specifically estimated the effect of this

TV flight on sales volume to actually see whether the sales volume uplift caused by TV was within our previously defined benchmark.

Period	Estimated Effect		Actual Effect
	Upper	Lower	
TV Flight 1 / 2019	8,15%	5,48%	12,60%

Expected sales volume uplift caused by TV flight vs. actually attributed (figure with confidence intervals)

In this particular case, the actual sales volume uplift caused by the TV flight is significantly above the estimated corridor. This was the case because a completely new TV spot creative was used for the first, which had an exceptionally positive impact on sales. We therefore adjusted the benchmark corridor upwards before the next iteration took place.

Important note

This is not a one-off: Using an objective-based approach is not only a setup option. Machine learning models improve your advertising/marketing investment over time, from one period to the next. It is also important to record and keep track of data sets and media performance in order to feed the model.

Audience clustering is not always productive: Sales data rarely provides a clear cluster of individuals and there is no particular need to cluster the predictions. The planning team can narrow these down the line.

Innovation is not excluded: Models use past data, but this does not prevent having access to predictions including media innovation.