

Use Cases

A better understanding of customer choice

Objective

The client was developing a new drug for birth control with which he intended to gain market for birth control drugs. To help make the right kind of decisions, the client wanted understanding of such issues as

What share of the market do they have? What is the expected future usage for different scenarios? Product profiles in this case mean combinations of various drug specific attributes

Approach

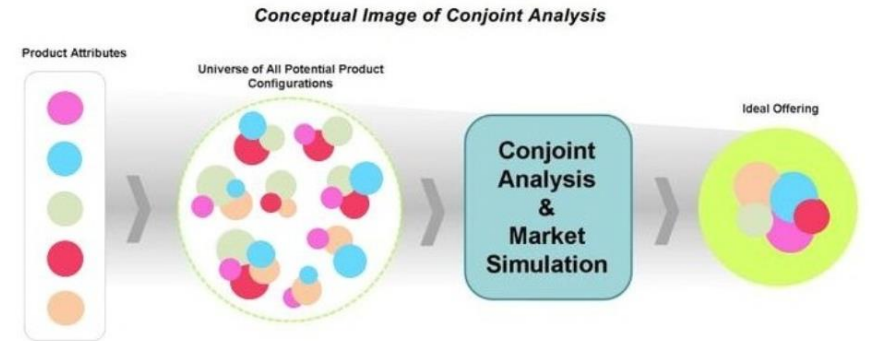
We conducted an online survey among obstetricians and gynecologists

In this study each MD was shown 20 hypothetical scenarios. Each scenario presented three different complete products each of which displayed different key product attributes in terms of levels of drug efficacy, drug safety, and drug risks and possible side effects. The MD was asked to choose the most preferred combination for each patient type.

Outcome

The study enabled the client to:

- understand the relative importance of each product attribute for each patient type.
- configure a formulation for the new drug for birth control.
- predict the potential share for the client's product given the current competition.
- it gives an estimate of how many customers might switch from competition to the new drug.



An ensemble segmentation approach to healthcare

Objective:

The client initiated a new biologic therapy and wanted to understand the potential drivers and barriers associated with it. He wanted to have a clear idea about the impact of the existing therapies in the market.

Approach:

The challenge was to apply a statistical technique that could handle huge data as well as multiple variables. We opted for an data-adaptive approach called random forest in which multiple models are generated instead of generating a single model.

The concept of generating multiple models is to reduce the error rate. An algorithm was developed to allow the machine to search the data and find useful predictors. The method called "Gini Index" is used for exclusion or inclusion of a variable from the analysis. A low value in the "Gini Index" indicates that the variable is a useful predictor. The random forest technique gives the flexibility in exploring and grouping variables. It gives clear ranking for each variable in order of its importance.

Outcome

The findings of the survey helped our client to better understand the reasons why biologic therapy is used to treat Ulcerative Colitis.

Awareness Trail Usage (ATU) Study

Objective:

The client had initiated a disease awareness campaign designed to increase dialog in the medical community regarding the needs of patients suffering from Parkinson's Disease Psychosis (PDP). The objective was to generate goodwill in the community and consequently nurture a positive disposition towards the brand. Since PDP is a comorbidity of Parkinson's disease, an increase of the awareness for the ailment should most likely translate into an increase of the usage of the client's drug.

To measure the impact of the client's marketing efforts a survey was set up to provide answers to the following questions:

- What level of exposure do physicians have to PDP awareness efforts?
- How have levels of awareness and knowledge about PDP and treatment options changed over time?
- What product attributes are the most important for physicians involved in PDP treatment?

Approach:

The online survey is designed for multiple usages over time. So far two waves have been conducted, one more is forthcoming. The target groups are neurologists and psychiatrists in the US.

Outcome

It was shown that the campaign had a markedly better impact on neurologists, and consequently the client has acted to strengthen their marketing efforts in the psychiatric field. Furthermore, the client has gained greater awareness of which information channels (medical conferences, medical journals etc.) were effectively delivering results and which weren't. This will enable the client to make better channel planning

Use of TURF to develop tailored messaging

Business Objective:

The messaging for a drug is being developed. The objective is to come up with a combination of minimum number of messages for maximum impact on the physicians/ MDs (potential prescribers of the drug).

Research Objectives:

To understand the message bundle that makes up the most motivating brand story, differentiating from competition, and thereby capture the largest portion of the market possible.

Methodology:

Message importance taken from Max Diff design.
The number of messages included in the design was 40

Message Bundle Evaluation:

Physician / MD 'carries forward' their own prioritized set of messages into a conjoint exercise. Respondents are exposed to a series of experimentally derived bundles of messages. They repeatedly select their 'preferred' bundle from the set of alternatives shown based on which one is most motivating and which is most differentiated.

Assessing the market using Latent Class Segmentation

Business challenge

Scientists around the world have made advances targeted towards improving the body's immune system for the treatment of various types of cancer. These advancements have led to new therapies. This survey we executed focused on the treatment of cancers, across different tumor types. The purpose of this research was to understand how the patients with the listed conditions were treated.

Objective

- To identify the drivers of prescribing behavior and how they may differ among different segments.
- To identify patient's differential needs, symptoms, psychographics, and treatments, for each segment.
- To profile the segments on demographics, behaviors, attitudes, and future intent to prescribe drug.

Approach

A quantitative survey was conducted for physicians treating cancers in US. The objective was to optimise drug targeting and messaging strategy given its expected entry into a crowded market of immuno-oncology agents by identifying key segments in the market.

We opted for a model-based Latent Class Segmentation, which is a finite mixed probabilistic model. For each survey respondent, the analysis delivers the probability of belonging to each cluster (segment). Respondents are assigned to the cluster to which they have the highest probability of belonging.¹ We iterated over couple of iterations before finalizing the model. Based on the statistics, the optimal number of clusters were selected.

Outcome

The findings of the survey helped the client to understand the profiles of HCPs who are most likely to try and adopt the drug by assessing their prescribing behaviour, practice characteristics, demographics, among other factors.