



CASE STUDY

Direct Marketing Association’s Analytical Challenge to Maximize Profit for Direct Marketing Campaign

Objective:

The Direct Marketing Association’s Analytical Challenge was a competition to develop the most profitable targeting solution for a direct mail acquisition program based on past mailing history. Each competing company had access to over 300 demographic attributes with identical training data sets and would be judged on an independent data sample.

DataLab’s Approach:

We strived to replicate our best practices and turnaround time we typically offer our clients. Within 24 hours, we completed the development of our baseline model, which is crucial for the following:

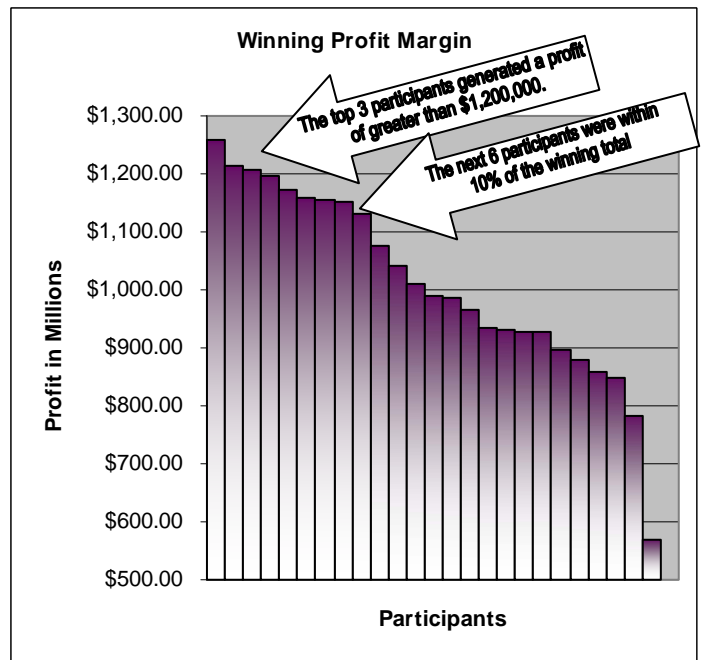
1. Identifying homogenous data elements and populations that would benefit from specialized expert models.
2. Determining the data elements that would experience the greatest improvements from advanced (time consuming) data transformations, such as modeled missing value imputations.
3. Establishing the best technique to target profit; predicting the profit drivers (response and default) individually with a two stage approach exhibited gains over multinomial or direct techniques.

Over the following three days, DataLab developed a series of sub-models targeting the response and default outcomes, which drove profit. Each of these sub-models was developed as an expert of a specific group of related variables, or of a homogenous population. These were developed independently of one another utilizing separate data sampling, fit parameters and variable selection.

On the last day of development, the final “Expert of Experts” model was created. The model was built utilizing the individual sub-models as independent variables, and explicitly targeted profit at a 25% depth of file. This “Expert of Experts” approach was able to take the best from each of the expert sub-models producing discrimination that was unattainable through the use of a single model.

Results:

On an independent sample of data, DataLab’s model identified \$1,260,000 of profit at a 25% depth of file; which was enough to earn us 1st place out of a field of 26 corporate participants. The result represented an incremental improvement of 5% over the company earning 2nd place, and a staggering 27% incremental lift over the average result. DataLab won by the largest margin in the history of this competition.



DATALAB USA
 20261 Goldenrod Lane
 Germantown, MD 20876
 Phone: 800.972.1430
 Email: info@datalabusa.com