Case Study: DecisivEdge Develops Market Response Model for Marketing Firm

CHALLENGE

A national marketing firm wanted to design a new response model for a personal loan marketing campaign that would outperform the existing model, leading to increased response rates and higher booked loans. The following list of business objectives were established to meet project expectations and ensure optimized model development:

- Narrow target population by agreeing on policy guidelines to exclude specific demographics from receiving marketing messages.

- Build new market response market a new model and develop a scorecard metric that scores the willingness and ability of each customer to book a personal loan.

- Create a swap set analysis tool to show that the new metric outperforms the existing metric at all relevant score thresholds.

SOLUTION

The data science team at DecisivEdge used its model-building experience and financial domain knowledge to develop a list of recommended policy guidelines, a new response model and scorecard metric, and a swap set analysis tool that would give the client flexibility in deciding the target population for their campaigns. The team applied its business experience, working with the client to develop a list of recommended policy guidelines to target desirable prospects. These policies are based on industry standards and include:

- Current Delinquencies
- Charge-Off
- Bankruptcy
- Frequency of Trades
- Duration of Trades
- Risk Filters (FICO/Vantage)

To develop the response model and new scorecard metric, DecisivEdge used industry experience and a variety of statistical techniques to identify variables that best predict whether someone would book a personal loan. These statistical techniques include, but are not limited to:

- Weight of Evidence
- Information Value
- Variable Clustering
- Logistic Regression

DecisivEdge then cross-tabulated the new and old metrics, which were calculated on a sample data set, to develop the swap set analysis tool. Customizable filters for FICO score and revolving trade quantity were also built into the tool to help the client determine an optimal mail campaign for their target population.

RESULTS

DecisivEdge tested the performance of the new model using KS, Lift, and swap set analyses, each of which confirmed that the new model outperformed the old model by a wide margin.

- The new model had a KS statistic of 50.12% for the out-of-time data set, a significant improvement over the old model, which had a KS of 26.37% for the same data set.

- The Lift of the new model for the out-of-time data was 4.86, almost double that of the old model, which had a Lift of 2.84 for the same data set.

- Using swap set analysis, it was determined that the top decile of prospects selected using the new model had a booked rate of 2.25%, compared to a 1.16% booked rate for the top decile of prospects selected using the old model.

DecisivEdge presented the client with the new model, which they agreed was outperforming the old model. The new model is currently awaiting implementation in future campaigns.

ABOUT DECISIVEDGE

DecisivEdge leads organizations through their transformation journey. We believe that the right mix of people, processes, and technology will drive modernization, business optimization and automation. To learn more, please visit our website at **www.decisivedge.com**, email us at **getresults@decisivedge.com** or contact us at **302.299.1570**.