

Predicting Returns from the Use of Data Mining to Support CRM

The number of firms that have successfully used data mining tools to support CRM efforts is growing. However, quantification of the returns to these efforts is hampered by the relatively small numbers of organizations who have had such efforts in place for a sufficient time to assess results, by difficulties in sorting out the causes of changes in customer response, and by the natural reticence of companies to publicly disclose this strategic information. Because of these limitations, it is not possible to establish a “typical” return to the use of data mining tools in the CRM arena. Nevertheless, a number of firms have been willing to describe in quantitative terms, results they have achieved and these results provide a picture of the type of results that might be expected from the application of data mining tools to CRM issues. A few recent examples are summarized below.

Recently SAS institute provided CRM services to Sprint with emphasis on reducing churn. Sprint officials reported “requests for information that used to take weeks to process are now completed in hours. Customer Retention and up-selling are measurably higher. In addition, Sprint has already (in the first few months) saved more than \$1 million in processing costs.” (www.sas.com/news/preleases/042301/news3.html)

Bank of America identified savings of \$4.8 million in two years (a 400 percent return on investment) from use of a credit risk management system provided by SAS institute consultants and based on statistical and data mining analytics. This model was used to allow Bank of America to find eligible low-income and minority customers to ensure B of A’s compliance with the Fair Housing Act. (www.sas.com/news/success/bankofamerica.html)

Liverpool Victoria, an English firm providing financial services to over 2 million customers, has used Quadstone’s OLAP and data mining technology for campaign management and customer retention efforts. Early results have included “increasing the response from a campaign by 35 percent.” A senior database marketing analyst at Liverpool Victoria noted that with appropriate use of this technology “I have the opportunity to combine my business instincts with the realities of the data.” (www.quadstone.com/customer/studies/Liverpool.html)

Customerlinx, a knowledge-based marketing services company providing customer-tailored marketing programs, has used Quadstone technology to improve the speed of in-campaign modeling. “It used to take us between 3 and 4 weeks to accurately profile a customer. Quadstone takes the time down to 4-5 days. ... the quick turnaround time is great and allows us to focus on profitable customers.” (www.quadstone.com/customer/studies/Linx.html)

BMG Direct has used the SAS solution for CRM in an effort to improve customer loyalty. A BMG executive indicates: “We have significantly improved our performance goals with the telemarketing programs’ response rates rising from 30 percent to more than 50 percent.” (www.sas.com/news/feature/28may01/dmreview.html)

The results cited here relate to specific vendors and systems involving much more than just data mining tools. They are, however representative of the types of returns that can be achieved from CRM related systems built around data-mining analytics.

The CDI itself does not have a basis for estimating dollar returns to the customers for which it has provided CRM related analytics. We do have anecdotal evidence in the form of both return engagements and actions taken as a result of engagements that suggests that clients have achieved valuable actionable results from projects completed here. While the data required to rigorously identify costs savings or revenue enhancements from a data mining project are rarely available, it is often relatively easy to establish the gain from using data mining as compared to a making decisions with no information.

In identification of “best customers” we have typically found that a cluster of 20 percent or so of customers can be identified which account for 80 percent or more of sales and/or profitability. In models designed to identify the “best” half of customers we have been able to build models that are 80 to 93 percent successful. That is, the odds of identifying a good customer have been increased from a 50-50 guess to an accuracy of, as much as, 93 percent.

Another type of problem frequently associated with CRM is identification of defaulting customers. A recent study of this type by the CDI was able to produce a measure that successfully flagged over 80 percent of those who actually defaulted as defaulters, while flagging less than 20 percent of non-defaulters. In other words, Over eighty percent of the target group was be found within only 20 percent of the customer population. This type of identification is similar to the problem of identifying the set of customers most likely to respond to a particular marketing campaign.

The values cited above are fairly typical examples of the ability of data mining analytic models to identify target groups that are frequently important in CRM. As one would expect, results will vary depending upon characteristics of the customer base and the adequacy of the available data. Where measures of the selectivity of current customer identification techniques are available and costs customer treatments are known, the measures above can be used to produce approximations of the returns that might be expected from a successfully data-mining based analytic project.