Customer Data Mining and Predictive Modeling Tools:

**More Accurate Churn Prediction:** We used a new Predictive Clustering method to predict which customers are most likely to churn based on recent product-purchase patterns, account age and size, and demographics. The predictions were far more accurate than those from previous (logistic regression, neural net, and business rule) models, achieving more than twice the lift in predicting the 10% of customers who were most likely to churn.

**Better Targeting and Revenue Delivery:** Cox Associates’ Predictive Clustering technology was used to quantify the probability that each of several million customers would purchase each of a company’s products (as well as selected product combinations) in the next 3 months. More accurate targeting based on these predictions quickly led to a 15% increase in revenues in an in-market trial.

**Tracking Impacts of Advertising:** We applied the Predictive Clustering methodology in conjunction with survey data on ad awareness and Competitrack data on competitor advertising to quantify the impact on customer loyalty and purchasing habits of individual advertising campaigns in specific markets and to identify strategies for more effective advertising.

**Service Improvement Planning:** Predictive Clustering was also used to quantify the total impact on customer loyalty and revenues of alternative proposed service improvements. The resulting causal model was based in part on Customer Satisfaction survey data validated and refined using several years of actual customer behavior data. In contrast to previous, overly optimistic and insufficiently precise regression models, the Cox Associates predictive models clearly distinguished the expected causal impacts of changes in service metrics on customer behaviors.

**Business Simulation:** Our Predictive Clustering technology has been included in business simulation models that provide fully integrated models of marketing, engineering, and operations and their financial impacts in new businesses. Such models include high-level models of subscriber purchasing behavior; predicted effects of pricing, advertising, and competition on market share and average revenue per subscriber; and relative costs and performance associated with different network engineering choices and build schedules. Reduce by over 50% the time to create and run financial and strategic scenarios. Improve planning validity and consistency. Help planners to focus on what can be controlled instead of on what has been assumed.