XO Communications takes control of customer satisfaction

Using predictive analytics to embed a deeper understanding of customers into operations

Smart is...

Proactively identifying customer churn risks and providing customer care teams with the insight they need to enhance service levels.

XO Communications had already taken the first steps in identifying customer retention risks through analytics; now it wanted to seize the opportunity to put these insights into action more effectively. By using IBM® SPSS® solutions to hone its predictive models, the company built a richer, more up-to-date picture of its client base and began delivering this data to a greater range of employees.

It is easy for organizations to get too wrapped up in serving their very largest clients. But how can you ensure that smaller customers don't fall through the cracks?

The answer: tapping the stream of customer information that flows into your business, and putting it to work. For XO Communications, a company already well equipped to predict customer churn, the challenge was to understand more about the reasons behind retention risks and place this insight into the hands of a greater range of employees.

Setting the scene

XO Communications is one of the United States' largest communications service providers, offering a comprehensive portfolio of communications, network and hosted IT services through a 19,000- mile nationwide inter-city network and over 1,000 office locations. Priding itself on superior customer experience, the company is always looking for ways to raise the bar.

Bill Helmrath, Director of Business Intelligence at XO Communications says: "To XO Communications, every customer counts, regardless of size. It is vital for us to have a better understanding of our customers than our competitors do, so we cannot rest on our laurels. We need to keep finding new ways to capture customer information and use it more effectively."

Cris Payne, Senior Manager of Customer Intelligence Strategic Marketing adds: "For several years, we have been using IBM SPSS software for to study the factors leading to customer churn. The next step was to develop our understanding of each customer further, and embed these learnings into our everyday operations. Ultimately, we hoped to move towards supporting our customers in a more proactive way than ever before."

Business benefits

- 142 percent estimated reduction in revenue erosion for customers at most risk of churning.

- $10 million+ estimated savings per year from increased customer retention and reduced customer service costs.

- 5 months to achieve full return on investment.

The company was able to witness the impact that predictive modeling can have on customer retention rates at first hand when it briefly shifted its focus to other areas, as Bill Helmrath explains: "We had a period where we moved away from using predictive scores to identify potential retention risks and saw the a negative effect on churn levels immediately. For us, this proved the value of predictive analytics and showed us that it was the right place to invest more resources."

Filling in the detail

The XO Communications Business Intelligence team embarked on a campaign to build a more robust process around churn analytics. The team began by using IBM SPSS Modeler to build a second generation of its churn model that incorporates additional variables and delivers more accurate results than the original. By helping to effectively and efficiently identify useful variables, SPSS Modeler enabled the team to increase the number of variables it was studying by 400 percent, from 150 to 750, and think smarter about finding the needle in the "big data haystack".

Using the new model, XO Communications can provide richer information to employees across the organization, offering a more complete picture of each customer's situation. The company also moved from monthly to weekly analyses, ensuring that it has a more up-to-date view of customers and helping to drive higher-quality business decision-making.

Cris Payne elaborates: "When you start out on any analytics journey, it's natural for the results to mean a lot to the business intelligence team, but maybe not so much to others! We realized that to transform insight into action, we needed to equip employees with information that was meaningful to them.

Smarter communications: deeper insight into retention

Instrumented
Data about every aspect of XO Communications' relationships with its customers is gathered from sales, CRM and customer care systems, and external data sources.

Interconnected
Predictive models generate a "churn score" for each customer. Current scores and trend data are automatically integrated into a customer information pack and sent to customer care reps.

Intelligent
Accurate churn predictions enable customer care reps to intervene proactively with customers who have the greatest risk of churning – helping to resolve issues quickly, improve service levels, and ultimately increase the retention rate.

Solution components

Software

- IBM® SPSS® Analytics Catalyst
- IBM SPSS Modeler
- IBM SPSS Modeler Server
- IBM SPSS Statistics
- IBM InfoSphere® BigInsights™

"IBM SPSS Analytics Catalyst is ideal for quick, ad-hoc analyses, and because we can display the results as visually appealing graphs that are easy to understand, it helps us bring analytics to a new audience among our employees."

— Bill Helmrath, Director of Business Intelligence, XO Communications

"By delivering churn scores as part of a pack of data on each customer, we can put information on their likelihood to churn into the context of other factors such as whether the risk is increasing or decreasing, their purchase history and what recent interactions we have had with them. This means our customer care representatives understand the whole customer situation and are more likely to identify proactive ways to raise satisfaction."

Using new tools

XO Communications has also begun exploring the use of additional tools from the IBM Business Analytics portfolio. For example, by using IBM SPSS Analytics Catalyst to look at large datasets, uncover statistically interesting relationships between variables and present them in an intuitive way, the company is finding ways to make the results from analytics more user-friendly.

"IBM SPSS Analytics Catalyst is ideal for quick, ad-hoc analyses, and because we can display the results as visually appealing graphs that are easy to understand, it helps us bring analytics to a new audience among our employees," comments Bill Helmrath. "For example, just recently we had a real 'wow' moment when we showed one of our executives the graphical output of an analysis. He was really impressed because it gave him a new understanding of how our different customer care activities affect each other."

The company is also exploring the use of solutions including IBM InfoSphere® BigInsights™ and IBM SPSS Decision Management software.

Designed to help companies get a handle on the huge amounts of data flooding into their systems every day, InfoSphere BigInsights will help XO Communications perform text analytics of customer feedback and customer service records – the results of which can then be used to enrich its customer retention model even further. With XO Communications estimating that there are between 300 and 400 variables influencing retention, InfoSphere BigInsights could prove a valuable tool to help the company stay on top of escalating amounts of data as it strives to incorporate new information into its predictive models.

Meanwhile, SPSS Decision Management could help XO Communications develop business rules that utilize the scores generated by its predictive models and automatically suggest the best next action to customer care representatives.

> *"We are only just starting to realize the true potential that IBM analytics holds across the business."*

— Bill Helmrath, Director of Business Intelligence, XO Communications

"As we delve deeper into the IBM Business Analytics portfolio, we keep discovering new ways to extract valuable insights from the masses of customer data available to us," says Cris Payne. "By feeding text analytics data into our churn model we expect to be able to make even more accurate predictions, while the introduction of business rules should encourage a more consistent customer service experience."

Seeing the impact

XO Communications' investment in IBM SPSS software had already been fully justified by the success of its first-generation customer retention model, which reduced churn among smaller customers by eight percent in the first year of deployment and a further 18 percent in year two. The ability to identify which customers were in most need of support also enabled XO Communications to serve twice as many customers as before without increasing the level of resourcing in its customer care team. The resulting cost-benefits were estimated at savings of $3.8 million per year, which meant that the SPSS Modeler project delivered a full return on investment within just five months.

The second-generation model is set to extend these benefits further – with an estimated decrease of 142 percent in revenue erosion for the top 20 percent of customers at risk of churning compared to a control group. If this figure proves accurate, this will translate into an annual saving of more than $10 million.

Moving into new areas

The success of the analytics team in keeping a lid on churn has led to a growing demand for predictive modeling in other parts of the business. For example, XO Communications is exploring the use of predictive models to identify opportunities for up- and cross-selling based on a customer's purchase history and the behavior of other customers with a similar profile.

"We are only just starting to realize the true potential that IBM analytics holds across the business," says Bill Helmrath. "For instance, our marketing division is beginning to take a real interest in what we do. They want to investigate the relative impact and success of different email campaigns - what make people open particular emails? How can we tailor our campaigns to different customer groups? This could help us use our marketing budgets more effectively, ensuring that we make all interactions with our customers as positive as possible – both for us and for them."

"As the value of the results we get rise, we see more and more employees demanding more up-to-date analyses, showing the increasingly significant role IBM analytics plays in our day-to-day operations."
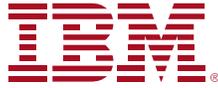
— Cris Payne, Senior Manager of Customer Intelligence Strategic Marketing, XO Communications

Cris Payne concludes: "While we have already realized some great benefits, we are most excited about the fact that this is only the start of our journey with business analytics. With powerful IBM software on our side, we are confident that we will continue to hone our predictive models so that they can yield even more fascinating insights to help us serve our customers better.

"The further we can push our predictive horizons, and the more accurate our models become, the more proactive we can be about addressing issues – keeping customer satisfaction levels as high as possible. As the value of the results we get rise, we see more and more employees demanding more up-to-date analyses, showing the increasingly significant role IBM analytics plays in our day-to-day operations."

About IBM Business Analytics

IBM Business Analytics software delivers data-driven insights that help organizations work smarter and outperform their peers. This comprehensive portfolio includes solutions for business intelligence, predictive analytics and decision management, performance management, and risk management.

Business Analytics solutions enable companies to identify and visualize trends and patterns in areas, such as customer analytics, that can have a profound effect on business performance. They can compare scenarios, anticipate potential threats and opportunities, better plan, budget and forecast resources, balance risks against expected returns and work to meet regulatory requirements. By making analytics widely available, organizations can align tactical and strategic decision-making to achieve business goals.

For more information

For further information please visit **ibm.com**/business-analytics