Predicting customer churn to drive retention measures

Business objective
Customer Experience & Loyalty
Sector
Bank and Insurance

Context & objectives

A **specialized insurance company serving Belgium and the Netherlands** was experiencing a +9% percent customer churn rate, causing hundreds of millions of euros in losses each year. They turned to Agilytic to understand churn drivers and design proactive retention measures.

Obtaining accurate customer insight was crucial for the insurer to allocate acquisition and retention resources better. Therefore, we determined which policy features and customer features would signal churn risk through data transformation, cleaning, descriptive analysis, and modeling.

Approach

We worked together with the marketing and sales teams to maximize the relevance of the outcomes. We worked from a Milestones Roadmap to dive deep into the data and bring more precise insights.

First, we began with Data Consolidation, which comprises data transformation work and data cleaning. This involved gathering data from eight sources holding client information, policy details, insurance product details, payment frequency by policy, and other premium information to use as a basis for churn prediction.

We followed steps to clean the data for the outcome we aimed to achieve, i.e., defining the target outcome, removing unnecessary columns, and correcting or removing missing information. For data transformation, we calculated 'delta days' between contract opening date and end date (customer tenure), deriving the churn dates and campaign start dates to evaluate if there would be insightful information. This is just one example of many derived features we created in the transformation. Main figures were reviewed and validated with the business to ensure data had been interpreted correctly.

After this initial data collection and audit phase, we moved on to descriptive analysis. We performed a Data Analysis with the TIMi data interpretation tool to present data to the client in a clear, practical way with easy-to-comprehend visualizations.

We then built a predictive model to identify the core churn drivers and then score the churn propensity of existing customers. Our initial scope involved over 280 variables, of which 11 significant variables were kept in the final model. TIMi allowed us to get accurate and easy-to-interpret results in a record time as a tool perfectly suited for this kind of analysis.

Finally, we delivered workshops to help in-house teams improve data literacy and take ownership of our model. We provided the project's output through a Powerpoint (to offer essential data insights and visualizations), Excel Files for simulating propensity to leave based on the 11 identified features, a TIMi Data Audit report, and further explanatory documentation on the model building.

Results

Our model allowed the client to **identify twice the amount of churners than the client could identify prior to working with Agilytic**. We also helped our client setting up **proactive retention measures** such as re-packaging products to better meet customer needs due to our insights about churn drivers.

Most importantly, we saw that the two most critical predictor is the broker involved, not linked with portfolio size. **Churn was higher for brokers and lowest for direct channels**. The type of insurance product was also a significant predictor.

Secondly, in contrast to initial belief on the client's part, we saw that there was **no apparent link between communication and churn**. The average number of days between the start of a communication campaign and the end date of communication is similar for churners and non-churners over time. If there is churn, it is usually between three and six months after the start of the campaign.

Additionally, we observed a **churn peak in September and the end of the year**. We found most churn appeared on half-yearly payment plans, that the churn rate decreases as the holder's age increases, and unique payments schedules and automatic payments performed well in regards to showing lower churn.

Thanks to the data analysis and modeling, the client can now see **improvements in customer churn as a result of being able to make smarter decisions** around coordinating commercialization efforts. After completing the project in **less than 30 days,** the client quickly understood the necessary subsequent actions to **increase its customer retention and commercial potential**.

About Agilytic

Since 2015, Agilytic helps innovative leaders solve their biggest challenges through the smarter use of data. With over 150 successful projects to date, we have perfected a pragmatic approach to putting data at the service of business goals, be they commercial, operational, financial, or human. Reach out today for a quick introduction, we'd love to hear from you.