Modelling Customer Churn

Executive summary
This project explored the main factors affecting customer churn in AXA Winterthur through the development of predictive models. Identifying these factors is a first important step to retain customers, and more efficiently maintain market share.

Challenge Overview
AXA Winterthur is a branch of the AXA group in Switzerland that is responsible for running the largest portfolio of insurance policies in the country. Maintaining share in saturated markets like the traditional 150-year-old Swiss insurance industry can reach very high costs when it is based mostly on acquisition. To optimize the use of resources, the company needed a better understanding of customer churn.

The Problem
The term churn refers to customers abandoning or reducing their relationship with a service provider. In AXA Winterthur it represents the largest driver affecting annual premium revenue. Yet, it can be broken into different levels and reasons. So, to be correctly managed, churn that can be avoided, and should be avoided needs to be distinguished from the rest. That will allow focusing on what is meaningful from the business perspective. However, most of this churn is based in customer’s choice. Understanding the factors behind this decision is not feasible and does not help to anticipate the problem as this sort of information is difficult to attain specially at customer level.

Relying on existing data to understand this behaviour facilitates implementation of future strategies. Still, the volume and complexity of data available in the company represents a big challenge to more simple analyses.

The Solution
Through the assessment and development of predictive models the effect that most variables available in the company have on churn rates was studied. Diverse variable selection and modelling techniques allowed identifying the most relevant factors driving customer churn among the variables that were studied. Then, the most important factors were studied in detail allowing deeper insight on how they were affecting customer churn.

Results and achievements
The following findings and recommendations to manage customer churn in accord with core business objectives were presented in the HQ in Winterthur, Switzerland:

- Although existing old models were verified to be still performing, their use is only recommended with reservations;
- Avoidable churn was distinguished from the rest of churn allowing to focus on what is relevant for the business. Classifying churn according to this distinction was also recommend to allow following trends, and defining and assessing the retention strategy;
- The use of simple criteria based on the most relevant factors driving churn were recommended for use in different actions.