Capstone Two: Project Proposal

Problem statement formation:

What opportunities exist for the bank to improve its credit card users retention rate through predicting churning customers, thus changing their decision by proactively providing them with better services.

Context

Credit card churning is a common problem since many card issuers offer attractive sign-up bonuses and rewards to get consumers to apply for new cards and spend a large amount right after account opening. The bank experienced an increasing number of customers leaving their credit card services. Management wants to identify what are the indicators that card users are about to get churned in order to proactively approach them with improved services and reverse their decisions.

Criteria for success

The model can successfully predict 80% of churning customers.

Credit card customer retention rate is improved by 10%.

Scope of solution space

An exploratory data analysis will be conducted on both existing and churning customers to identify specific features that are strongly correlated with each type of customers. After that, a model will be used to search for the most important factors that result in customer leaving. Finally, we will train a model with the best indicators to predict churning customers.

A project report and slide deck will be prepared and provided to the management level to present our findings and model in predicting churning customers. Management can utilize the model to predict future churning customers and take actions to turn customers' decisions in the opposite direction.

Constraints

Only 16% of customers, which are about 1,600 were churned in the data set. This may affect the accuracy of training the model to predict churning customers.

Stakeholders

Vice President of Credit Cards department

Customer Service Manager of Credit Cards department

Database Manager

Data sources

BankChurners dataset consists of 10,000 customers mentioning their age, salary, marital status, education level, credit card limit, credit card category, inactive months, revolving balance, etc. There are nearly 18 features.

The dataset was obtained from kaggle.