Customer Churn Evaluator

Tian Fu June 3, 2019

MOTIVATION

BY PREDICTING THE PROBABILITY THAT A CUSTOMER WILL CHURN, THIS APP HELPS Ti BANK TO:

- Have a better understanding of its customers and factors impacting their retention
- Evaluate opportunities for marketing and product improvements
- Ultimately enhance customer retention and engagement

DEMO

DATA

- Obtained from Kaggle
- Account and demographic information on 10000 customers
- 70%-30% train-test split
- Target Variable: whether the customer has churned

Predictors

- Age
- Whether the customer is an active member
- Number of bank products the customer is using
- Gender
- Country
- Balance on account
- Whether the customer has a credit card
- Tenure

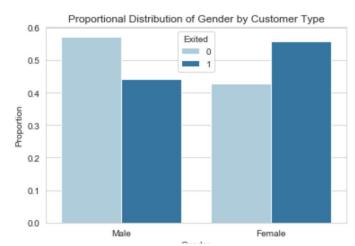
MODEL - XGBoost Classifier

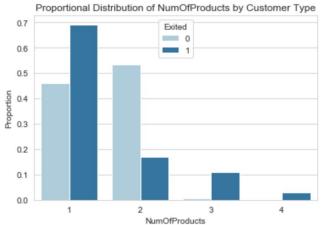
- Success Criteria: AUC > 0.7
- Test accuracy: 87%
- Test AUC: 0.869
- False negatives(predicted to stay but actually churned) are more costly than false positives since the bank will lose customers.

INSIGHT FROM DATA

Surprisingly, a higher percent of females churned and churned customers had tried a variety of products.

Maybe the bank's credit card or rewards program do not offer good cash back on shopping and dining?





THANK YOU!

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