Customer churn for any company is expensive but it is especially expensive in the customer service area. The financial and insurance sector has a large amount of competition and with new digital only institutions coming into the area the amount of competition has only grown. The biggest reason sighted for leaving a bank was “poor service” and high fees. The high fees are a profit and loss question and each institution tries to show is value. The Poor service was the driver for 56% of the individuals that changed banks (Reducing customer churn for banks and financial Institution). Financial institutions and insurance companies struggle with customer churn as the institutions do not usually see the customer leaving before they have closed all their account and left. Normally never getting a chance to try and attempt to retain the customer.

It is important for service companies to understanding how to predict customer churn and identify those customers before they leave. Usually high value customers are easy to find and resolve but the middle to lower value customers need to be identified. The longer a person stays with a company the more likelihood of them being a profitable customer this increase customer lifetime value (CLTV). In our analysis we ran a some linear regression models and visualized our input data to help determine what key inputs would help in determine correct traits and demographic information to use to better understand what customer are good candidates for preventive attrition.

**Short version for poster:**

Customer churn in the financial and insurance sector is high. Companies struggle to identify customers who are likely to leave before they have left. Surveys are not frequent enough and a bad service might not show up on a survey. To increase customer lifetime value (CLTV) banks need to understand the correct behavioral attributes, build correct predictive models using new and traditional data science techniques like k-means or spatio-temporal (Behavioral attributes and financial churn prediction). This helps in selecting the correct behavioral traits based on transactions and other demographic behaviors to identify customer churn and determine if a customer is a good candidate to be retained.

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