PowerCo Churn Solution

Major gas and electricity utility, supplies to corporate, SME & Customers.

Problem Description

Why Customers leaving the company:

1. High charges.
2. Poor Customer Service.
3. Better offer from a competitor.
4. Other reasons.

Generated Hypothesis:

Customers are Price sensitive so, increase in discount rate might lower down the churn rate. 20% discount will decreasethe customer churn rate.

How to detect The customer Churn:

1. Monitoring customer usage.
2. January to march customer churn rate.
3. Analysing Competitor offers.

Method used:

From 3 months data customer churn can be calculated and relevant solution will be generated after analysing Data.

How To prevent Customers from leaving the company:

1. Increase the Discount rate upto 20% as per the SME.
2. Improve Customer Service.

Problem Evaluation:

Its The Data Science Problem.
From the predictive analysis and Machine Learning Customer Churn reasons can be generated and it can be estimated that 20% discount lead to lower down customer churn.

Data Driven Steps:

1. Binary Classification Problem
2. Data Collection:

   Required Features: Customers Purchasing Data + Price Data so as to apply Exploratory data Analysis.

3. Feature Engineering: To clean the data, scale and validate the data so as to make it ML ready.
4. Building ML Model: Classification Models can be used Logistic regression, Random Forest, Xgboost or ANN.
5. Hypothesis Checking & Strategy To decrease the churn.

Conclusion

1. Forecasted/Estimated electricity consumption says more churning will happen in next year in electricity consumption.
2. Less Churning Of clients in Gas industry as compared to electricity.
3. In churning distributions it seems that there is some period comes where more customers are churning... it could be becoz of others companies could be increasing the discount rates.
4. Increase in no of prices halved the churning rate, almost approached rate of churning.
5. Discount affects the churn rate.
6. Data is Highly skewed/positively skewed must be scaled before model building
7. Feature Selection is essential to remove multicollinearity between the features.

Suggestions:

1. Competitor price data - perhaps a client is more likely to churn if a competitor has a good offer available?
2. Average Utilities prices across the country - if PowerCo's prices are way above or below the country average, will a client be likely to churn?
3. Client feedback - a track record of any complaints, calls or feedback provided by the client to PowerCo might reveal if a client is likely to churn