

Executive Summary

Problem:

- Powerco is experiencing customer churn, and they suspect it might be due to customers being sensitive to prices. To address this, they are considering offering a 20% discount to customers who are at high risk of leaving as a potential solution.

Machine Learning Modelling:

- Following data cleaning, exploratory data analysis, and feature engineering, I used a Random Forest Classifier to predict the likelihood of customers churning. The model achieved a test set accuracy of 0.90 and a precision score of 0.91.

Insights:

- Churn rate is approximately 9.7%
- Net margin on power subscription and consumption over the last 12 months is a significant factor for churn
- The forecasted bill for meter rental over the next 2 months is also an influential factor for churn
- Time-related factors such as the number of months of activity, tenure, and contract update frequency are significant drivers for churn.