

Executive Summary

Situation:

- Powerco has a problem with customer churn; they believe it is caused by customers' price sensitivities. One possible solution is to provide **20%** off to customers who are most likely to start leaving.

Machine Learning Modeling:

- After Data cleaning, EDA and Feature engineering, I applied Random Forest Classifier. Random Forest Classifier model has been built to predict customers' churn probability, achieving an accuracy of **0.90** and Precision score of **0.91** on test set.

Insights:

- Nearly **10% (9.7%)** of the customers have churned and **90%** of the customers have not churned.
- About **80%** of customers subscribed to only one product.
- Most customers has spent **6** years with their service provider.
- Customers were not sensitive to price, as changes in price did not affect churn.
- Offering a discount to the predicted churning customers can increase the expected profit from these customers.