31 October 2023 Executive Summary - Manuel Ardizio Data Science Team (DST)

EXECUTIVE SUMMARY

Data-Driven Insights for Churn Prediction

Situation

- Customer - PowerCo UTILITIES INDUSTRY that supplies Corporates, SME and residentials
- Problem – Significant Churn problem among SME customers
- Client Hypothesis - Predicting customers likely to churn using a ML model.

Complication

- Given PowerCo's dataset BGX.X explored the connection between churn and price sensitivity (HP_1). We also engineered new features to improve our predictive model.

Feature Engineering and ML Model

- The Data Science Team developed a pipeline to test a predictive model using supervised learning with a RandomForestClassifier for binary classification.

Results

- The ML model attains an 89.9% accuracy after hyperparameter tuning during prediction tasks, with room for performance improvement.

Next Steps

- To enhance the model's performance, we will explore different classification algorithms, improve feature engineering, collect additional data, and address class imbalance.