Telecom Churn Case Study(Machine learning)

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Problem Statement

Business problem overview

. In the telecom industry, customers are able to choose from multiple service providers and actively switch from one operator to another. In this highly competitive market, the telecommunications industry experiences an average of 15-25% annual churn rate. Given the fact that it costs 5-10 times more to acquire a new customer than to retain an existing one, customer retention has now become even more important than customer acquisition.

. For many incumbent operators, retaining high profitable customers is the number one business goal.

. To reduce customer churn, telecom companies need to predict which customers are at high risk of churn.

. In this project, we will analyse customer-level data of a leading telecom firm, build predictive models to identify customers at high risk of churn and identify the main indicators of churn.

Steps to Approach The Solution For This Case Study

Step 1 :
. Data reading
. Data Understanding
. Data Cleaning
Imputing missing values
Step-2 :
Need to Filter high value customers
Step-3 :
Derive churn
need to Derive the Target Variable
Step-4 :
Data Preparation
.Derived variable
.EDA
.Split data in to train and test sets
.Performing Scaling

Step-5 :
. Handle class imbalance
. Dimensionality Reduction using PCA
.Classification models to predict Churn (Use various Models)
Step-6 :
.Model Evaluation
.Prepare Model for Predictor variables selection (Prepare multiple models & choose the best one)

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