

ORIE 4741: Project Proposal

Predicting and preventing customer churn for big Telecom Company

Mansi Agarwal (ma996), Sukriti Sudhakar (ss2742)

October 4, 2020

1 Background

Customer churn is the measure of the number of customer lost by a business. We are analyzing the Call Detail Record (CDR) of the customers of a telco operator and predicting the possible customer churn that can happen in the future, this will help the company understand it's potential revenue loss in the coming time. Further, we will prevent the churning by finding its causes for example frequent call drops, bad network coverage, etc. This will work as a performance monitoring system for the company and help them to improve their services further and prevent the loss of revenue due to customer churn.

2 Question

What are the trends and the factors affecting the customer churn in telecom industry?

3 Why is it important?

Analysing and understanding the patterns in customer churn is extremely important for any business. By understanding the reasons for customer churn, a business will be able to better realize the shortcomings of its program and work on rectifying them. It will help save businesses a lot of revenue, money spent on marketing to find new customers, and the investment done initially on gaining the lost customer.

4 Datasets

The data sets used includes customers who left, services that each customer has signed up for, customer account information, and demographic info about customers.

Telecom CDR Dataset([link](#))

Mobile phone activity([link](#))

5 Reference

<https://www.optimove.com/resources/learning-center/customer-churn-prediction-and-prevention>

<https://journalofbigdata.springeropen.com/articles/10.1186/s40537-019-0191-6>