**Summary**

**Telecom-Churn-Analysis**

Customer churn refers to when a customer (player, subscriber, user, etc.) ceases his or

her relationship with a company. Businesses typically treat a customer as churned once a

particular amount of time has elapsed since the customer’s last interaction with the site or

service. The full cost of customer churn includes both lost revenue and the marketing

costs involved with replacing those customers with new ones. Reduction customer churn

is important because cost of acquiring a new customer is higher than retaining an existing

one. Reducing customer churn is a key business goal of every business. This case is

related to telecom industry where particular organizations want to know that for given

certain parameters whether a person will churn or not.

### Exploratory Data Analysis

Our target variable has two categories which include True and False values.

True = Customer will move or churn out.

False = Customer won’t move

We can clearly see that our data is highly imbalanced. The occurrence of false

is higher than True. There are 2850 (85.51% ) customers who churn out and 483 (14.49%)

customers retained.

**Area Wise Churn Analysis**

Most of the churned customers are from 415 area.

**Churn according to International Plan**

Churn rate is more with customer using international plan. As only 323 customer

using International plan and 137 churning out of them.

**Churn according to Voicemail Plan**

922 customer using voice mail plan and 80 out of them are churning

**Churn according to Customer Care Calls**

Churn rate for Customer neither having voicemail plan nor international plan is

9.06%. Churning rate for customer having International plan but don’t have voicemail plan is

3.03% out of 6.93% customers. Churning of customer having both voicemail plan & international plan is 1.08% out of

2.76%

**Collinear Plot**

‘Total day minutes’ and ‘total day charges’ are highly correlated

‘Total eve minutes’ and ‘total eve charges’ are highly correlated

‘Total night minutes’ and ‘total night charges’ are highly correlated

‘Total intl minutes’ and ‘total intl charges’ are highly correlated