SUMMARY

With the rapid development of telecommunication industry, the service providers are inclined more towards expansion of the subscriber base. To meet the need of surviving in the competitive environment, the retention of existing customers have become a huge challenge. In the survey done in the Telecom industry, it is stated that the cost of acquiring a new customer is far more than retaining the existing one. Therefore, by collecting knowledge from the telecom industries can help in predicting the association of the customers as whether or not they will leave the company. The required action needs to be undertaken by the telecom industries in order to initiate the acquisition of their associated customers for making their market value stagnant. Our paper proposes a new framework for the churn prediction model and implements it using the WEKA Data Mining software. The efficiency and the performance of Decision tree and Logistic regression techniques have been compared.

Task:-

In this project ,we are working on the customer churn dataset of Orange S.A., formerly known as France Telecom S.A. here we are analysing customer churn and we will be doing a complete EDA process to determine if the customer from Orange S.A. company will cancelled the subscription of the telecom service or not. we will also draw some insights from data visualization and analysis so that we could get the factors which are affect the output(churn of the customer)

What is the meaning of Customer Churn in Detail:-

Customer attrition, also known as customer churn, customer turnover, or costumer defection, is the loss of clients or costumers. Telephone1 service companies, internet service providers, pay TV companies, insurance firms, often use customer attrition analysis and customer attrition rates as one of their key. Business metrics because the cost of retaining an existing customer is far less than acquiring a new one. Companies from these sectors often have

customer service branches which attempt to win back defecting Clients, because recovered long-term customers can be worth much more to a company than newly Recruited clients.

Objective

- The main objective is to do some analysis, which could help them in findings the key factors responsible for customer churn, identifying churn behaviour and validate the reasons for customer churn with the help of EDA .
- Based on that we can recommend some suggestions for customer retention to business team based on analysis of telecom churn data set for reducing customer churn and increasing profit of the company.

Steps We have taken:-

Data inspection

Data cleaning

Checking null values

Finding duplicated values also

• Data visualization-

1. Pie chart for churned %

2. Plot bar for top 10 churned states

3. All seaborn work like-Count plots, box plots etc

4. Frequency distribution of all data

5. Making suggestions based on our analysis

Our Work:-

In this project ,we tried to analyse customer churn. First we did inspection of dataset on a basic level. We looked for missing values and check the outlier.
Then we used the matplotlib and seaborn to do Exploratory Data Analysis on sample data by plotting different graphs like count plot, pie chart,lmplot,barplot,boxplot, subplot and heat map from this we got useful insights like: customer having more daily charge will be more chances of churn, states like New Jersey,Texas and Maryland have higher churn rate, customer having international plan have more churn rate, customer having less customer service call have more churn rate and 14% percentage of customer who has been churned.

GitHub Link:-

https://github.com/Parikshit5/Telecom-Churn-Analysis-by-Parikshit