TELECOM CHURN PREDICTION

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INTRODUCTION

Churn prediction is one of the most popular Big Data use cases in business. It consists of detecting customers who are likely to cancel a subscription to a service.

Churn is a problem for telecom companies because it is more expensive to acquire a new customer than to keep your existing one from leaving.

Wireless companies today measure voluntary churn by a monthly figure, such as 1.9 percent or 2.1 percent.

PROJECT OBJECTIVE

- To predict Customer Churn.
- Highlighting the main variables/factors influencing Customer Churn.
- Use various ML algorithms to build prediction models, evaluate the accuracy and performance of these models.
- Finding out the best model for our business case & providing executive summary.

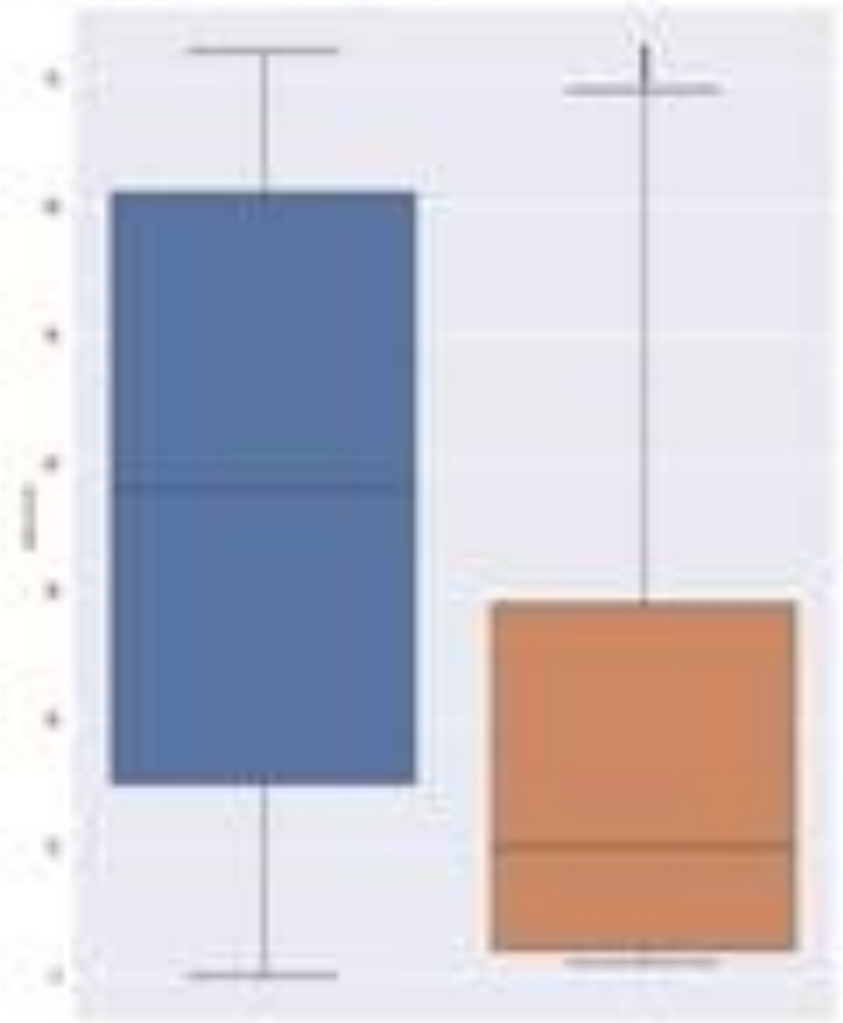
There are many ways: better products, better delivery methods, lower prices, building satisfactory customer relationships, better marketing and, above all, successful customer communications.

METHODOLOGIES

- EDA(Exploratory Data Analysis): The dataset consists of 12 variables in all. A few are continuous, rest are categorical. The control variable was customer.
- Model building which includes defining the purpose if model, determine the model boundary, build the model, create an interface and export the model.
- Evaluating machine learning algorithm is an essential part of project.

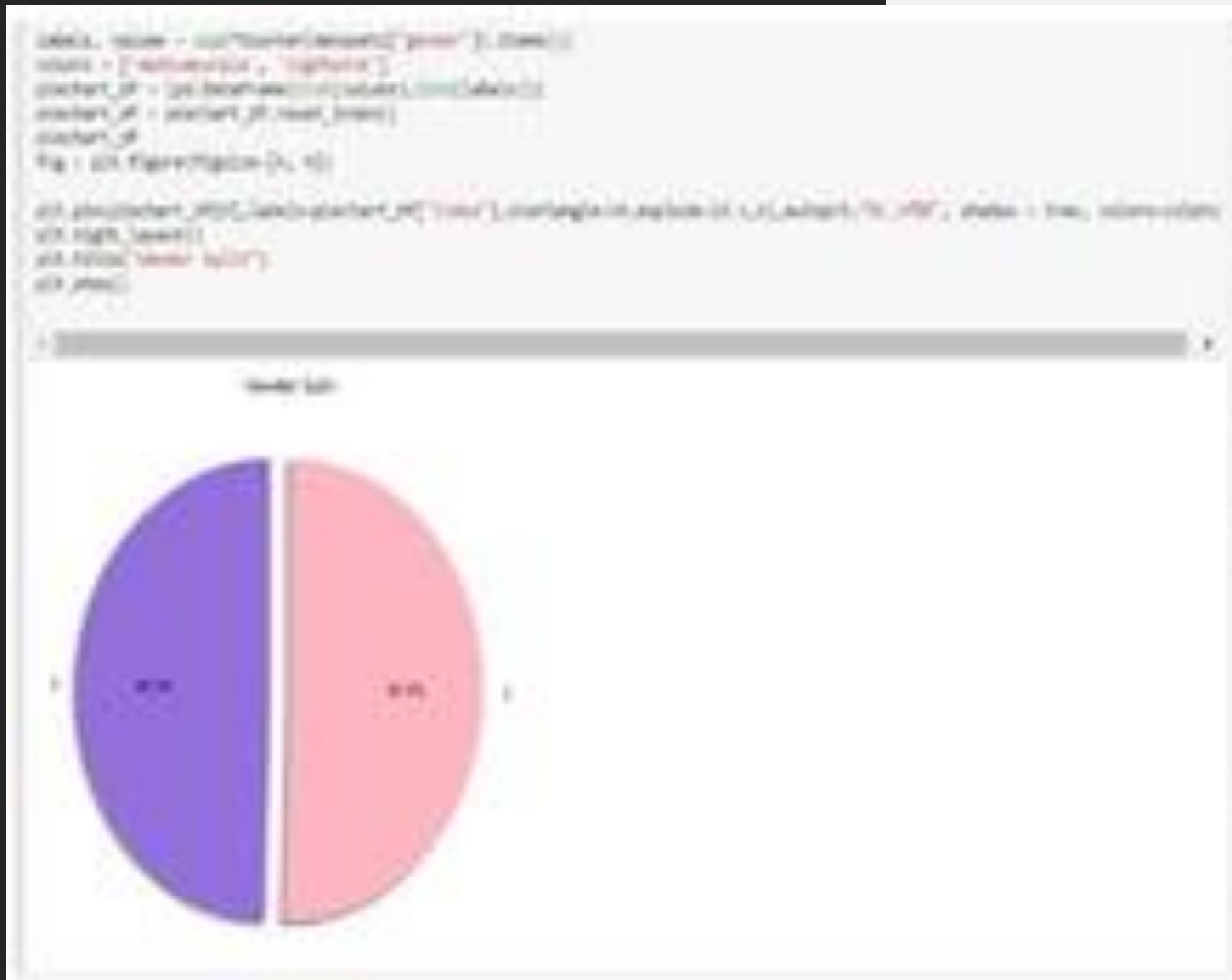
EXPLORATORY DATA ANALYSIS

- Data visualisation using seaborn and matplotlib
- Exploratory data analysis (EDA) is an approach to analyse data sets & to summarize their main characteristics, often with visual methods.
- A Statistical model can be used or not, but primarily EDA is for seeing what the data can tell us beyond the formal modelling or hypothesis.



BOX PLOT

- We found outliers in exiting customers which is out of whiskers. An Outlier is an observation that is numerically distant from the rest of the data.
- Using Skew() method we found that Churn data is inconsistent with tenure
- Customers who discontinuing their subscription plans are selecting short tenure. Telecom Company need to offer better plans for those customers who choose short tenures.



PIE PLOT

1)Female subscribers are 49.5% of the total

2)Male subscribers are 55.5% of the total

FINDINGS AND SUGGESTIONS

- Try to offer the better service for the churn customers ,see how much this impact before and later .Some may use your service better move them to your active customers.
- Take the feedback and suggestions with in period of time and improve it ,strive for better communication.
- When your are taking the any change in plans of your business just predict the positive and negative share of that plan. If it is negative prepare the solution before so You can handy easily.

CONCLUSION

- The importance of this type of research in the telecom market is to help companies make more profit.
- It has become known that predicting churn is one of the most important sources of income to Telecom companies.
- Hence, this research aimed to build a system that predicts the churn of customers i telecom company.
- These prediction models need to achieve high AUC values. To test and train the model, the sample data is divided into 70% for training and 30% for testing.