Project Proposal

Passenger Satisfaction on Airline Company

Done by: Sara Alqhtani
Submit to: Dr.Essam Al Daoud

Introduction

Data consists of the details of customers in an airline company who have already flown with them. The main goal of this dataset is to forecast whether a future customer will be satisfied with their service and which aspects of their services should be highlighted more to increase customer satisfaction. Data consists of total 129880 observations (train data:103904, test data:25976) and 25 columns.

Project Goal:

The purpose of this project: as mentioned above, this dataset will help airlines company to predicts the future customer satisfaction based on the data recorded in the past. The benefit of building this model is to increase the quality of their services and which aspects of their services should be highlighted more to increase customer satisfaction.

Data Description:

This dataset contains an airline passenger satisfaction survey. Data consists of total 129880 observations (train data:103904, test data:25976) and 25 columns with the flowing features:

- Id: Id number of the passengers
- Gender: Gender of the passengers (Female, Male)
- Customer Type: The customer type (Loyal customer, disloyal customer)
- Age: The actual age of the passengers
- Type of Travel: Purpose of the flight of the passengers (Personal Travel, Business Travel)
- Class: Travel class in the plane of the passengers (Business, Eco, Eco Plus)
- Flight Distance: The flight distance of this journey
- Inflight WIFI service: Satisfaction level of the inflight WIFI service (0,1,2,3,4,5/ 0=Not Applicable; 1=Least Satisfied to 5=Most Satisfied)
- Departure/Arrival time convenient: Satisfaction level of Departure/Arrival time convenient (0,1,2,3,4,5/ 0=Not Applicable; 1=Least Satisfied to 5=Most Satisfied)
- Ease of Online booking: Satisfaction level of online booking (0,1,2,3,4,5/ 0=Not Applicable; 1=Least Satisfied to 5=Most Satisfied)

- Gate location: Satisfaction level of Gate location (0,1,2,3,4,5/ 0=Not Applicable; 1=Least Satisfied to 5=Most Satisfied)
- Food and drink: Satisfaction level of Food and drink service (0,1,2,3,4,5/ 0=Not Applicable; 1=Least Satisfied to 5=Most Satisfied)
- Online boarding: Satisfaction level of online boarding (0,1,2,3,4,5/ 0=Not Applicable; 1=Least Satisfied to 5=Most Satisfied)
- Seat comfort: Satisfaction level of Seat comfort (0,1,2,3,4,5/ 0=Not Applicable; 1=Least Satisfied to 5=Most Satisfied)
- Inflight entertainment: Satisfaction level of inflight entertainment (0,1,2,3,4,5/ 0=Not Applicable; 1=Least Satisfied to 5=Most Satisfied)
- On-board service: Satisfaction level of On-board service (0,1,2,3,4,5/ 0=Not Applicable; 1=Least Satisfied to 5=Most Satisfied)
- Leg room service: Satisfaction level of Leg room service (0,1,2,3,4,5/ 0=Not Applicable; 1=Least Satisfied to 5=Most Satisfied)
- Baggage handling: Satisfaction level of baggage handling (1,2,3,4,5/ 1=Least Satisfied to 5=Most Satisfied)
- Check-in service: Satisfaction level of Check-in service (0,1,2,3,4,5/ 0=Not Applicable; 1=Least Satisfied to 5=Most Satisfied)
- Inflight service: Satisfaction level of inflight service (0,1,2,3,4,5/ 0=Not Applicable; 1=Least Satisfied to 5=Most Satisfied)
- Cleanliness: Satisfaction level of Cleanliness (0,1,2,3,4,5/ 0=Not Applicable; 1=Least Satisfied to 5=Most Satisfied)
- Departure Delay in Minutes: Minutes delayed when departure
- Arrival Delay in Minutes: Minutes delayed when arrival
- Satisfaction: /output column/ Airline satisfaction level ('satisfied', 'neutral or dissatisfied')

Project tools:

The libraries used to build the model are: numpy, pandas, matplotlib, seaborn, sklearn.