Analyze the impacts on Uber drivers' acceptance of passengers in New York City

Table of contents

Data Description

Content Analysis

Analysis Results

1.Data description

The dataset was collected from January 1, 2015 to June 30, 2015, containing more than 10 million observations of 4 variables aggregated by hour and by district, then combined with weather data to create 29,101 observations. observed on 13 variables. That is:

pickup_dt: Observation period

borough: District of New York City

pickups: Number of trips in the period

spd: Wind speed in miles/ hour.

vsb: Ability to display Miles feature to the nearest tenth

temp: Temperature in Fahrenheit

dewp: Dew point in degrees Fahrenheit

slp: Sea level pressure

pcp01: Liquid precipitate in 1 hour

pcp06: Liquid precipitate in 6 hour

pcp24: Liquid precipitate in 24 hour

sd: Snow depth in inches

hday: Holiday

2. Content analysis

2.1. Data preprocessing

2.2. Descriptive analysis of data

2.3. Exploratory data analysis (EDA)

2.4. Linear Regression and prediction

2.5. Data visualization

2.6. Correlation analysis

Ask questions like the following:

- What time should Uber drivers focus on picking up passengers? Which districts should we focus on where there is high demand for Uber car services?
- During the 6 months of January 2015 - July 2015, how did the number of customers using Uber car service grow and fluctuate?
- On weekends/ holidays, how do passengers' demand for using Uber car service change?
- How does the number of passengers using Uber service change during each hour of the day, each day of the week?
- How do natural factors impact the pick-up service Uber customers?

3. Implementation results