

Data Analysis Of Uber Dataset

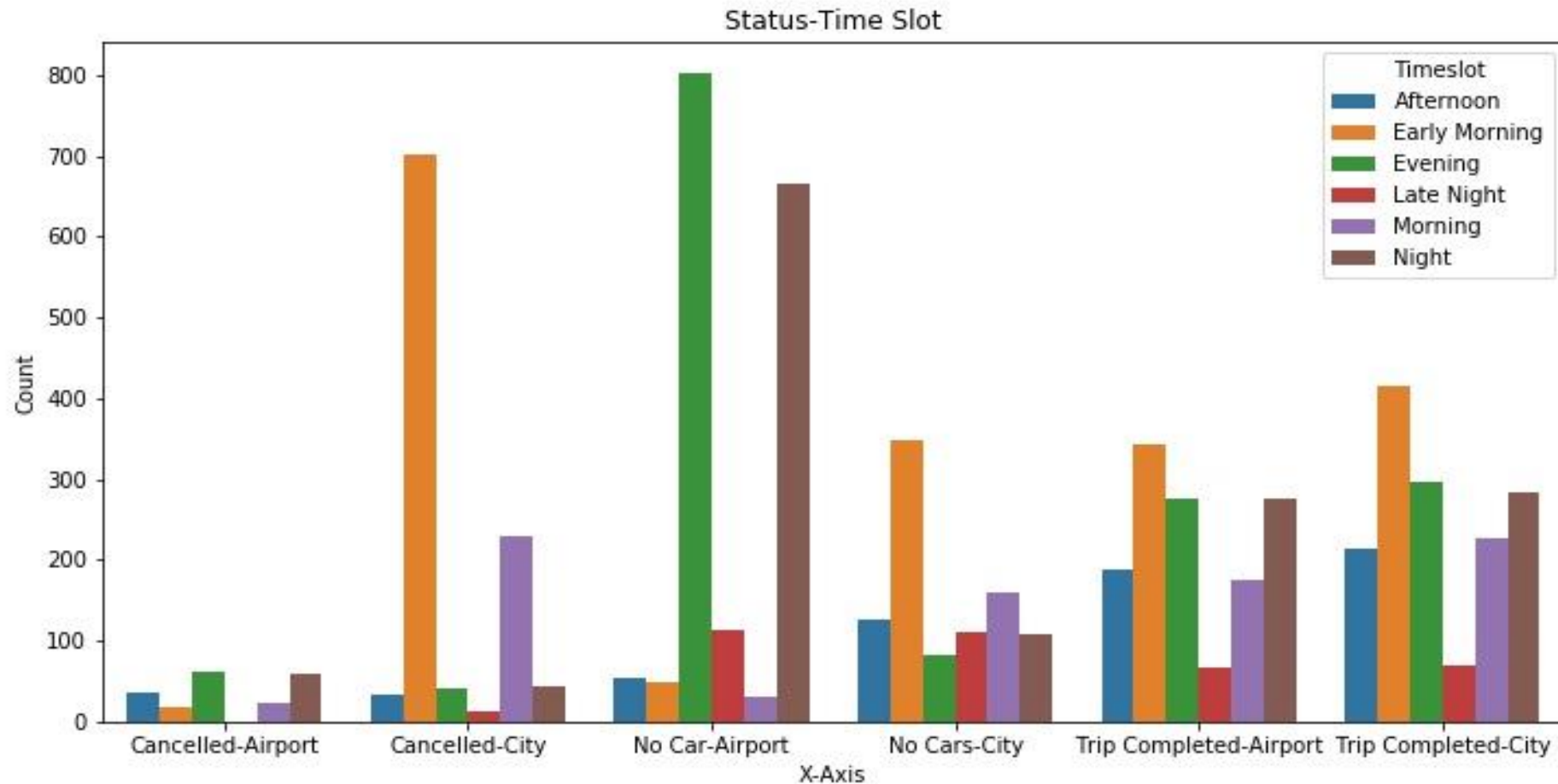
By Sanchari Gautam

Supply-Demand Gap – Analysis 1

A visual representation is made with Status-Pickup point in different timeslots and following are the observations:

- Very less cancellation of cabs from airport at any timeslot.
- A huge proportion of cabs is cancelled from the city in the early morning, as less drivers are eager to travel.
- No car is likely to be available at airport during evening and night, as this is the busiest hour to fly in and fly out.
- Afternoon timeslot is more likely to be having cars completing the trip.
- In the morning, more cabs are cancelled from the city due to rush hours.

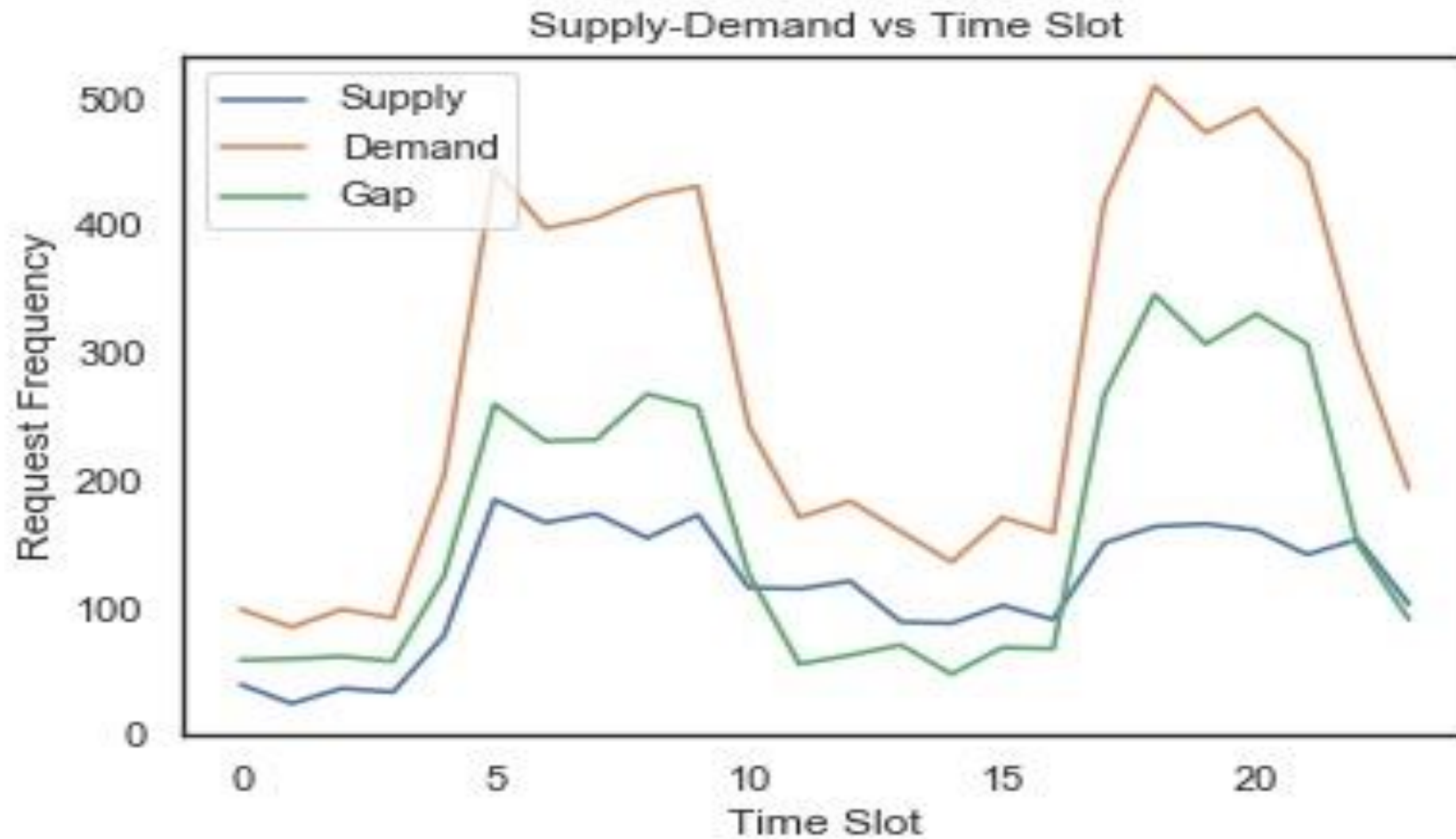
Graphical Representation - 1



Supply-Demand Gap – Analysis 2

- Another visual representation of supply and demand is made with respect to request hour.
- A good proportion of cab shortage is observed at the 5th and 8th hour and in between. The 5:00 am timeslot, being early morning, most of the cabs are either cancelled or not available. Hence, more is the gap. Again, the 8:00 am timeslot, being rush time, no cabs are available.
- The same pattern follows at the 18th and 20th hours and also in between. Evening 6:00pm-8:00pm is the busiest time of the day, leading to the huge gap.

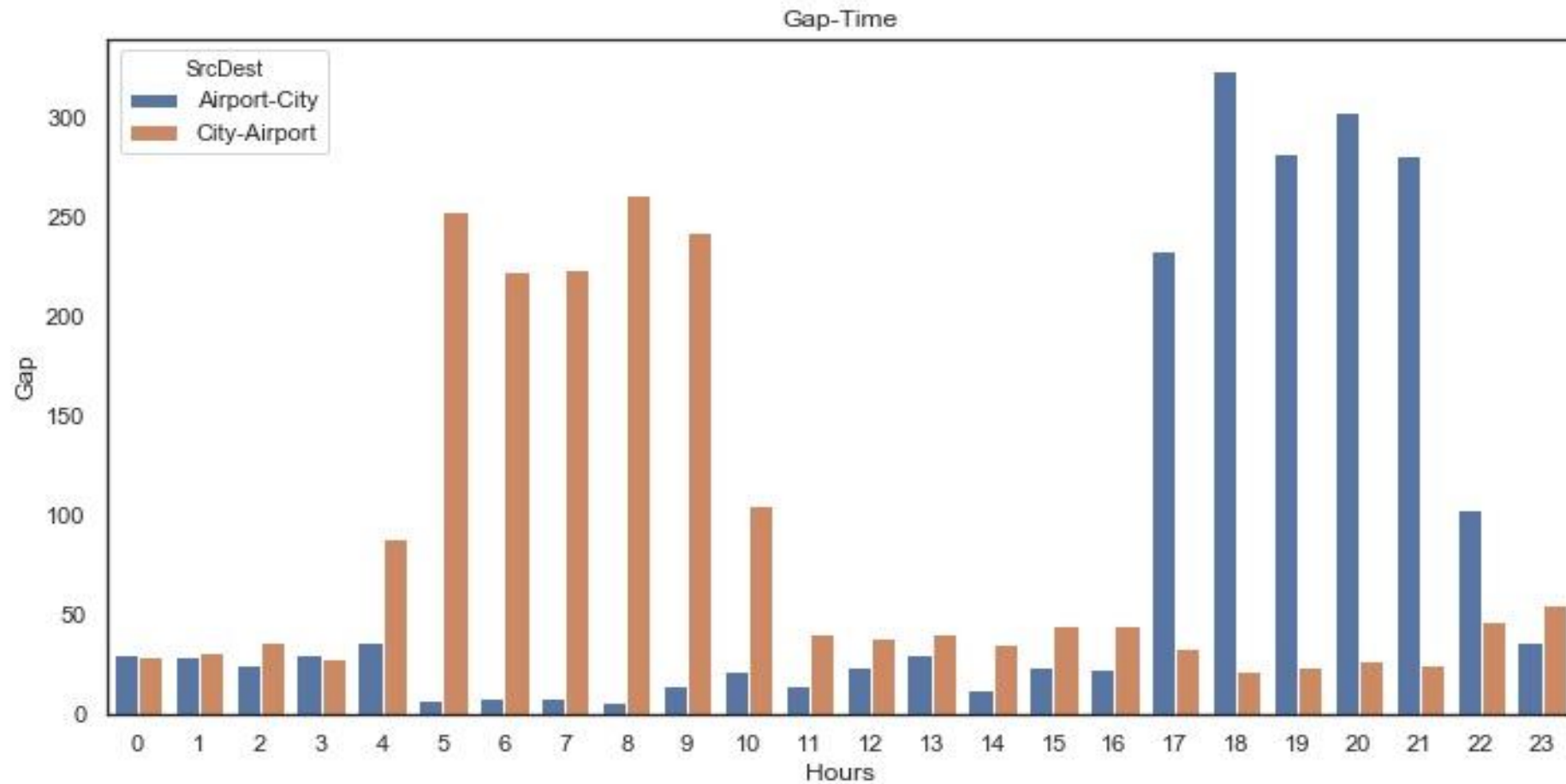
Graphical Representation - 2



Supply-Demand Gap – Analysis 3

- The representation is made with the gap varying with respect to the source-destination and request hour.
- The gap is the largest from 5:00am to 9:00am from city to airport. This can be very common with higher demand of cabs in the city being the rush hour. Hence, cabs are likely to travel shorter distance within the city, than a large distance to airport.
- Same trend follows in the evening slot of 6:00pm-9:00pm but from airport to city. This can be for two reasons.
 - Firstly, most number of flights fly in the afternoon, hence huge demand occurs around 6:00pm leading to no availability of cars.
 - Secondly, even if cars are available, they tend to cancel for huge traffic in the city in this busy office-hours.

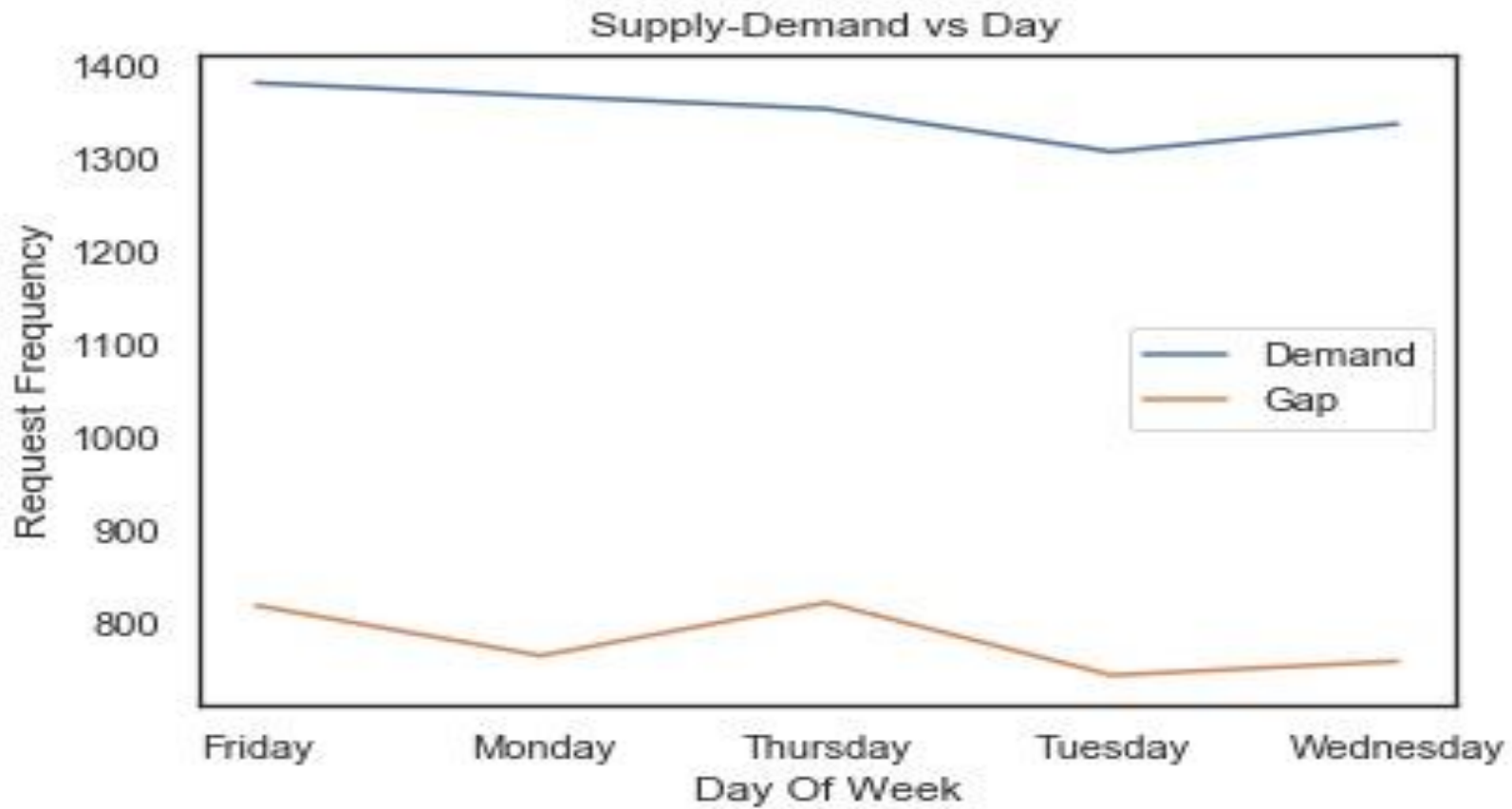
Graphical Representation - 3



Supply-Demand Gap – Analysis 4

- Another representation is made with respect of week day.
- It is observed that the gap is largest for Thursdays and Fridays.
- The demand for Fridays is largest. Friday, being the start of weekend, most people tend to travel on Fridays. Higher is the demand, higher is the probability of cars being not available.
- With Thursdays, supply of cars is less. Hence gap is more. This is possible because drivers are reluctant to drive at the end of the week.

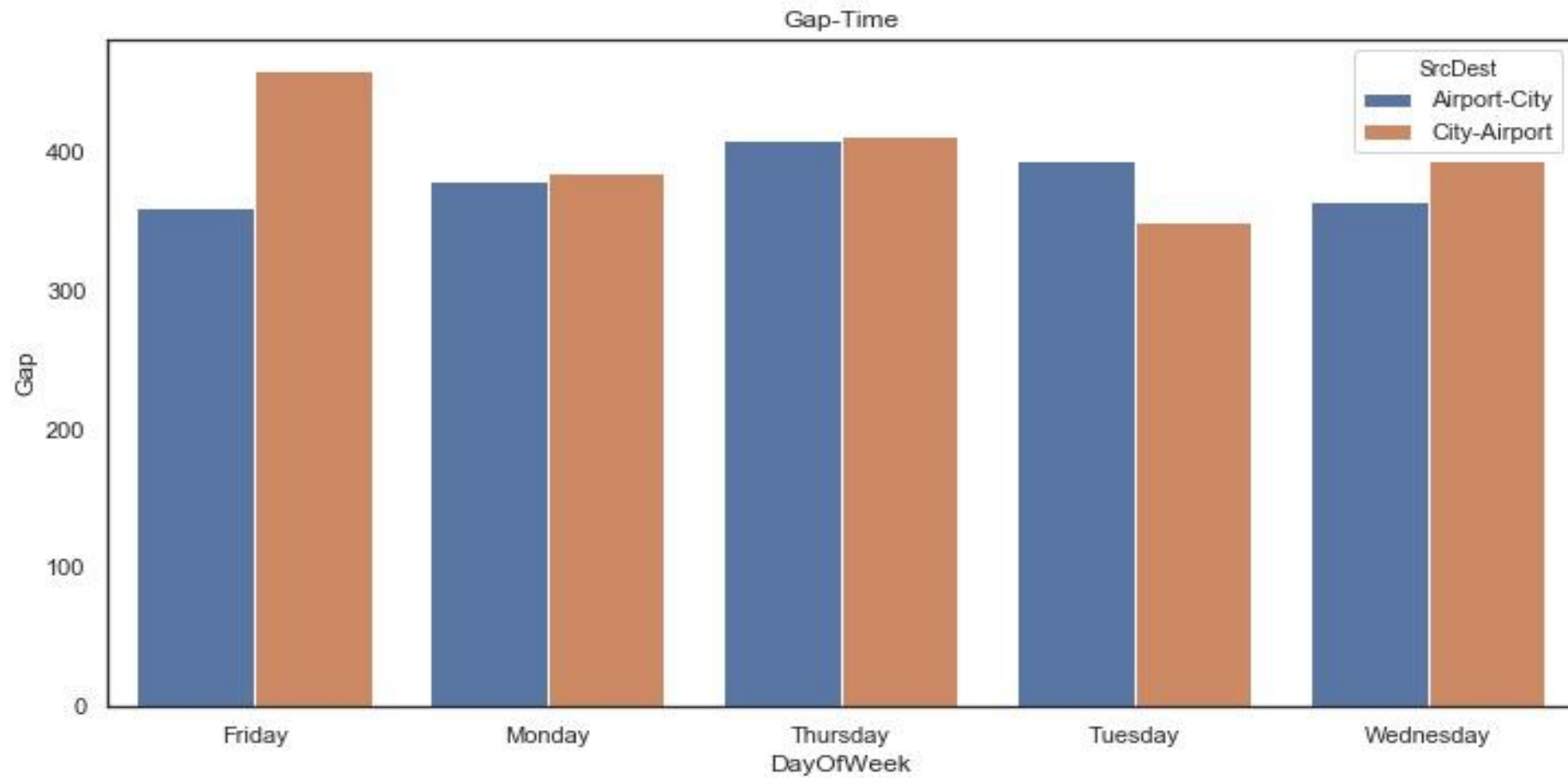
Graphical Representation - 4



Supply-Demand Gap – Analysis 5

- A representation is made with respect to weekdays and the variation of gap in source-destination combinations.
- It is observed that, on Fridays, gap is largest for the requests from city. The same logic can follow here.
 - Friday, being the end of week, drivers are reluctant to travel large distance from city.
 - People staying outside are more likely to fly on Fridays to hometown. Hence shortage of cars occurs for the huge demand.

Graphical Representation - 5



Solution To Supply-Demand Gap

- For reducing gap in the early morning slot(4:00am to 7:00am), extra bonus can be paid to drivers to lure them to drive.
- In morning timeslot (7:00am to 10:00am), more cabs should be launched to avoid non availability.
- In the evening slot of 6:00pm to 8:00pm, surge rate can be increased along with increase in the number of cabs.
- On Fridays, separately some cabs can be launched for only airport transport at any timeslot.
- During busy hours, only airport pool can be accessed, so that very less number of customers face cancellation or non availability.
- Drivers offering ride on busy hours can be given better rating, so that they can get more number of rides.

Thank you!