

Uber Supply-Demand Gap Analysis

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Objectives & Goals of Analysis

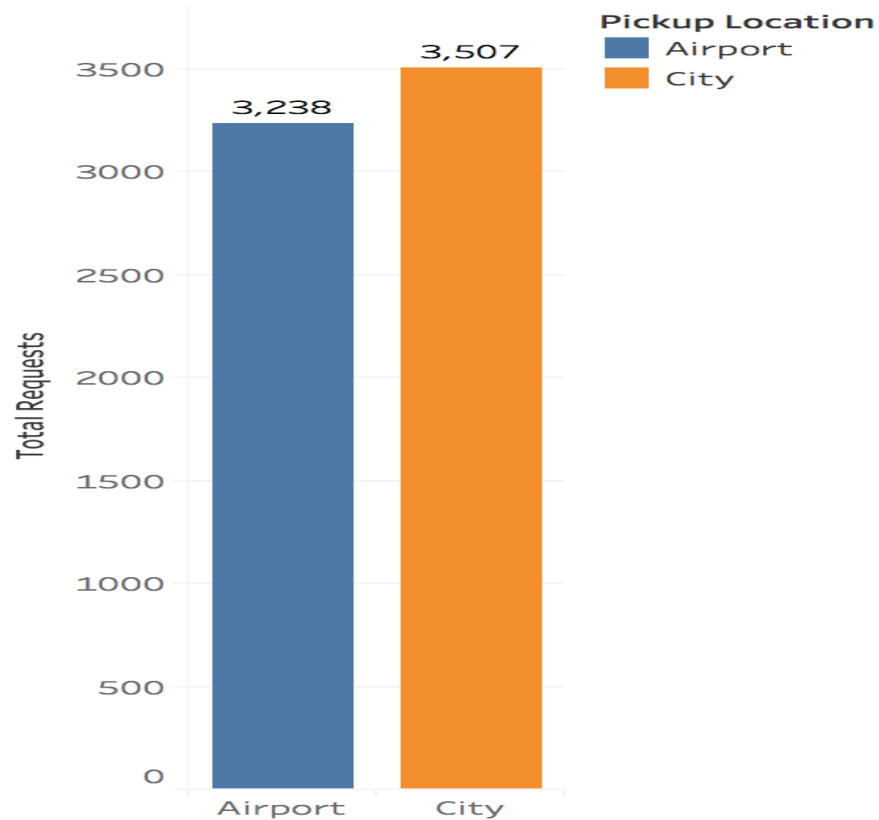
Business Objectives:

The objective is to identify reasons for non-availability and cancellation of cabs during various hours of the day. Any recommendations to improve the demand-supply gap would be made.

Goals of Analysis:

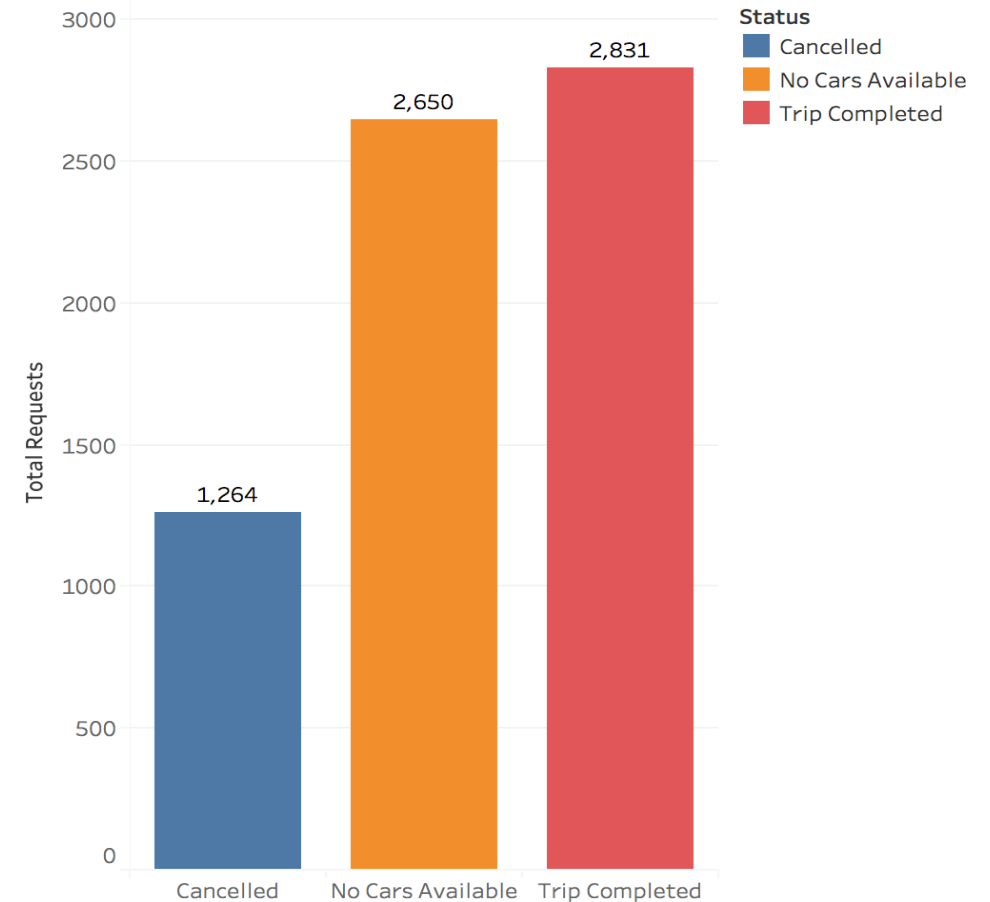
- **Identify critical problems in availability/ cancellation resulting in declined customer experience .**
- **Demand-Supply Gap analysis-** Understand reasons for demand supply gap
- **Recommendations-** Possible solutions to mitigate the gap

Total request by pickup location



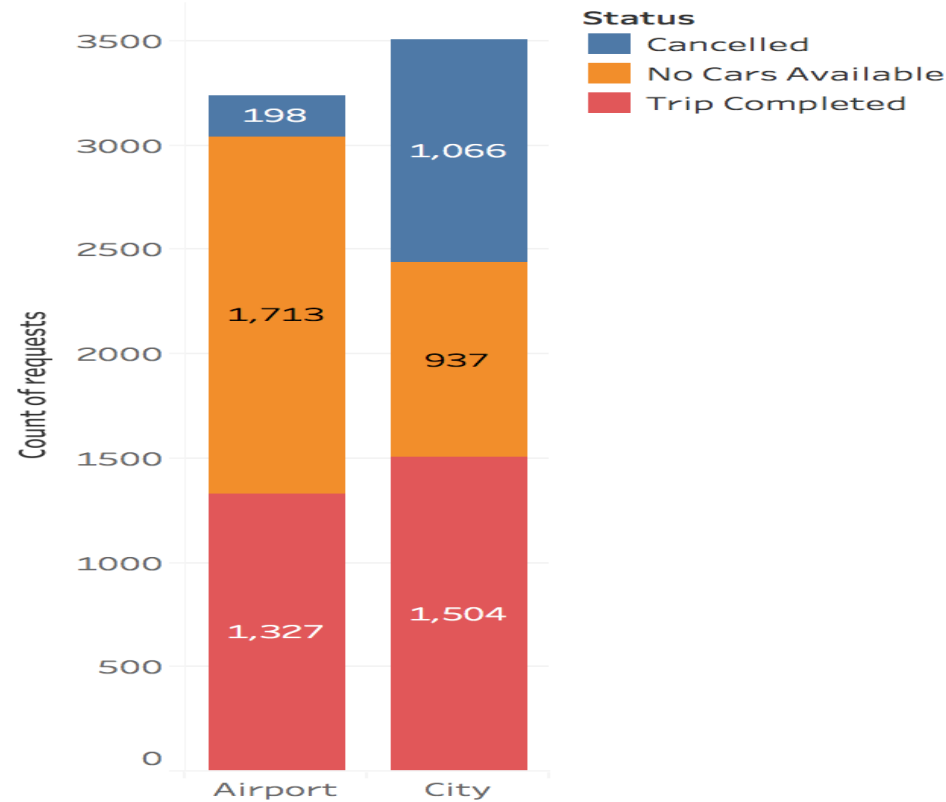
Total number of requests is plotted against the pickup location. Number of request vary very less by pickup location

Number of requests by status



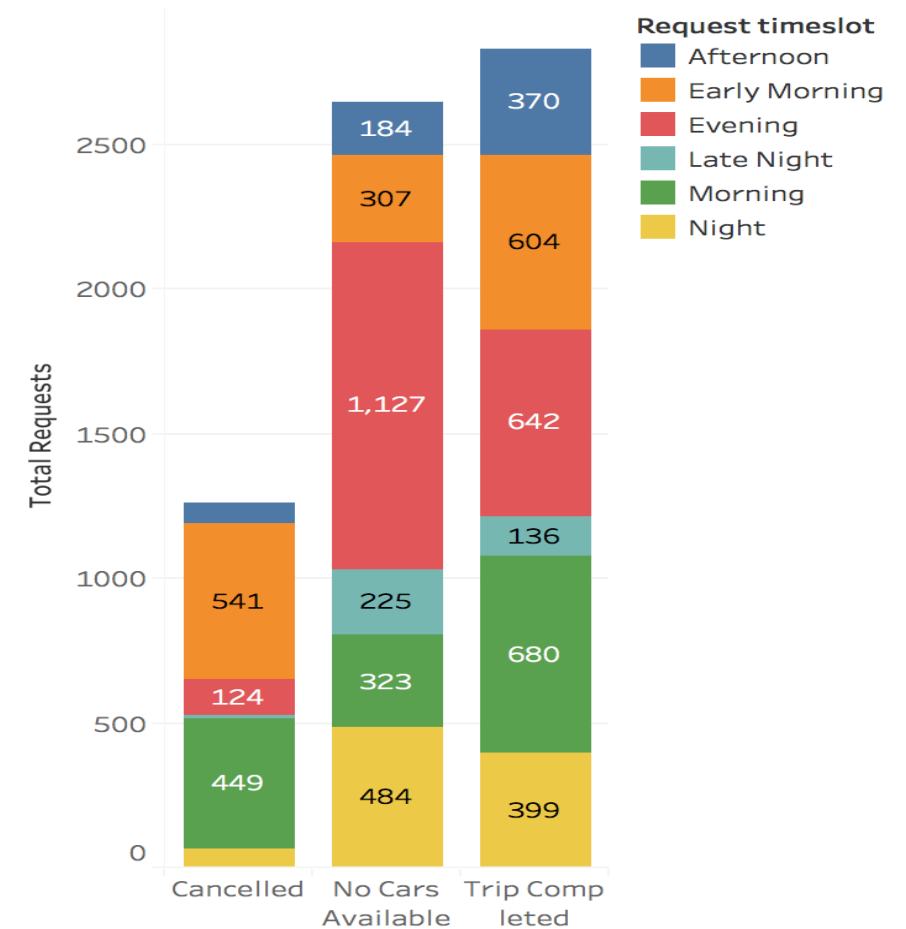
Number of requests is plotted against the status. Combined total of Cancelled and No Cars Available is more than Trip Completed.

Number of requests by status and pickup location



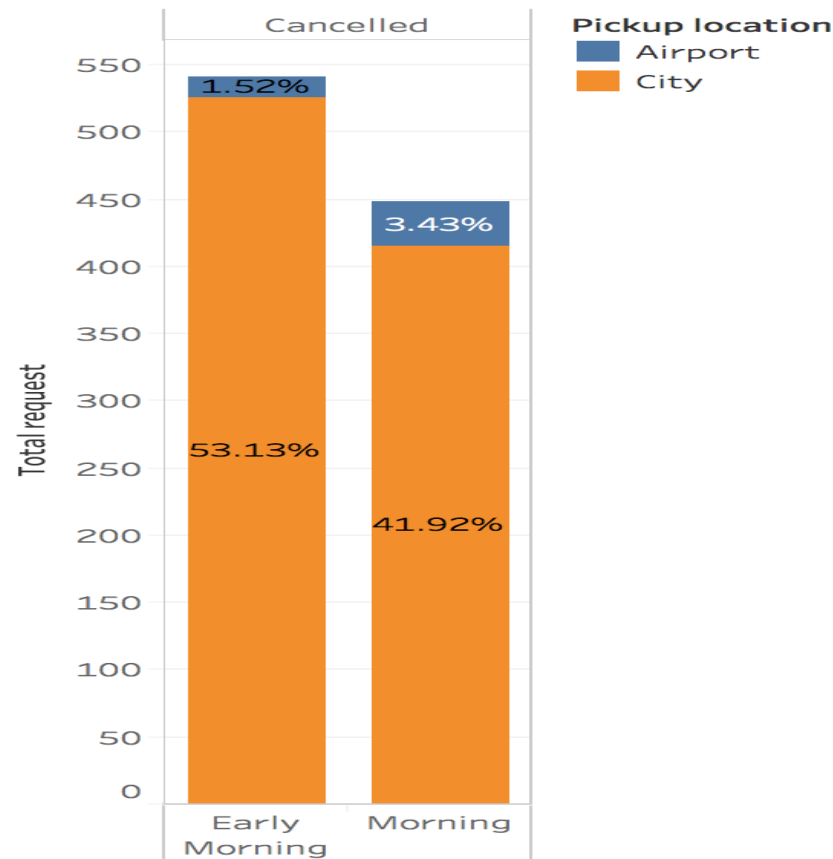
Number of requests is plotted against the status and pickup location. While "No Cars Available" status is high in city, more "Cancellation" happens during airport pickup

Number of requests by status and request timeslot



No cars available is high in evening. Cancellation is high during early morning

Number of cabs cancelled by timeslot and location

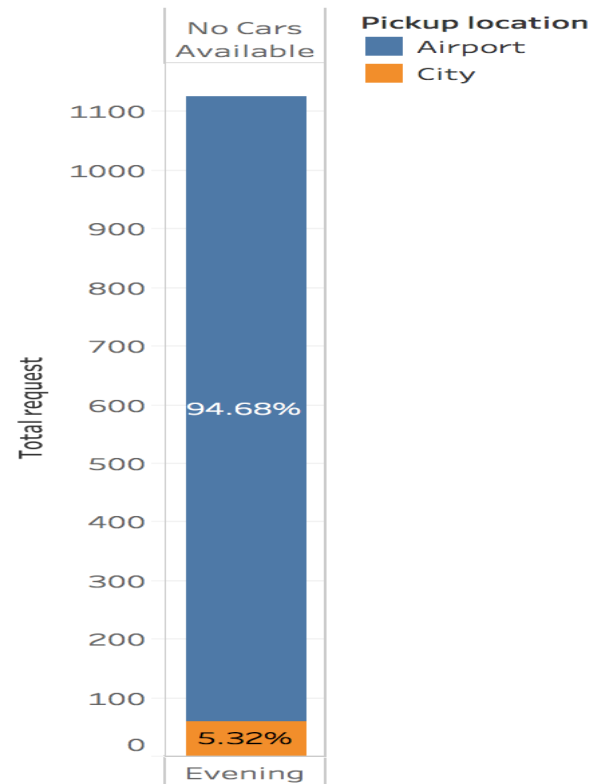


Number of cabs cancelled is substantially high in city than at airport

Analysis Results:

- Number of cabs cancelled is high during early morning (3AM-7AM) and morning (7AM-12:00PM)
- 95% of cabs cancelled are for city pickup.
- Reason of high cancellation:
 - The median of duration of the journey is high from city in this time slot.
 - The frequency of passengers taking cab from airport is high during evening. Hence the wait time would be very high at the airport.

No cars available in evening and location

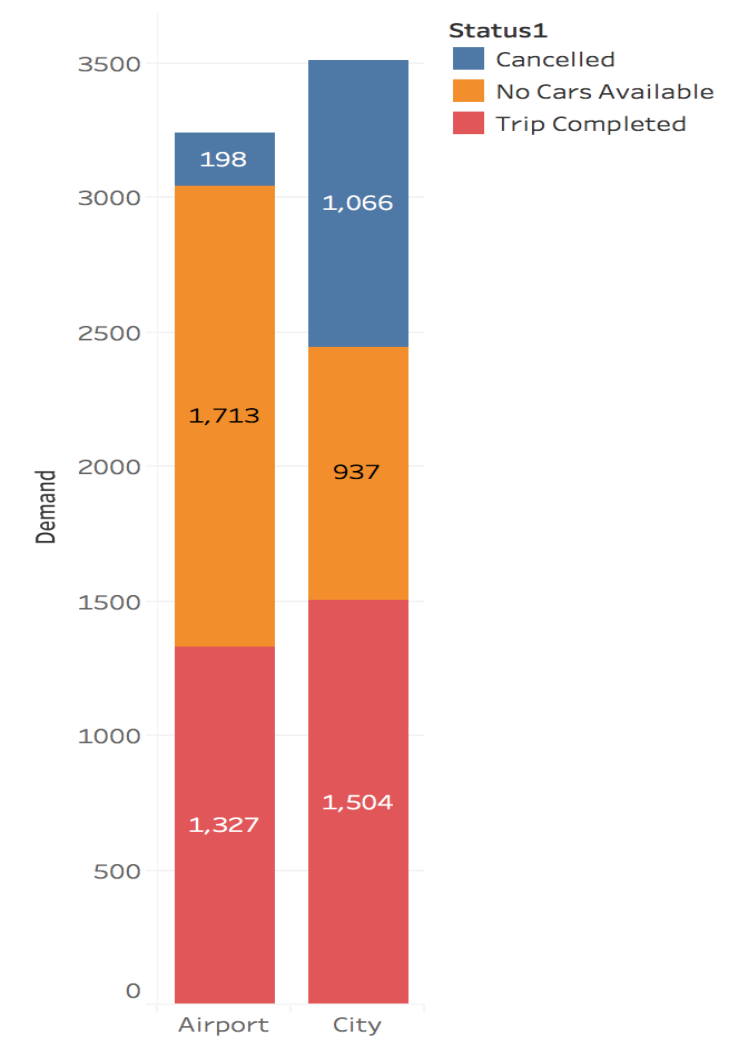


No cars available is very high in the airport during evening time

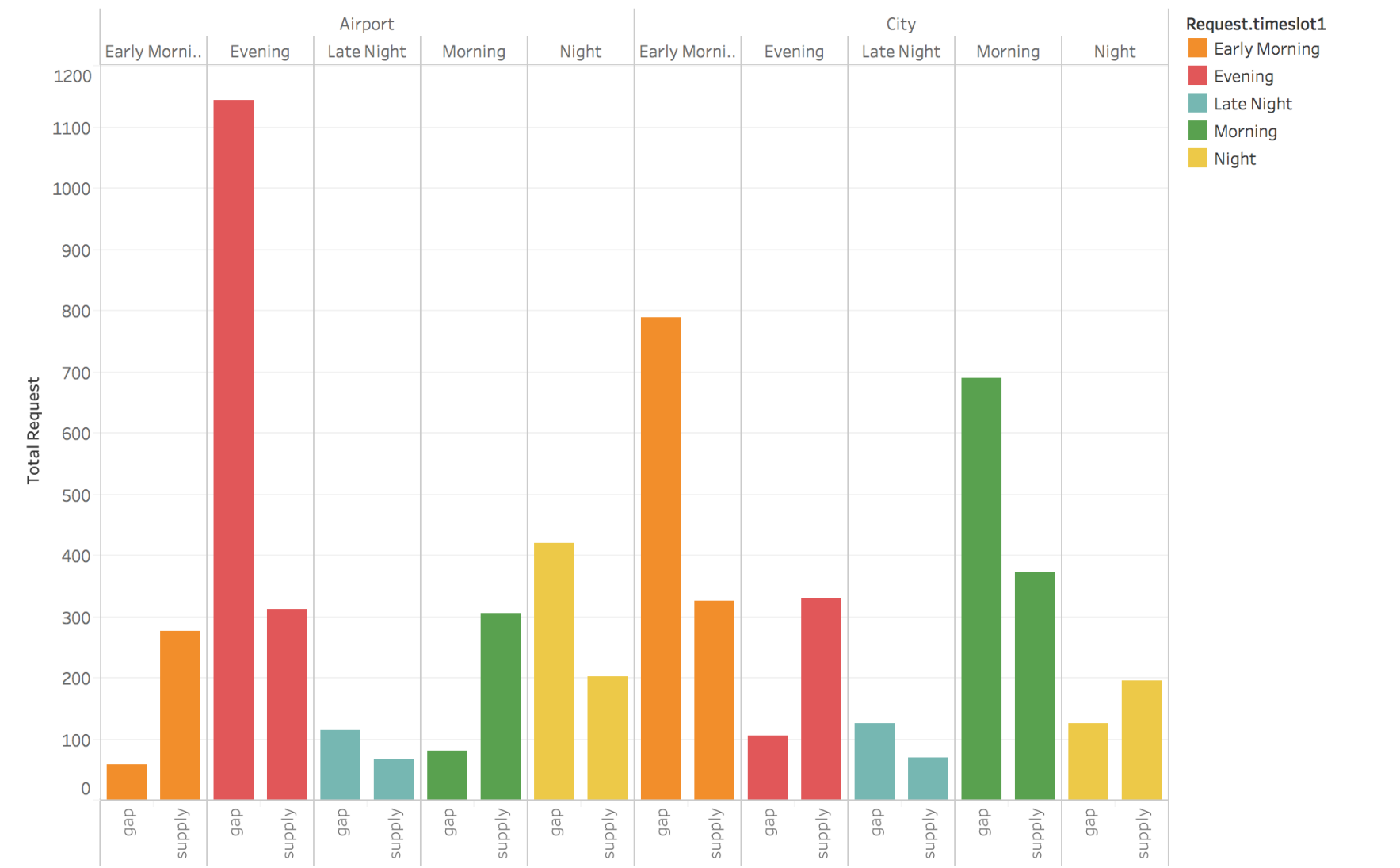
Analysis Results:

- No cars available is high during evening time (4PM-8PM)
- 95% of cabs not available are from airport pickup.
- Reason of high cancellation:
 - Evening is the most preferred time of landing and hence number of requests from the airport is highest during evening.
 - Since no cabs have reached to the airport earlier from the city (due to high cancellation),the supply of the cab is much lower than the demand.

Demand



Supply Gap Analysis



Conclusion

- Gap is higher than supply for
 - Early morning and morning for city pickup
 - Evening for airport pickup
- High morning traffic due to office and schools results in high median of travel time to the airport.
- Low airport pickup demand results in high wait time at the airport.
- Lesser cabs reaching airport by evening results in low supply at increased demand time slot.

- Encourage pooling of riders to the airport. This would ensure a larger combined income to the driver.
- Incentivize the drivers opting for morning pickup to the airport by providing monetary benefits.
- Reduce wait time at the airport. Encourage drivers to leave the airport w/o passenger after a minimum wait time. Till the driver gets a passenger in the city, a monetary incentive can be added.
- Drivers staying near the airport would have higher incentive to take the trips. More such drivers can be hired.
- Number of cabs at the airport in the evening should be increased to maximize returns.