A STUDY AND ANALYSIS OF CABS BY RATINGS

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Abstract: World's Cab business has modified drastically from street-hail, unorganised taxi format to app-based rides being employed in all walks of life. Today, Cabs market is incredibly trendy and provides variety of advantages to its users in terms of convenience, comfort, calculable movement time, real time data, economy and safety. E-hailing of cabs has become a vital part of metropolitan cities and they offer additional client worth than most of the standard taxi services. For this paper, knowledge has been collected from dataset called RideAustin_Weather.csv of the company RideAustin with the assistance of structured form. The aim of this paper is to check numerous factors that influence the riders' behaviour and provide a detailed analysis report via charts and graphs on the above data.

Index Terms – **Uber, Analysis, Dataset, Rating, Reviews, Cars, Distance.**

I. INTRODUCTION

Cab travel has become an essential part of the transport domain, and with the advent of technology, it has only progressed further. Today with the various cab services mobile applications you can have a cab at your doorstep within the least amount of time possible, no matter where you are. With various cab services like Uber, Ola, etc. competition has increased in the market and it is essential for each of these companies to provide the best journey possible for their customers. One of the most prominent ways of evaluating journey experience is to analyze the ratings given by the customer after each ride. These ratings are a very good measure of the ride experience, which again is due to multiple factors. These factors vary from the time taken for the journey, the smoothness of driving, safety, car model and comfort, etc. Since it is not feasible to analyze the ride ratings based on the cab drivers, due to the large number we decided to consider the other factors for analysing the ratings. Those factors mainly include car models, car manufacturers, time taken for travel, distance of travel.

II. IMPLEMENTATION

Firstly, we wanted a dataset that was renowned and pretty easy to analyze for ratings given by customers. So we found this dataset called RideAustin_Weather.csv of the company RideAustin which is a non-profit TNC created by the Austin community. RideAustin They boast more than 2 million rides, the details of which we will be using to analyze the data. We are using Tableau for the data analysis.

The dataset had 908,344 records, and 27 columns, all spanning across the different parameters relevant for cab transport analysis.

Following are the different graphs we obtained from the analysis of the data:
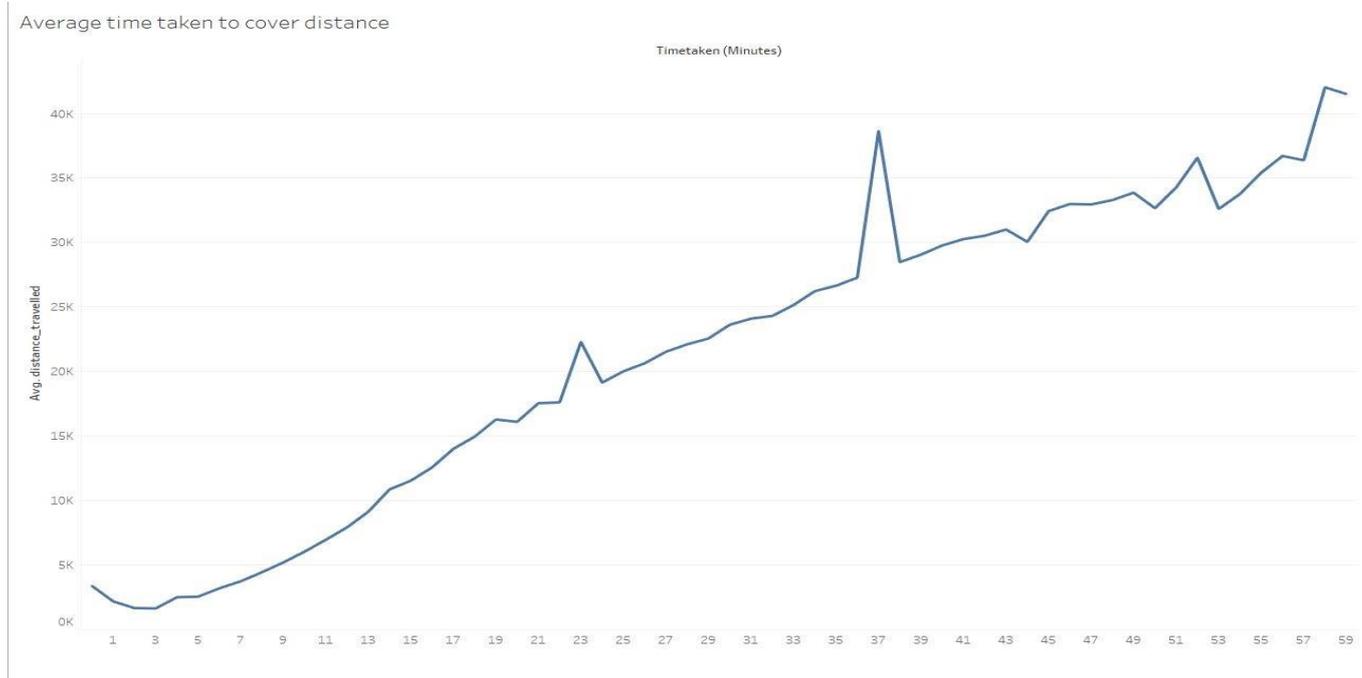
As seen in the graph above, it is a linear regression graph between the average time taken to travel distance. The X axis has the time taken in minutes while the Y axis has the average distance travelled. As seen, with increasing distance the time taken to reach the destination is obviously more.

2)
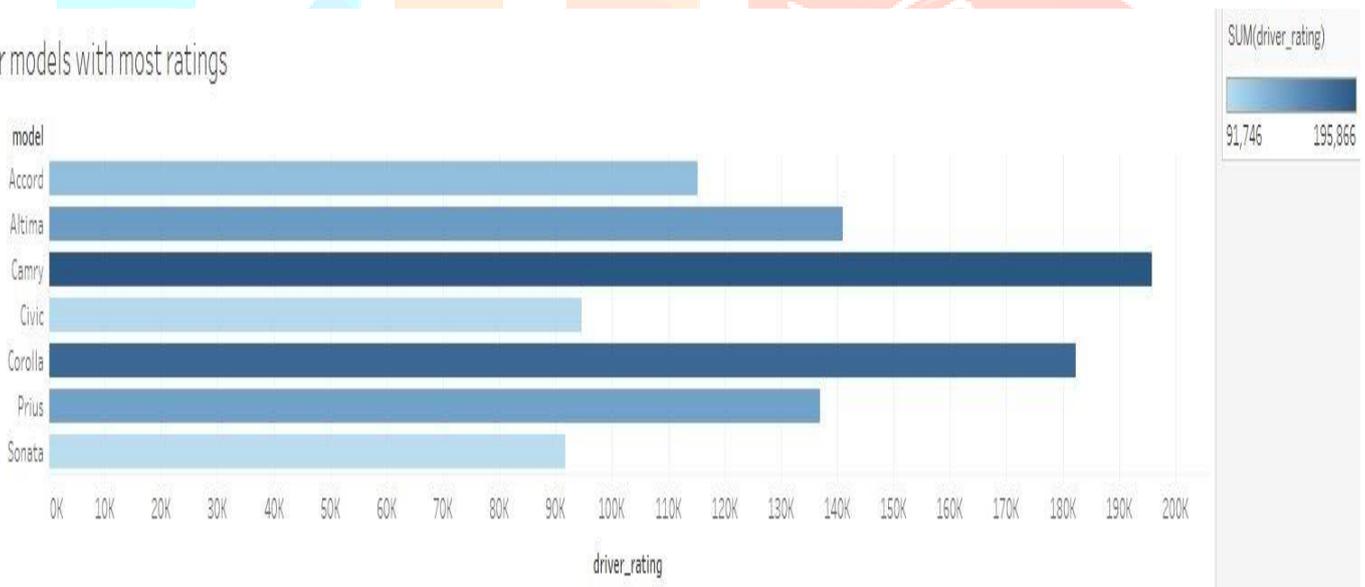
This graph shows the car models which get the maximum rating from all customers.

The X axis has the driver rating while the Y axis has the model name. As seen, Camry and Corolla have the highest number of 5 ratings. This can help the company which car models to invest in for their cabs, since car model, comfort, security and performance makes a difference in customer experience and customer reviews.
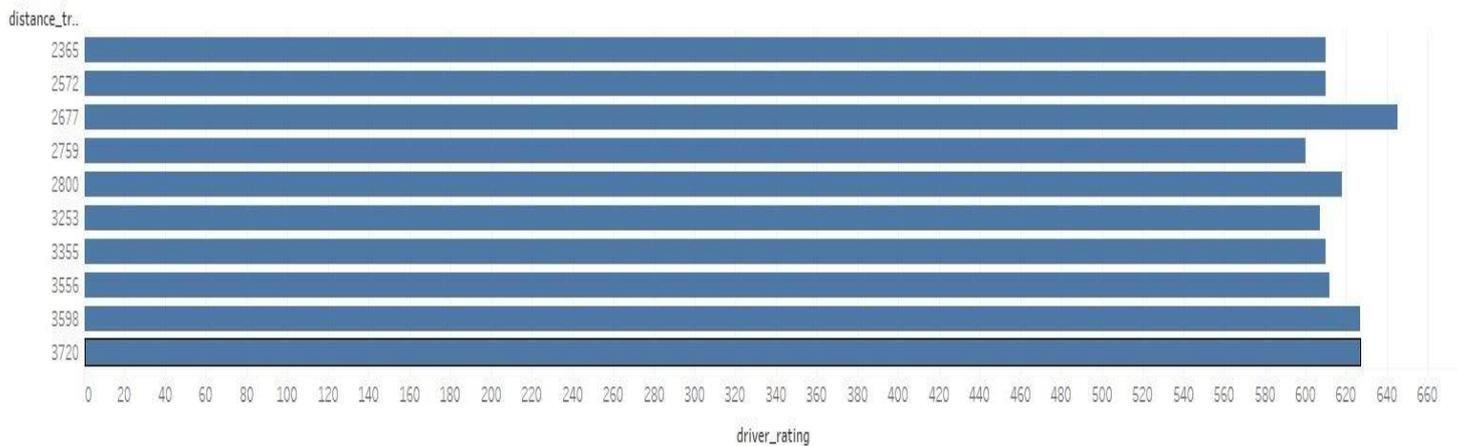
3)

Car model with driver rating 5
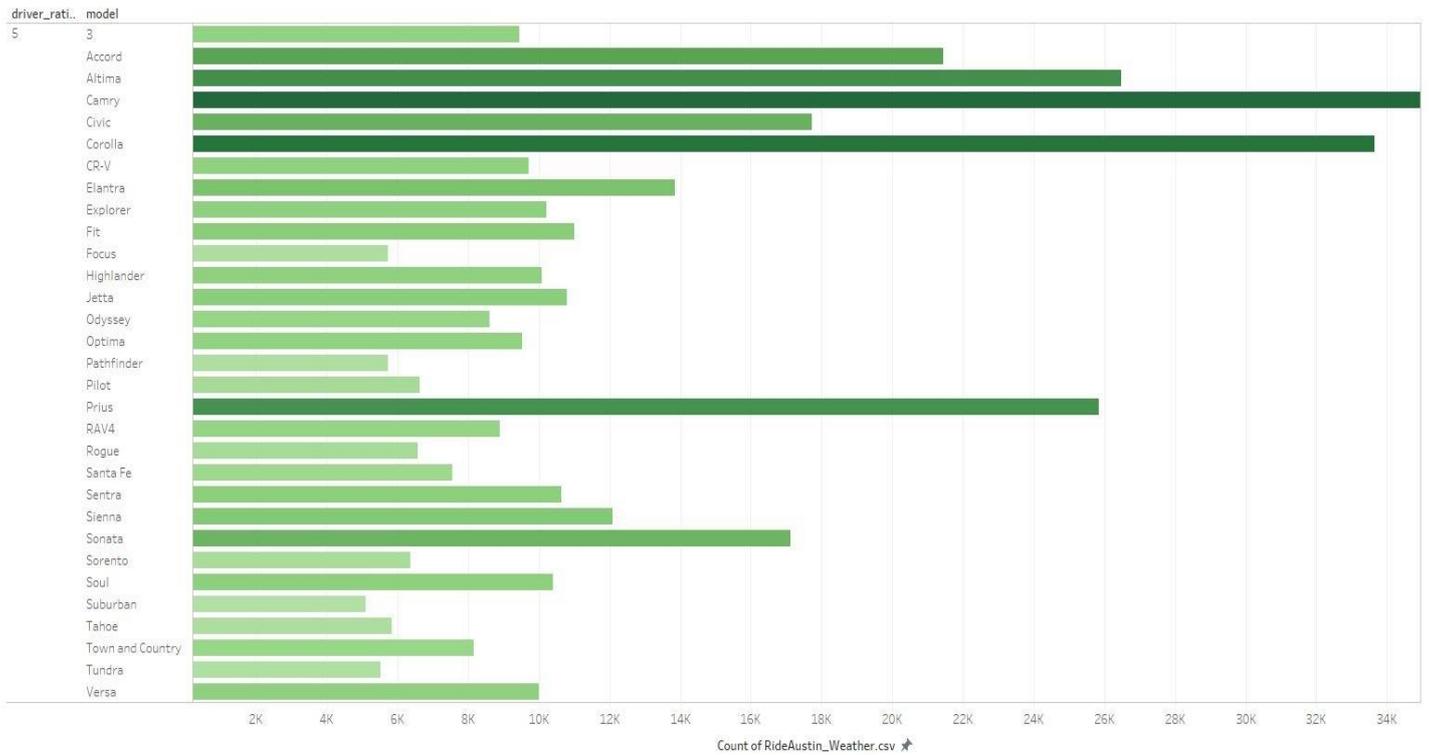
This is a detailed graph which shows the number of models who get the maximum amount of 5 rating from the customers. As seen, the models with high rating are more in quantity.

4)

Max no.of Ratings Recevied based on distance

This graph shows a relationship between distance travelled on Y axis and the driver rating received on X axis and it clearly shows that the range of 2400-3800 gets the maximum 5 rating from customers indicating that this medium distance traveling is best suited for majority of customers and can get the company positive feedback in a larger number

5)

Ratings based on time taken to travel
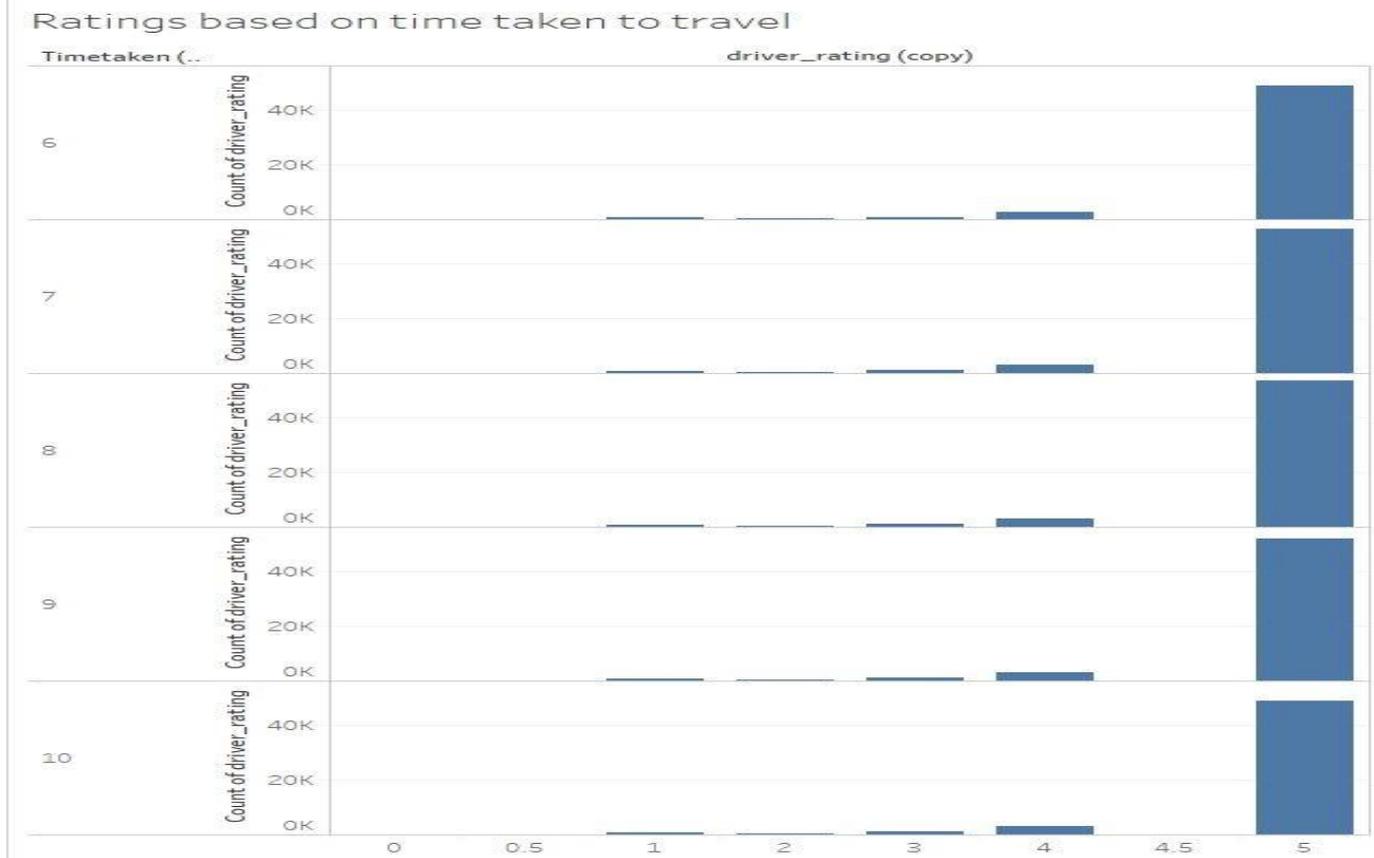
This picture indicates the relationship between time of travel and driver rating, where it clearly shows us that the time taken to reach the destination has a direct effect on the customer rating. As seen, between 6-10 minute's of travel, the customers tend to give more ratings to the driver and the journey.
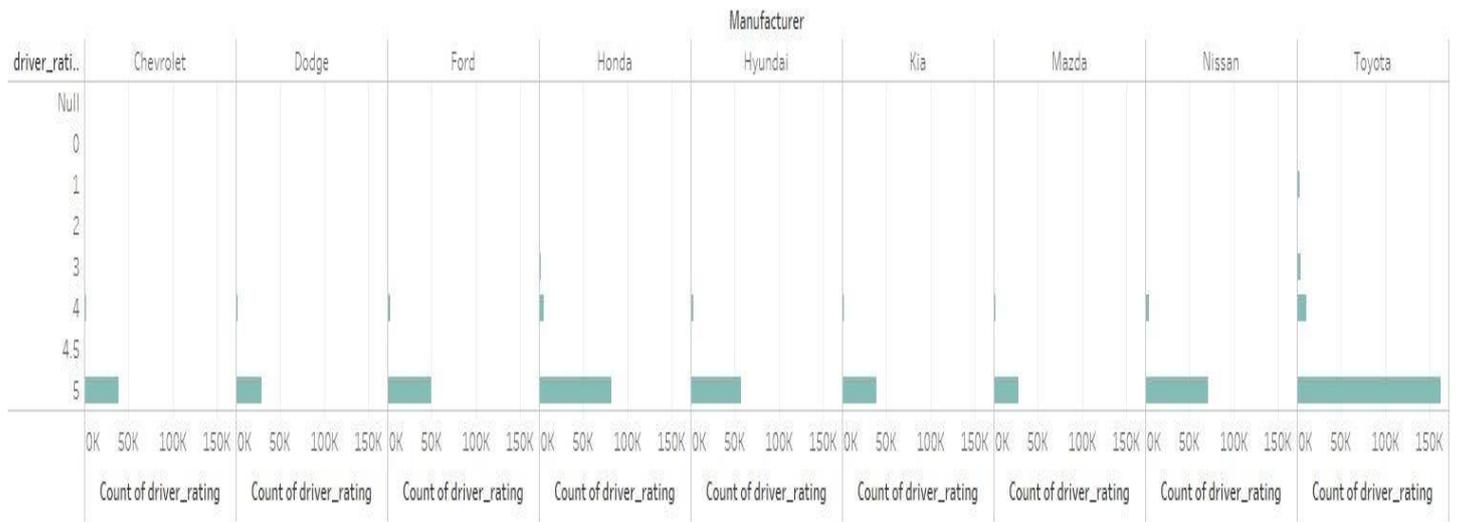
6)

Ratings based on time taken to travel
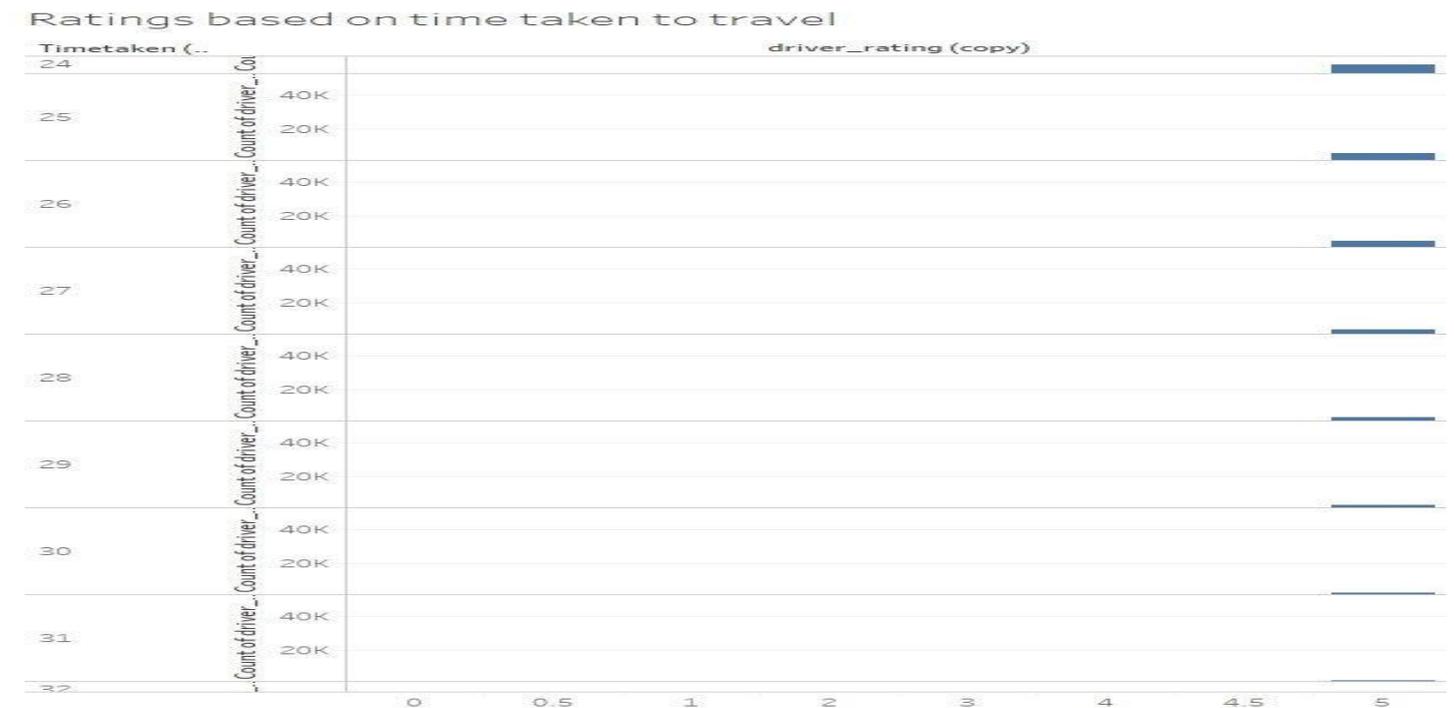
This picture also indicates the relationship between time of travel and driver rating, but here it is observed that if the journey exceeds 25 minute's of travel, the customers tend to give less ratings to the driver and the journey.

7)

Ratings Based on Car Manufacturer Company

This graph indicates how the car manufacturers company and the rating is related. As seen, Toyota gets the maximum number of feedback from customers in terms of driver rating.

LIMITATIONS OF THE STUDY AND FUTURE RESEARCH:

As any analysis is not complete and always have a scope of further research, this analysis too has further scope. As Data was collected only from Austin region by only the company RideAustin, result represents only small part of population. In future further research should be done with more varied sample with more geographically spread. So, there are chances of having a wider scope of further research and further research will give more comprehensive conclusion about aggregator cabs services in the world.

CONCLUSION:

Thus, as seen from the various graphs we were successfully able to analyze the ratings obtained after the cab rides on various factors that might play a good role in affecting the ratings. Using a similar method, cab companies can analyze their ride ratings and evaluate which car model to use more, which car manufacturer to use,etc. At the same time, they can conduct surveys to find out why and how distance plays a role in affecting the ride ratings, be it very long or very short distances. Being equipped with all this information, the companies can better understand their client base and improve their ratings in the future.

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