

1- Problem Introduction

Big Mountain Resort is facing with a problem of how to overcome the cost of the newly installed chair lift. The cost is \$1,540,000. The resort's pricing strategy is already above the market segment.

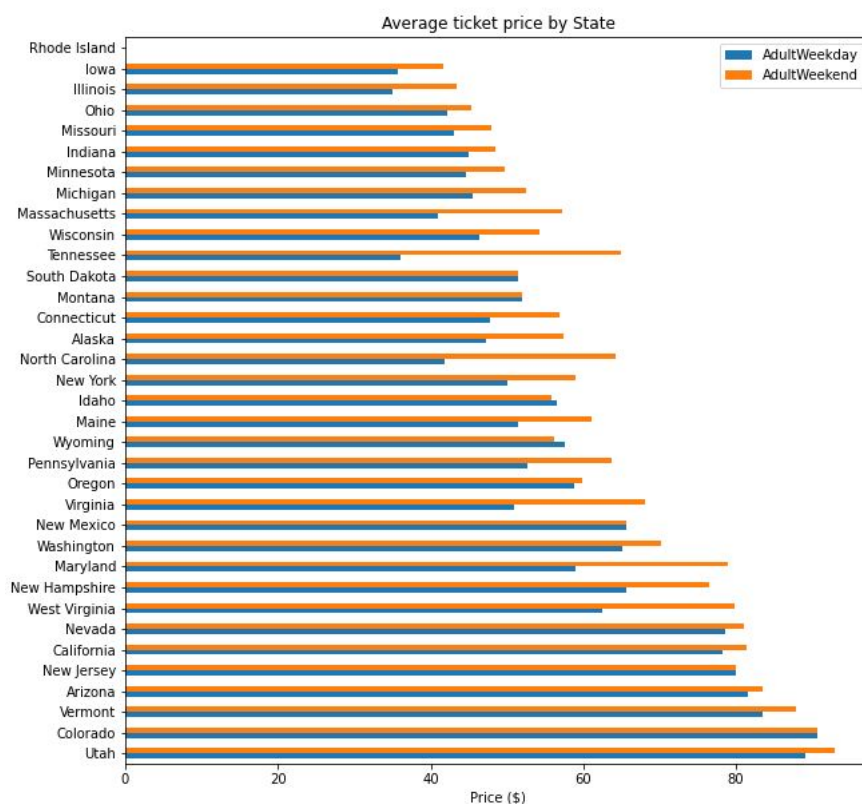
So, a new strategy needed to find how to take more advantage of its facilities, or find a way to support the ticket price.

2- Dataset

The data was provided by Alesha Eisen, the Database Manager. The data contained 330 entries with 27 columns. Some of these columns; such as the state, ticket prices for both weekend and weekdays, types of facilities and their numbers looked promising.

3- Features and Processing

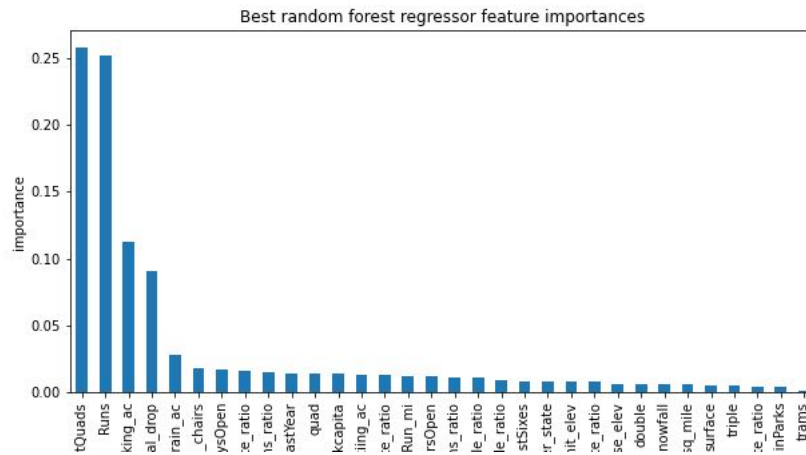
An eyeballing at the data had an understanding where Montana resorts stand on the price spectrum.



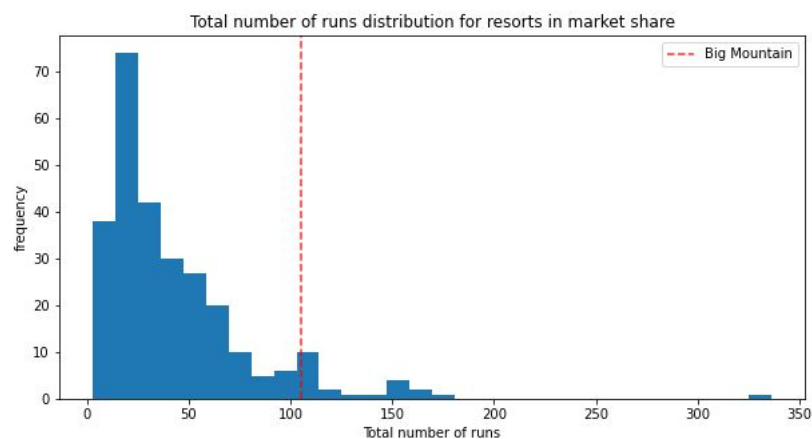
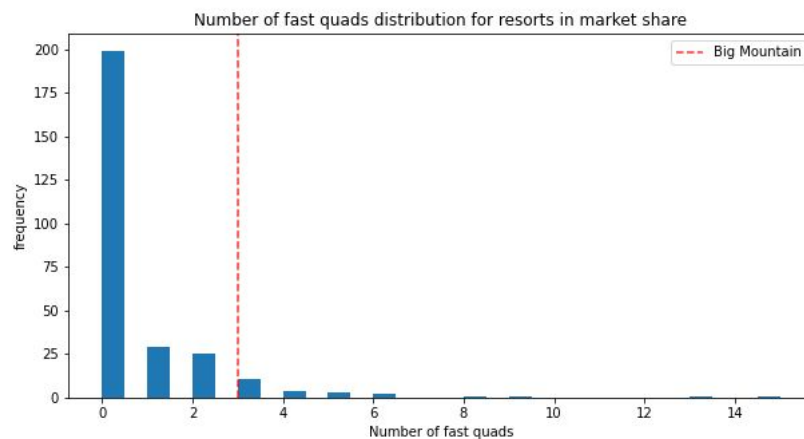
This new information will help to understand if each resort is in the same segment compared to others in the same state. Especially, with added prices, it would be able to understand if the state is related to the ticket price. But, there were too many columns to solve. Principal Components Analysis is used to find the linear combinations. The result revealed that there is no relation between the state and price.



¹ Resource: https://simple.wikipedia.org/wiki/List_of_U.S._states



Later, the model used the predict the expected ticket price for Big Mountain Resort. It was \$95.87. Even though this is much higher than the current price, it is plausible because Bib Mountain Resort has more facilities than the average. Especially for the important ones.



5- Results and Discussion

Based on the model and the situation four scenarios prepared.

1- Permanently closing up to 10 runs

2- Increase the vertical drop by 150 feet with an additional run and chair lift

3- Increase the vertical drop by 150 feet with an additional run, chair lift and adding two acres of snowmaking.

4- Increase the longest run by 0.2 miles and additional snowmaking coverage of 4 acres

3rd and 4th scenarios came up with no differences. However, the 1st scenario brought up two important points. Big Mountain Resort can close 1 run and it will have no effect on the ticket price, therefore, the revenue. Besides, closing three, four or five runs has no change. But they will drop the ticket prices by \$1.99 and revenue \$3,474,638