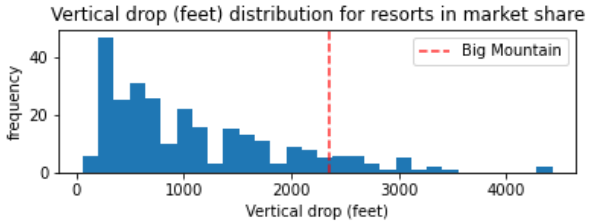
Recommendation on the Ticket Price Raise and Future Facility Changes for Big Mountain Resort

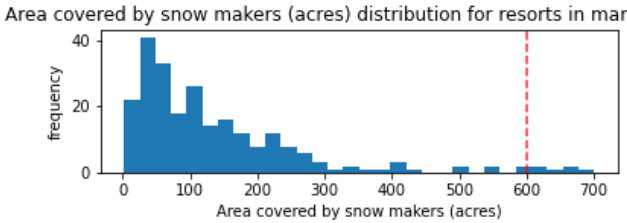
Background and Problem

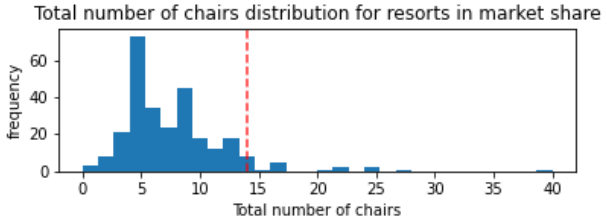
- Big Mountain Resort's price strategy has been to assess a premium above the average price of resorts in its market segment. It is currently charging 81 dollars for adults on weekdays and weekends.
- However, basing the pricing on the market average may have limitations, such as under-capitalizing its facilities. A more data-driven business strategy is needed to guide the price setting.
- It is also desirable to explore potential changes in current facilities that will either cut costs without undermining the ticket price or will support an even higher ticket price for Big Mountain Resort.

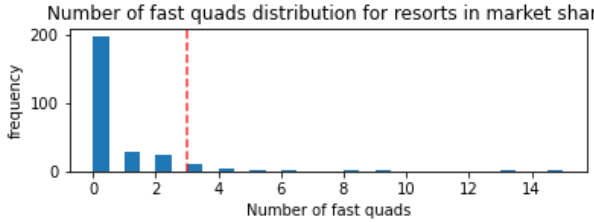
Recommendation and Key Findings

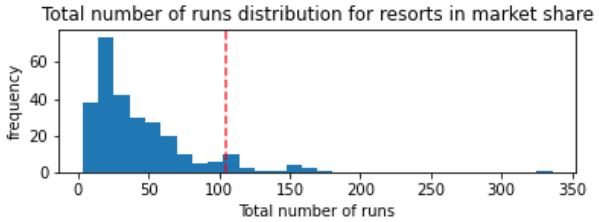
- The model we built suggests Big Mountain charge 95.87 dollars instead of 81 dollars for their tickets.
- Big Mountain Resort has recently installed an additional chair lift which increases the operating costs by 1,540,000 dollars this season. Our model suggests that raising the current ticket price by 0.88 dollars can cover these additional operating costs.
- The model can also aid the decision-making in adding certain facilities to support a higher price or cutting costs of current facility operations. We will include two examples.

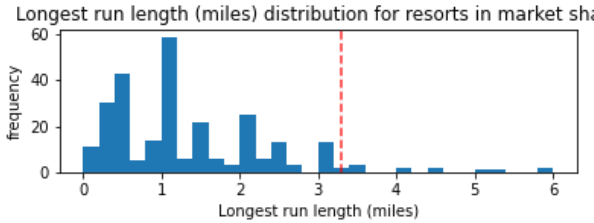


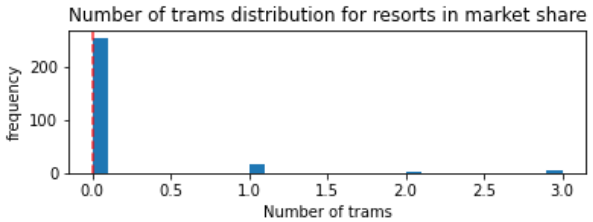


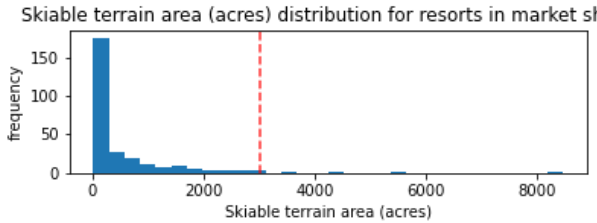












Position of Big Mountain Resort Regarding important Facilities

- Big Mountain Resort has clear advantage in several critical facilities influencing ticket price.

- These advantages justify a substantially higher price than the market average.

- Our model predict the price to be $95.87, with the expected mean absolute error of $10.39.

Modeling Results and Analysis

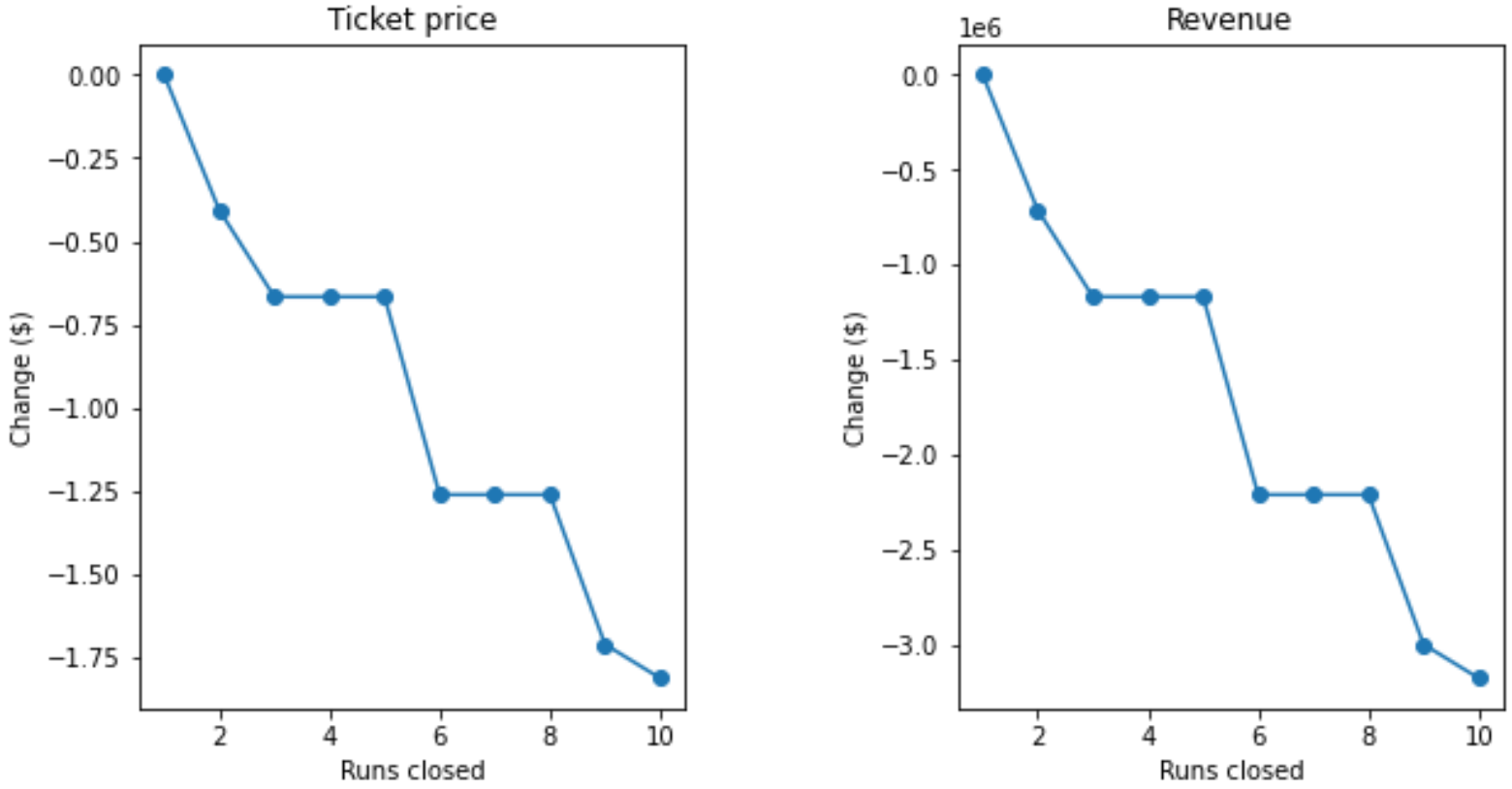
Scenario tests

- For future improvements, we explored several scenarios of facility changes that could help support higher ticket prices or cut costs without undermining the ticket price too much.
- We found adding a run, increasing the vertical drop by 150 feet, and installing an additional chair lift can increase support for ticket prices by 8.61 dollars and could amount to $15,065,471 this season.
- The model also suggests cutting costs by closing the least used runs. The result also indicate how they should test the number of runs to close as the following:

Modeling Results and Analysis

According to this scenario test, we suggest closing the least used run first and then testing the closing of the second least used run to see the effects

If the outcome is manageable, close the third, fourth, and fifth least used runs together and see the impact.



Predicted ticket price (left) and revenue (right) change in dollars (y-axis, note that for revenue it is in 1e6 dollars) after closing number of runs (x-axis).

Summary and Conclusions

- Based on the facilities Big Mountain Resort already have, we recommend they charge 95.87 dollars instead of 81 dollars for their tickets.
- Raising the current ticket price by 0.88 dollars can already cover the additional operating costs of the newly added chair lift.
- In the future, the business can increase influential facilities, such as vertical drop, to support a higher price, or cut costs in certain facilities that does not undermine the price, such as closing the least used run in the resort.
- In addition to the ticket price data, including other information, such as costs of the important facilities, can help build a more accurate prediction model to guide the pricing strategy.

Thank you!