Overview

With the increase of operation cost of 1.5M for the chair, how can Big Mountain Ski Resort set their ticket price to maximize sales without undermining the ticket price or support even higher ticket price while cutting down operational cost?
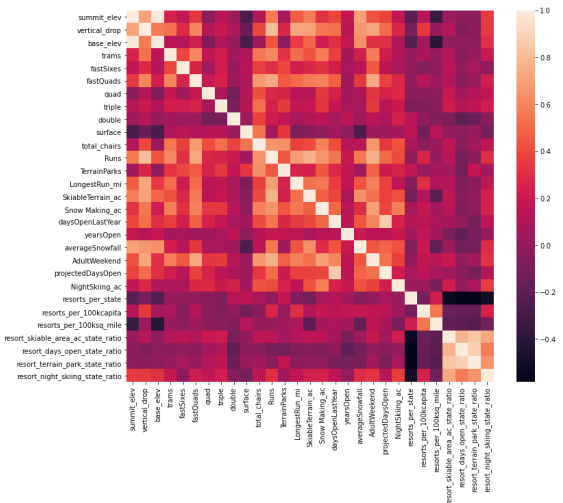
Goals

1. Identify key features that will justify the price increase
2. Identify ways to cut the cost of operation

Key Findings - Exploratory Analysis

The initial exploratory analysis indicated that there was a strong correlation between price and the features below:

- Vertical drops
- FastQuads
- Runs
- Total chairs
- Snow Making area
- Night skiing capacity

Data Modeling Key Findings

Upon further analysis our model supported the initial exploratory analysis and was able to identify not only which features influence our price but by how much.
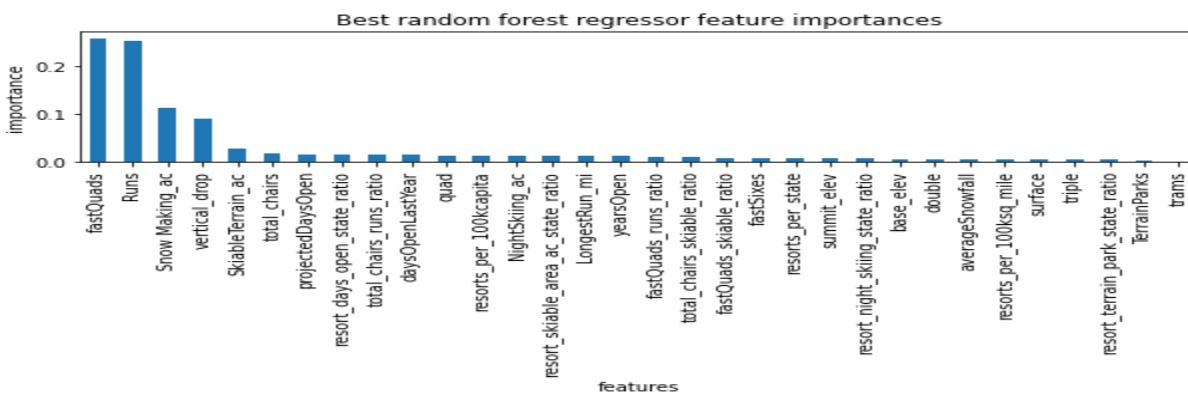
Shortlisted Options

1. Permanently closing down up to 10 of the least used runs. This doesn't impact any other resort statistics
2. Increase the Vertical drop by adding a run to a point 150ft lower down but requiring the installation of an additional chair lift to bring skiers back up, without additional snow making coverage
3. Same as number 2, but adding 2 acres of snow making cover
4. Increase the longest run by 0.2 miles to boast 3.5 miles length, requiring an additional snow making coverage of 4 acres

Recommended Option

Close down 5 of the least used runs, this will have two effects, the first being we need to lower our price per ticket for five days by $0.70 but this will also allow us to allocate snow making coverage to option 3. Adopting option 3 will see an increase of $9.90 per 5 day pass. After calculating the cost of the new chair, the slim loss of revenue and adding 2 acres of snow making coverage we expect to increase our profit by $1,680,000 by the end of the season. This option not just cuts the cost of operation but also increases our profit.

Conclusion

Our model indicated that we could increase the price for a 5 day pass by up to $15.00 and adopting the recommended option above puts us well below the $15.00 margin. This leaves room to maximize our profit while giving the business analysts room to use and explore. I would feel more comfortable if we were able to analyze more data on historical visitors, customers data, and operational cost of other facilities. This will not only provide a more accurate model but will consider the 'demand' on BMR.