



Big Mountain Resort



The Problem

- Big Mountain Resort, a successful Montana Ski Resort, has added a new chairlift increasing seasonal maintenance cost by \$1,540,000.
- We aim to recommend a strategy to implement by the start of this next ski season that allows Big Mountain Resort to avoid net loss by increasing ticket price to up revenue by at least \$1,540,000 each season.



Recommendation

- Increase ticket price by \$1 from \$81 to \$82.
- With an average of 350,000 people attending each season and each patron purchasing an average of 5 tickets, a \$1 increase would bring in an additional \$1,750,000 each season.
- Our model calculates that Big Mountain Resort should be charging \$94, a \$13 increase.
 - This is not unreasonable given that Big Mountain Resort maintains higher than median values in its vertical drop, amount of snow making, total number of chairs, number of fast quads, total number of runs, and length of its longest run; it is also has one of the largest skiable terrains.



Model Results

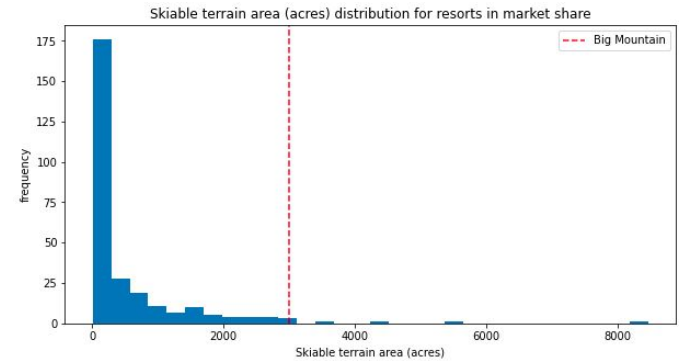
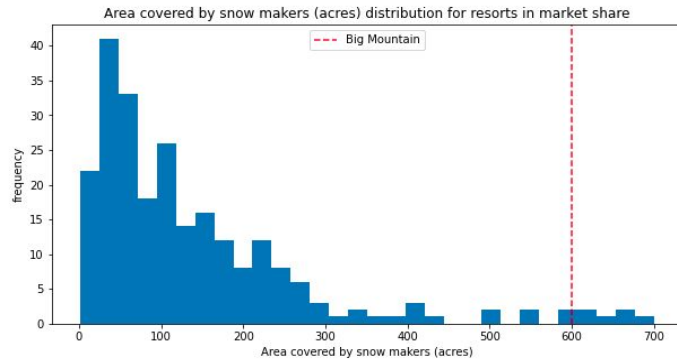
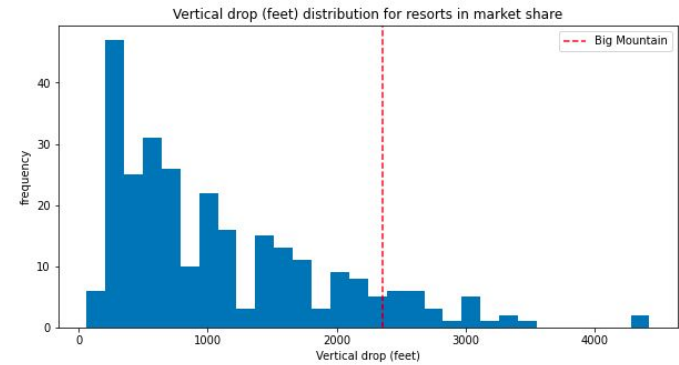
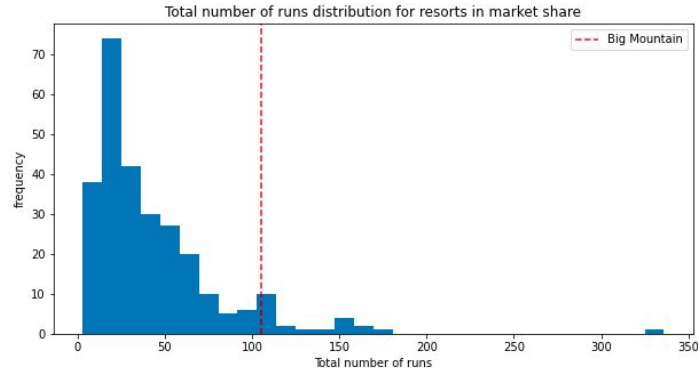
- Average Price of \$63
 - Using average as a pricing strategy, we expect this to be off by \$19, we can do better.
- Linear Regression
 - 8 important variables: Vertical Drop, Snow Making, Total Chairs, Fast Quads, Runs, Longest Run, Trams, and Skiable Terrain.
 - We expect to be off by about \$11.80.
- Random Forest Regression
 - 4 important variables: Fast Quads, Runs, Snow Making, and Vertical Drop.
 - We expect to be off by about \$9.50.
- We decide to use Random Forest Regression for our modeling.



Model Results

- Random Forest Regression predicts Big Mountain Resort tickets to be \$94.
- This can be justified looking at the resort's services compared to other resorts:
 - Big mountain is above median in number of runs, amount of snow making, height of vertical drop, and total skiable area.
 - See charts on next slide.

Comparisons





Summary

- Increasing ticket price by \$1 will increase revenue by enough to cover cost of the new chair lift.
- Future Improvements:
 - Increase the vertical drop by adding a run to a point 150 feet lower down requiring the installation of an additional chair lift to bring skiers back up, without additional snow making coverage. This provides reason to increase ticket price by \$1.99; assuming the average 350,000 customers spend and average of 5 days at the resort, Big Mountain's revenue would increase by \$3,474,638.