

Problem Identification



Context

- Big Mountain Resort, a Montana ski resort, accommodates about 350,000 skiers and snowboarders every year.
- A new chair lift was recently installed and increased the operating costs for the resort by \$1,540,000 this season.
- The resort's pricing strategy is to charge a premium above the average price of resorts in the same market, which imposes limitations.
- Big Mountain needs to have a better understanding of what will impact ticket price by examining facilities that are offered, rather than looking at external pricing and basing decisions off their choices.

Criteria for Success

Scope of Solution

Before the start of next season, determine resort value based on facilities offered to verify ticket price inflation, compare to resorts in the same market share, and offset the \$1,540,000 increase in operating costs to verify ticket price inflation.

In order to verify ticket price changes, a comparison of facilities at other resorts in the same market share is needed to consider a change in ticket price.

Constraints

- There are many directions this resort can go in to solve different problems.
- There may be some difficulty deciding what problems they want to pursue given the scope of what they want to accomplish.
- In addition, it needs to be taken into consideration that the data offered to tackle these issues has a lot of missing information and will require a thorough examination.

The business has shortlisted some options:

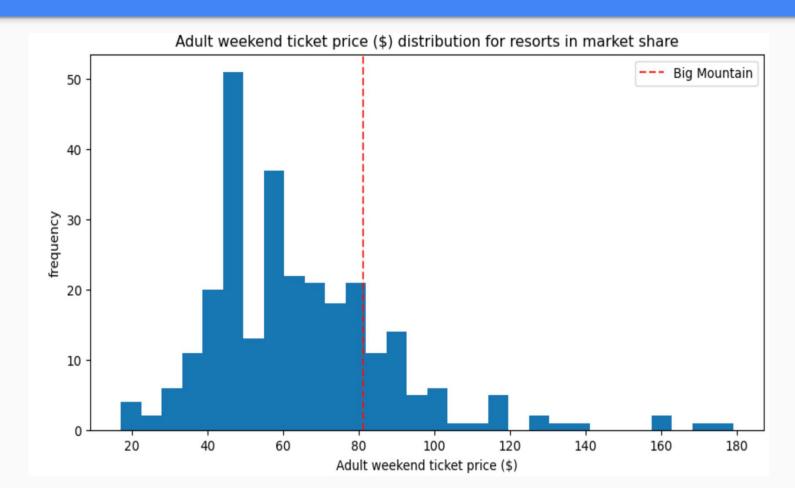
- 1. Permanently closing down up to 10 of the least used runs. This doesn't impact any other resort statistics.
- 2. Increase the vertical drop by adding a run to a point 150 feet lower down but requiring the installation of an additional chair lift to bring skiers back up, without additional snow making coverage. This scenario increases support for ticket price by \$1.99. Over the season, this could be expected to amount to \$3474638.
- 3. Same as number 2, but adding 2 acres of snow making cover, which makes no difference.
- 4. Increase the longest run by 0.2 mile to boast 3.5 miles length, requiring an additional snow making coverage of 4 acres, which also makes no difference.

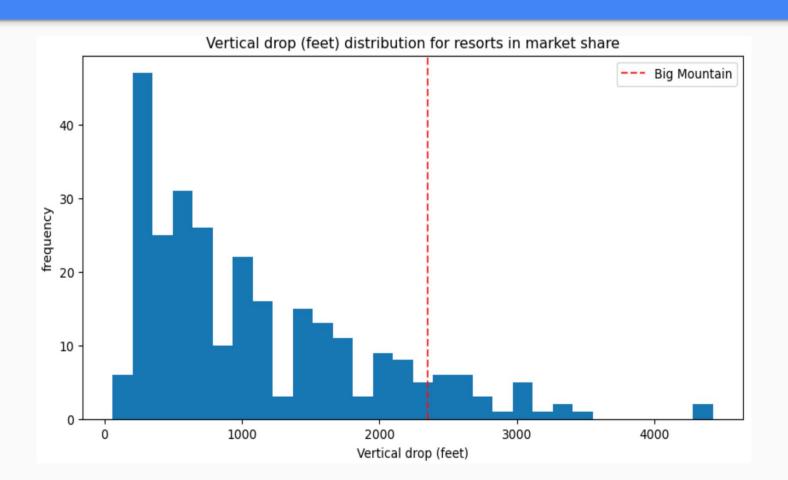
Recommendation & Key Findings

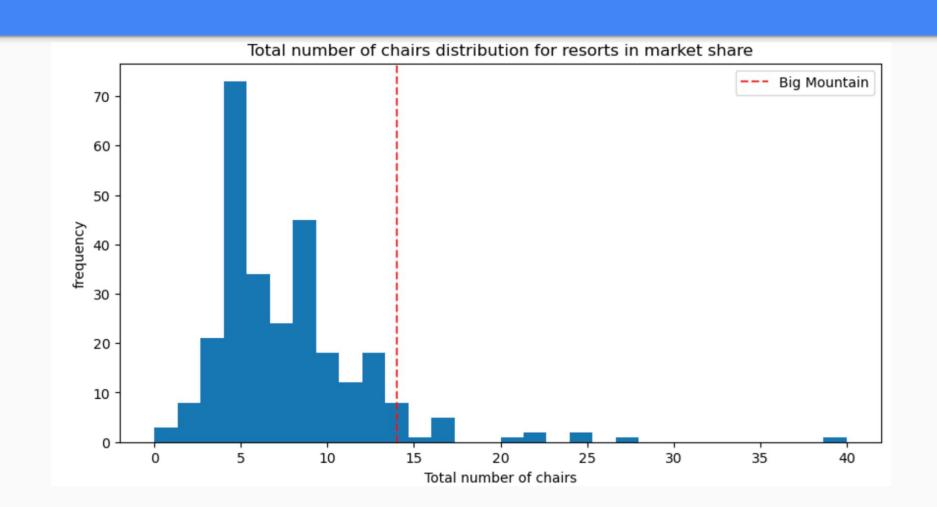
Big Mountain currently charges 81 USD for their tickets. Big Mountain Resort modeled price is \$95.87, even with the expected mean absolute error of \$10.39, this suggests there is room for an increase.

Modeling indicated that if the vertical drop is increased by adding a run to a point 150 feet lower down but requiring the installation of an additional chair lift. to bring skiers back up, without additional snow making coverage. This scenario increases support for ticket price by \$1.99. Over the season, this could be expected to amount to \$3,474,638.

Modeling results and Analysis







Recommendation:

Adding a run, increasing the vertical drop by 150 feet, and installing an additional chair lift.

- This scenario increases support for ticket price by \$1.99.
- Over the season, this could be expected to amount to \$3,474,638



Further Work

- While we noted closing runs does not impact ticket price until about 6 closures, we can't be sure how much it may benefit the decrease of other costs.
- Some businesses are over or under pricing their facilities. With that knowledge it is impossible to exactly pinpoint the perfect price.
- Instead we need more information of the overall costs of the investments to add new lifts or increase the length of a run.
- The modeling of these scenarios gives the potential to be used as a tool to investigate further.