Problem identification

Big Mountain Resort, a ski resort located in Montana with views, 105 trials to national park and forest for 350,000 people every year. Management has recently installed an additional chair lift to help increase the distribution of visitors across the mountain for $1,450,000. It is desirable to work with pricing strategy and cutting operational cost to find out an ideal ticket price in order to cover the cost in a year.

Recommendation and key findings

Key findings:

Big Mountain’s ticket price sits overall amongst all resorts for price and for just other resorts in Montana. Its vertical drop is doing well among resorts in Montana. Its snow making area is very high in the skiing market. It has amongst the highest number of total chairs. Big mountain also has 3 fast quads while most other resorts have no fast quads. It has great number of runs, one of the longest runs and largest amount of skiable terrain.

Recommendation, the business has shortlisted some options and they are evaluated by models.

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

3. Same as number 2, but adding 2 acres of snow making cover

4. Increase the longest run by 0.2 mile to boast 3.5 miles length, requiring an additional snow making coverage of 4 acres

Modeling results and analysis

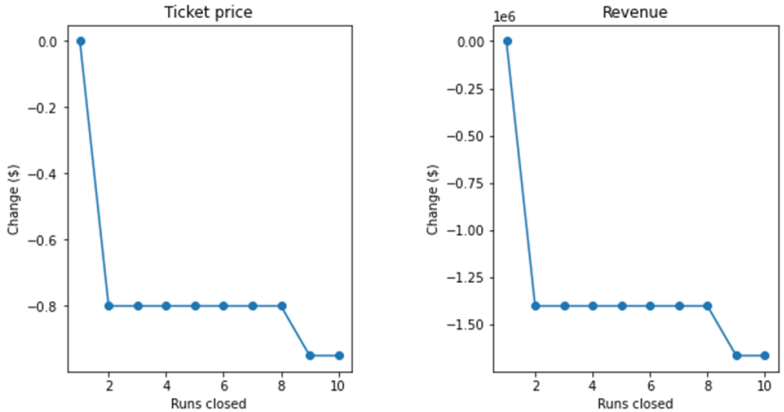
Calculate Expected Big Mountain Ticket Price From The Model

Big Mountain Resort modelled price is $108.30, actual price is $81.00.

Even with the expected mean absolute error of $10.24, this suggests there is room for an increase.

1. Permanently closing down up to 10 of the least used runs. This doesn't impact any other resort statistics.

The model says closing one run makes no difference. Closing 2 and 3 successively reduces support for ticket price and so revenue. If Big Mountain closes down 3 runs, it seems they may as well close down 4 or 5 as there's no further loss in ticket price. Increasing the closures down to 6 or more leads to a large drop.



2. Big Mountain is adding a run, increasing the vertical drop by 150 feet, and installing an additional chair lift.

This scenario increases support for ticket price by $3.00, over the season this could be expected to amount to $5250000. The increase in price is small and makes no difference but the gain over the season is considerable.

3. Adding 2 acres of snow making.
This scenario increases support for ticket price by $3.00 as well.

4. Increasing the longest run by .2 miles and guaranteeing its snow coverage by adding 4 acres of snow making capability.
It has no difference or impact based on model prediction.

Summary and conclusion

To sum up the modeling and its results, here comes up a summary:

After 4 modeling scenarios, the solution is closing down 5 used runs, 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 and Increase the vertical drop by adding a run to a point 150 feet lower down but adding 2 acres of snow making cover.