

Big Mountain Resort Business Strategy

Problem Statement

- What will be the optimized ticket price this season considering the current Big Mountain Resort's facilities?
- What will be the best strategy to increase revenue by either cutting costs without undermining the ticket price or charging an even higher ticket price?

Context

- Every year about 350,000 visitors come to ski or snowboard at Big Mountain Resort located in Montana.
- Recently, an additional chair lift has been installed which increases operating costs by \$1,540,000 this season.
- The resort's pricing strategy is to charge a premium above the average ticket price in its market segment.
- Big Mountain Resort wants to find out whether its facilities can support a better price and needs some guidance on how to change the current facilities to cut costs or to support a higher price.

The Best Pricing Strategies

- The pricing prediction model suggests that Big Mountain Resort can charge up to **\$95.87** with the current facilities.
- Big Mountain Resort can successfully keep costs down without lowering the price by closing one run when other things are unchanged.
- If Big Mountain Resort adds a run with the increased vertical drop by 150 feet, they also need to install an additional chair lift. In this case, the model supports a markup of \$1.99, and the expected revenue increase is \$3474683.

Modeling Results

- There is no obvious pattern in the relationship between the ticket price and the state-related features. This supports that all states can be considered equally to build a pricing model.
- The random forest model shows that the top 4 important features are fastQuads, Runs, Snow Making_ac, and vertical_drop.

Modeling Results

- The adult weekend ticket price of Big Mountain Resort is currently \$81. Compared with the national average price, \$64.2, it seems that they sell a ticket at a high price.
- The recommended price is \$95.87 with the current facilities. Since the expected mean absolute error is \$10.39, this suggests consumers are willing to pay more.

Modeling Results

The results of reviewing 4 possible scenarios

1. After analyzing the effect of closing runs on price when all other things are unchanged, the model shows that closing one run makes no difference.
2. If Big Mountain Resort adds a run with the increased vertical drop by 150 feet, they also need to install an additional chair lift. In this case, the model supports a markup of \$1.99, and the expected revenue increase is \$3474683.
3. However, adding 2 acres of snow-making area on top of the previous scenario² or increasing the longest run by .2 miles with additional 4 acres of snow-making make no difference in the ticket price.

Conclusion

- Though Big Mountain Resort already charges a high price compared to the market average, our analysis shows that its facilities can support further price increases.
- Based on the expected number of visitors, the additional operating cost per ticket by a recently installed chair lift is \$0.88. An increase in the price of more than \$0.88 can offset the increased cost.