# Big Mountain Resort Pricing Strategy Summary

Big mountain resort finds themselves with an additional operating cost of approximately 1.5 million dollars after opening a new ski lift. To compensate for this cost, data on 330 other ski resorts was analyzed to help develop a pricing strategy. Based on this information, there does indeed seem to be evidence to support an increase in ticket prices and a reduction in other operating costs that can offset the new ski lift and potentially raise revenue in the future even further.

Data provided by the database manager, gave information about the presence of facilities and other features of 330 resorts in and out of Montana. After imputing missing data, the first task was to determine the affect the various facilities and features had on pricing across the market. The analysis shows that eight features had the most impact, and it was those that were used in the pricing strategy. Those eight are: vertical drop, snow making acreage, total number of chairs, number of fast quads, number of runs, longest run, number of trams, and amount of skiable terrain.

Before analyzing results of the random forest model, an intuitive sense of Big Mountain’s ticket price placement can be gained from observing all resort ticket prices together. In the figures below, it is apparent that Big Mountain’s ticket price may be high for Montana but potentially low for the entire market.

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When we compare the number of and quality of facilities with the other resorts, Big Mountain ranks above average. The figures below show how the other resorts compare. This alone suggests there may be room for a price increase.

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Big Mountain’s current ticket price is $81. The random forest model predicts the price should be $95.87. Even with the model’s error of $10.39 and no other adjustments to operations, a price increase to $85 is justifiable.

The expected number of guests for the coming season is 350,000. A ticket price increase of $4 will not cover the new operating costs of the new ski lift. So, other scenarios were explored to justify a larger price and a reduction of operating costs.

The model shows that shutting down one of the least used ski runs will have no effect on ticket pricing. Shutting down up to five runs, will affect pricing less than seventy cents. Beyond that, a significant drop in pricing occurs.

Another scenario would add another run and 150 feet of vertical drop. Along with the new chair, this would support an increase of $8.61. Such an increase would compensate for the new lift’s operating costs. Additionally, if two more acres of snow making were added, the model would support an increase of $9.90.

Certain assumptions are made that this model relies on. Particularly, that the other resorts are pricing their tickets correctly. Several resorts have comparatively high prices that may be pulling the market average up. Additional information on operating costs and number of tickets sold would be useful to better refine this model.