# Big Mountain Pricing Model Report

### Outcome

The model recommends raising the price of an Adult Ticket to $100.

### Explanation

According to the data, the most important features in a ski resort are:

* Number of Fast Quads
* Number of Runs
* Area covered by Snow Making Machines
* Vertical Drop

The rest of the factors are noticeably less important. This can be seen in the bar chart on the final page of this report. The following table shows Big Mountain’s position in each of the four top features. This is also shown in histograms on the next page.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Fast Quads | Runs | Snow Making Acres | Vertical Drop | Price |
| Big Mountain Has: | 3 | 105 | 600 | 2353 | $81 |
| Percentile: | Top 5% | Top 7% | Top 3% | Top 11% | Top 19% |

Big Mountain is in the top 10% in each of the three most important features and is very near the top 10% in the fourth. When all of those things are put together, Big Mountain is in the top 5% of resorts nationwide! And yet it has a price well outside of the top 10%. As it stands, a ticket to ski at Big Mountain is an excellent bargain. A price increase to $92 per ticket would put the resort just barely in the top 10% in terms of price. At the recommended $100, Big Mountain would be in the top 6% of resorts, quite close to its percentile in terms of facilities.

The four scenarios were tested, and the impacts are shown below. For Scenario 1, the table assumes 5 run closures.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Scenario 1** | **Scenario 2** | **Scenario 3** | **Scenario 4** |
| Change in Supported Price: | -$1.14 | $9.02 | $11.26 | $0 |
| Change in Expected Revenue: | -$2,000,000 | $15,791,667 | $19,708,333 | $0 |

The best Scenarios for increasing expected revenue are those that play to Big Mountain’s strengths, increasing the vertical drop and adding an additional lift. The difference between Scenario 3 and Scenario 4 shows that adding snow making machines has a big impact when paired with adding to the other important features, but little-to-no effect when changing less important features. It can be thought of as a multiplicative rather than an additive improvement.

### Scenario 1

The high number of runs at Big Mountain is an important selling feature, according to the pricing model. Reducing the number of runs lowers the supported price. However, it does so in a stepwise fashion. The graph below shows: At one run closure, there is no change in supported price. The next two run closures result in price drops, but then the price plateaus until the 6th run closure, at which point there is another plateau. If the resort is considering closing three runs, it may as well close 5 runs, further reducing operating cost while not affecting supported price. The recommended number of runs to close in order to lower operating costs without dire effects on supported price is either 1 (no price drop), 5 (same price drop as 3), or 8 (same price drop as 6). Take advantage of the plateaus in the run-closure-to-price-drop relationship.

Chart, line chart

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### Limitations

This model is based on the features offered at each resort and the price charged at that resort. It does not predict revenue or profitability. The model cannot guess how a price change would impact customer behavior. Would fewer customers come? Would the same number of customers come, but shorten their stay? We do not have the information necessary to optimize the price for maximum revenue or for maximum profit.

It will be up to Big Mountain’s leadership analysts to determine the best price. But the analysis done here provide ample evidence that the resort should enact a price increase. Perhaps a pilot study on the effect of price changes could answer that question. Or perhaps raising the price slowly, say $5/year rather than $19 all at once, can soften negative effects of the price increase.

Chart, histogram

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Chart, box and whisker chart

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1: Price by State