



Big Mountain Ski Resort Pricing Analysis

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Context

Big Mountain Ski Resort is among the 10 largest ski resorts in the U.S. Big Mountain offers over 3,000 skiable acres, 85 marked runs and 11 lifts including two high-speed quad chairlifts. The resort also boasts an impressive vertical drop of 2,353 feet. The base elevation of the mountain is 4,464 feet and the summit is 6,817 feet. The longest run is approximately 3.3 miles.

Big Mountain, also known as Whitefish Mountain Resort, first opened on December 14, 1947. In its first year, the T-bar ski lift ticket was \$2 and a hamburger was only a quarter. Since then, the resort has maintained a competitive lift ticket price when compared to in-state and national competitors.

Recently, Big Mountain has constructed a new chair lift to add accessibility to other parts of the mountain. The installation of the new lift has increased operating costs by \$1.54 million for the season. These additional costs have spurred management to review its current pricing strategy. That strategy is to simply charge a small premium above the average ticket price of resorts in the same target market as Big Mountain.

Problem Identification

The specific issue that leadership is asking, what opportunities exist for Big Mountain to select a better price point for its ski lift ticket prices, how can this new price point take Big Mountain's facilities and amenities into account, and where can costs be reduced to ensure a profit margin of 9.2%?

There are **4 scenarios** that will be reviewed:

1. Close up to 10 of the least used runs.
2. Add a run, increase vertical drop by 150 feet, and install a new chair lift
3. Add a run, increase vertical drop by 150 feet, and install a new chair lift AND add 2 acres of snow making.
4. Increase the longest run by .2 miles and add 4 acres of snow making

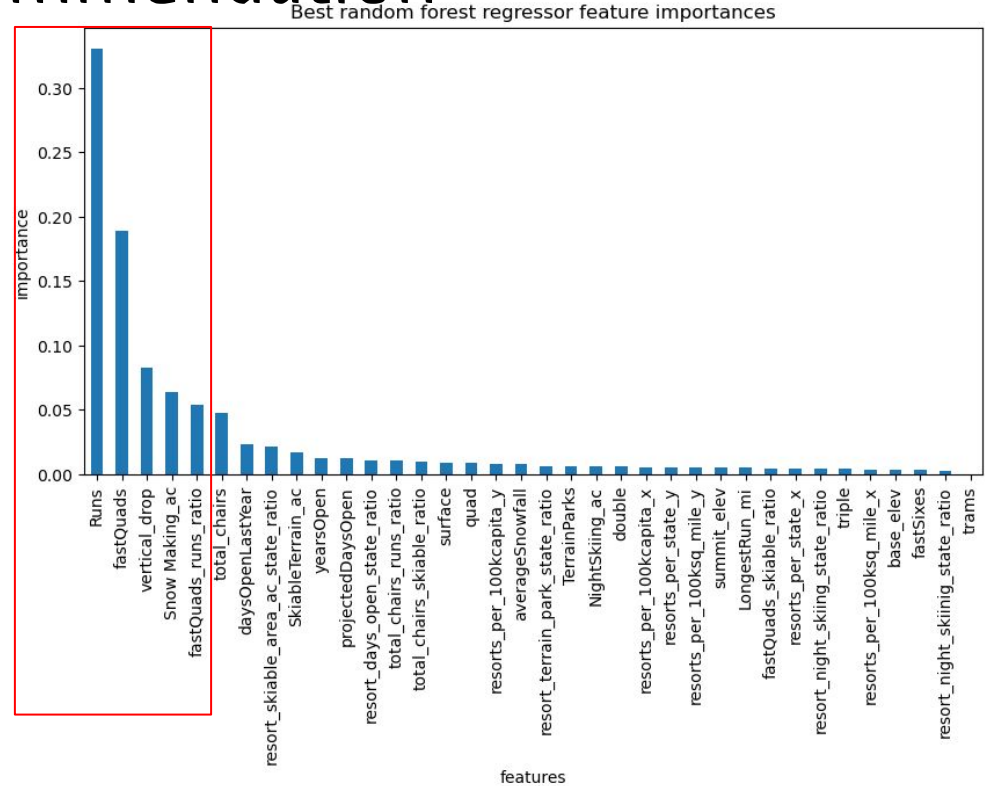
Key Findings and Recommendation

The four features that were most closely correlated to price are:

1. Runs - total number of runs
2. Fast Quads - number of fast four person chairlifts
3. Vertical Drop - distance from the summit to the base of the mountain
4. Snow Making - capacity of snowmaking ability

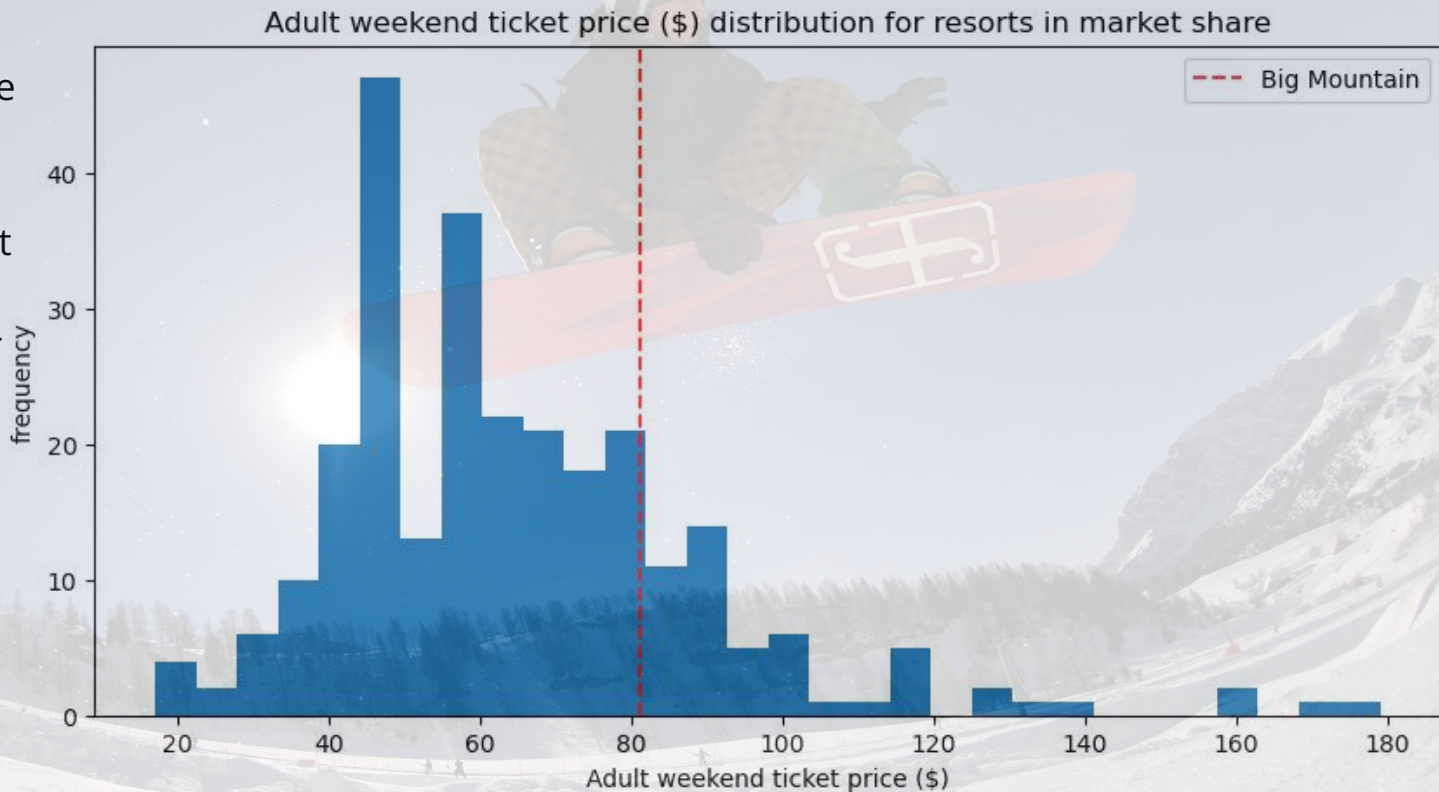
The average price (mean) of all resorts is \$64.37.

Random forest model suggests that the optimal price point is approximately \$ 94.

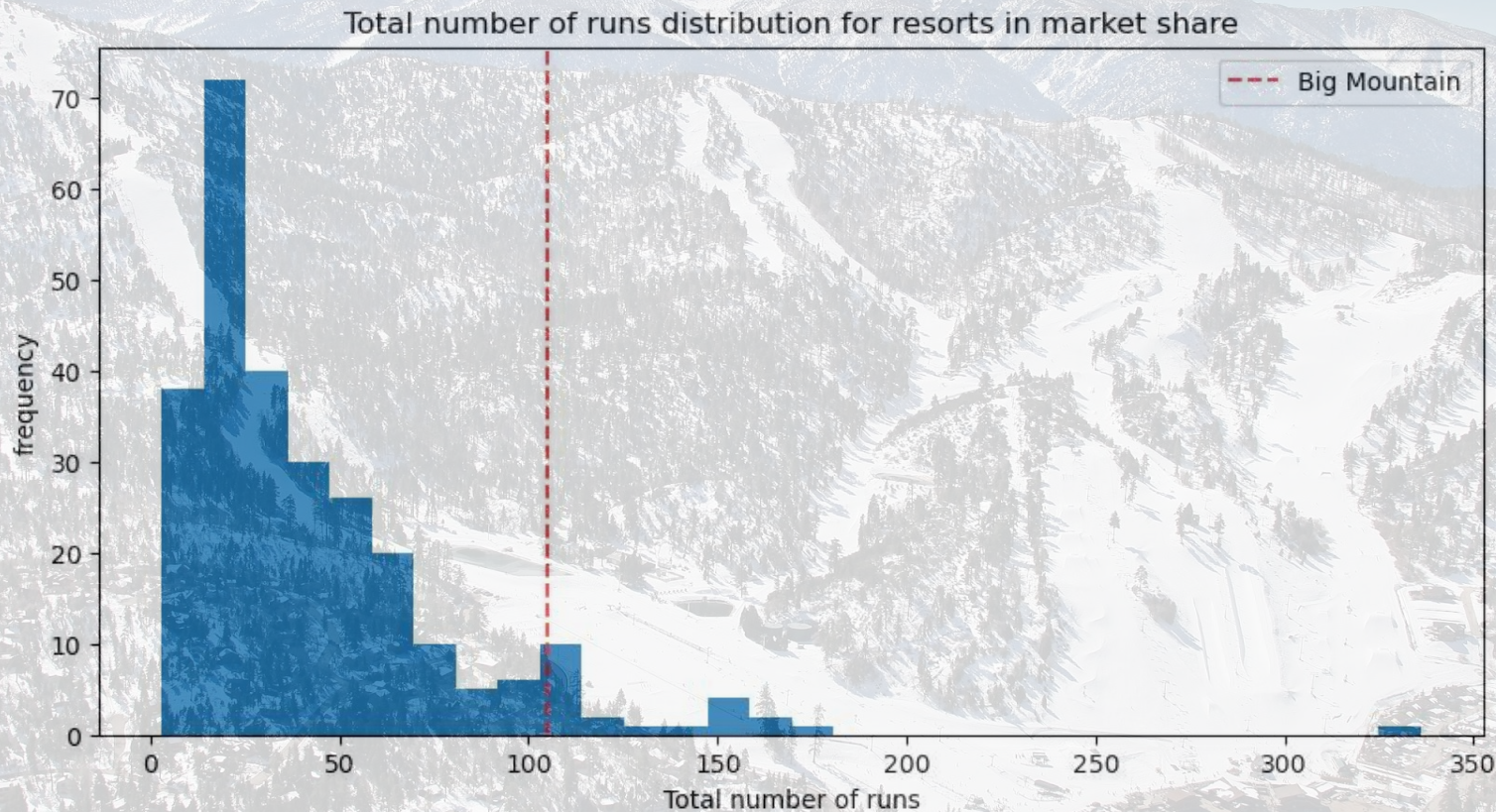


How does Big Mountain Measure Up? Price...

Big Mountain's current ticket price is \$81. This puts us well above the average of \$64 but much lower than resorts with fewer facilities and amenities.

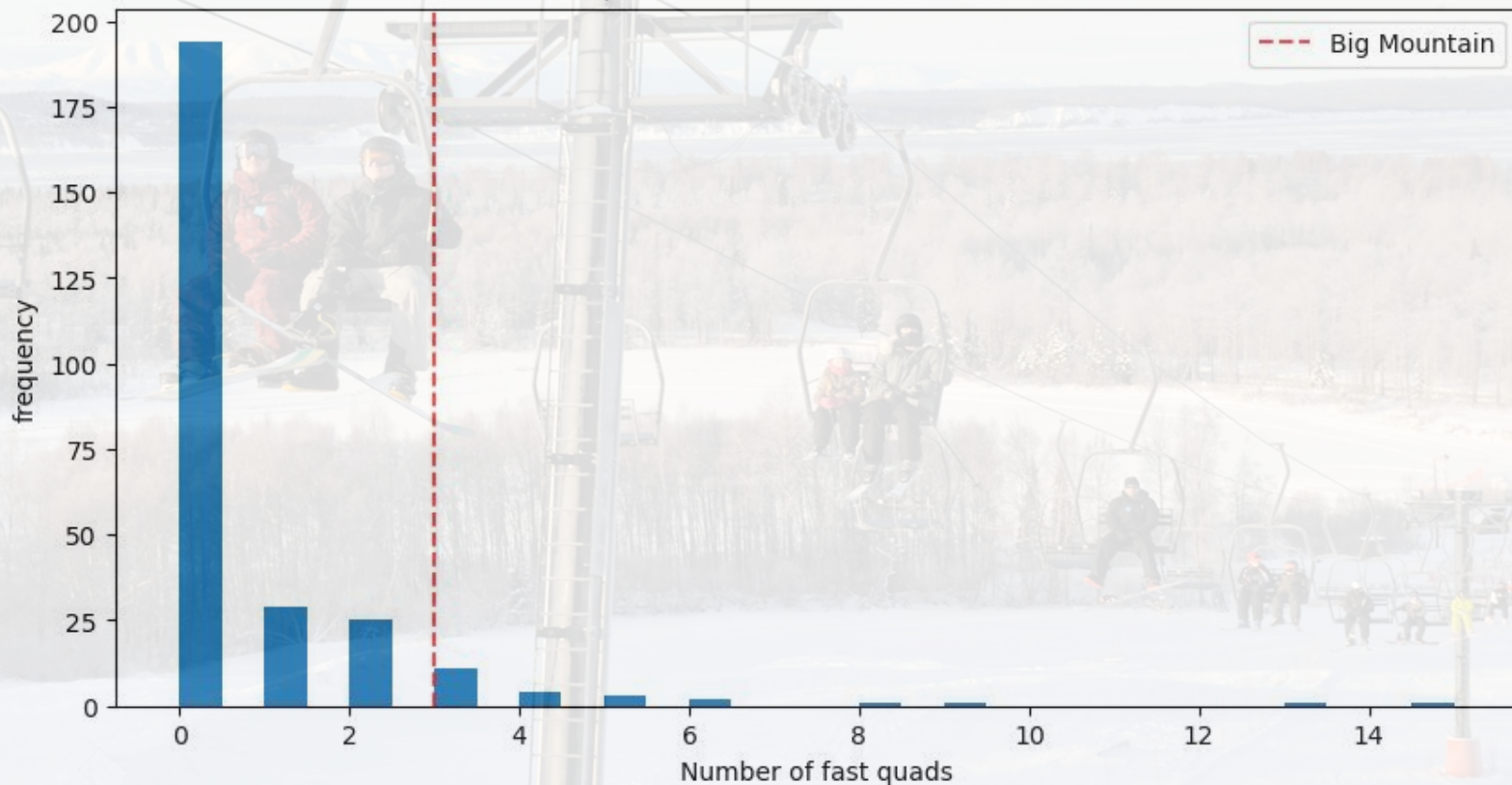


How does Big Mountain Measure Up? Runs...



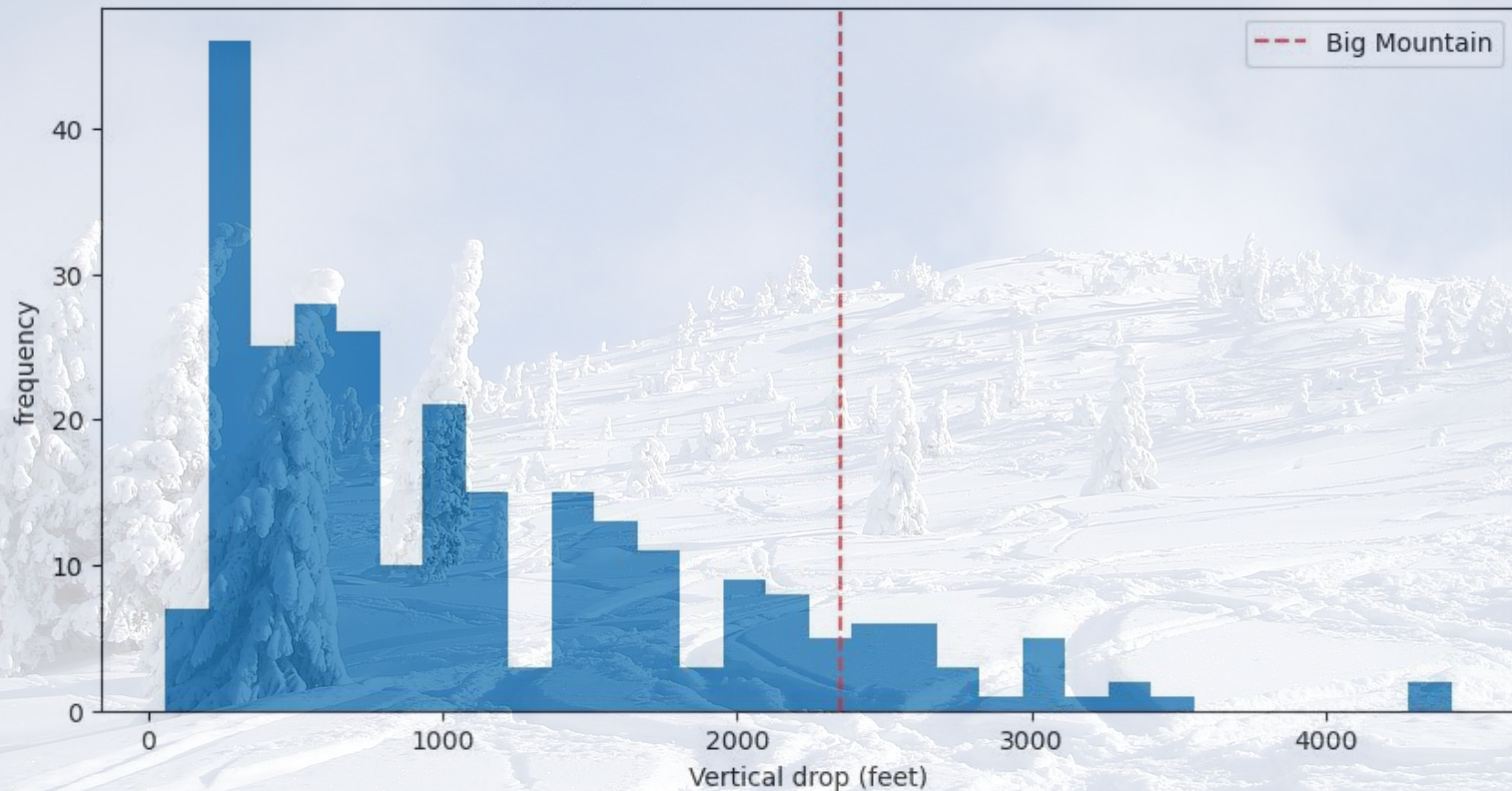
How does Big Mountain Measure Up? Fast Quads...

Number of fast quads distribution for resorts in market share



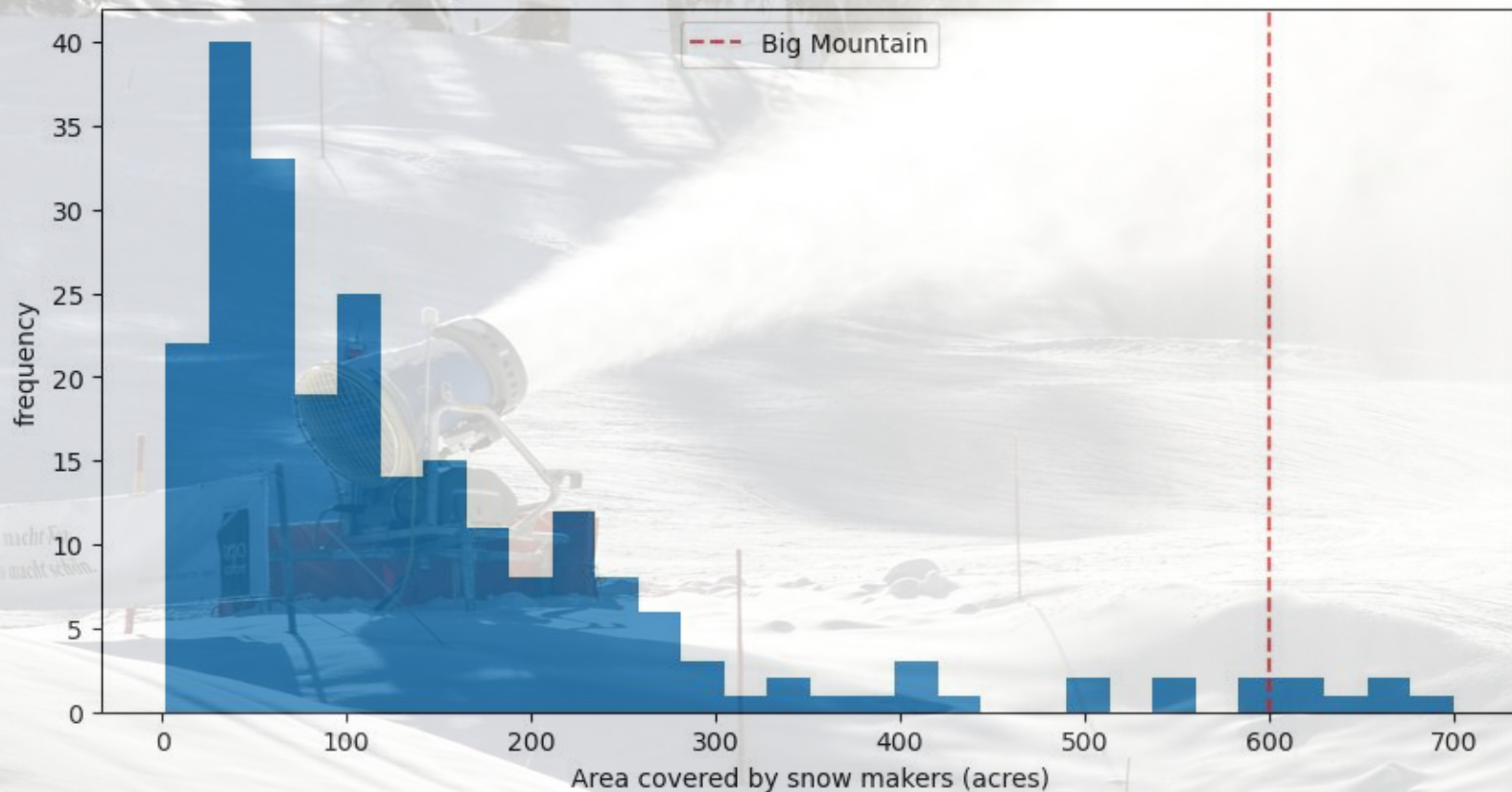
How does Big Mountain Measure Up? Vertical Drop...

Vertical drop (feet) distribution for resorts in market share



How does Big Mountain Measure Up? Snow Making...

Area covered by snow makers (acres) distribution for resorts in market share



Recommendation

Management requested that 4 scenarios be considered in the analysis: 1) Close up to 10 of the least used runs. 2) Add a run, increase vertical drop by 150 feet, and install a new chair lift. 3) Add a run, increase vertical drop by 150 feet, and install a new chair lift AND add 2 acres of snow making. 4) Increase the longest run by .2 miles and add 4 acres of snow making. The model suggests the following:

1. Scenario 1: The model shows that Big Mountain can close one run with 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 to 6 or more leads to a large drop.
2. Scenario 2: Supports a ticket price increase by \$15.27. Over the season, this could be expected to amount to \$26,721,154
3. Scenario 3: Supports a ticket price increase by \$15.88. Over the season, this could be expected to amount to \$27,798,077
4. Scenario 4: Does not support a ticket price increase.

Conclusion

- Big Mountain should incorporate a run closure strategy, as analyzed in scenario 1, to reduce costs. The data does not include operational costs so it is unclear how much can be saved through implementing option 1.
- Big Mountain should also implement EITHER scenario 2 or 3 as each option will increase revenues by approximately \$27M and allow for a ticket price increase of approximately \$15.
 - Costs to construct and implement these options were not included, the cheaper scenario should be chosen.
 - The reason why only one of these scenarios should be chosen is because the total increase to ticket prices will be over \$30 if both options are chosen. This would bring the Big Mountain ticket price to over \$110, the market would not bear the dramatic increase in ticket price.
 - Implementing one of these scenarios -2 or 3 - would allow Big Mountain to raise its current price of \$81 to \$96.