

Data-Informed Ticket Pricing & Business Suggestions

Jonathan Jacobs

Wed. October 7th, 2020

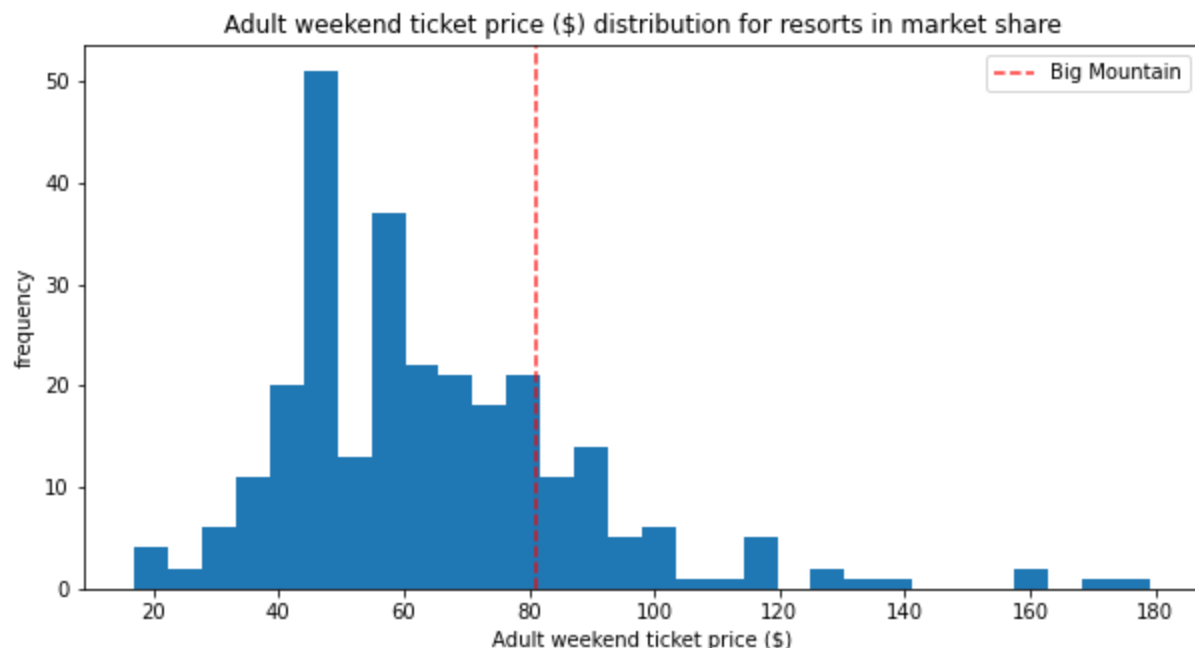
Big Mountain Resort

Big Mountain Resort offers its 350,000 annual visitors high-end facilities and the stunning environment of Glacier National Park and Flathead National Forest. The resort's pricing strategy has historically been to charge a premium for its market segment, without consideration for the facilities it provides. As a result, the business is not able to assess the importance of some facilities over others, and in turn, make business decisions that positively influence their bottom line.

In addition to ticket pricing, this analysis models four scenarios for either cutting costs or increasing revenue, and makes suggestions for which to pursue:

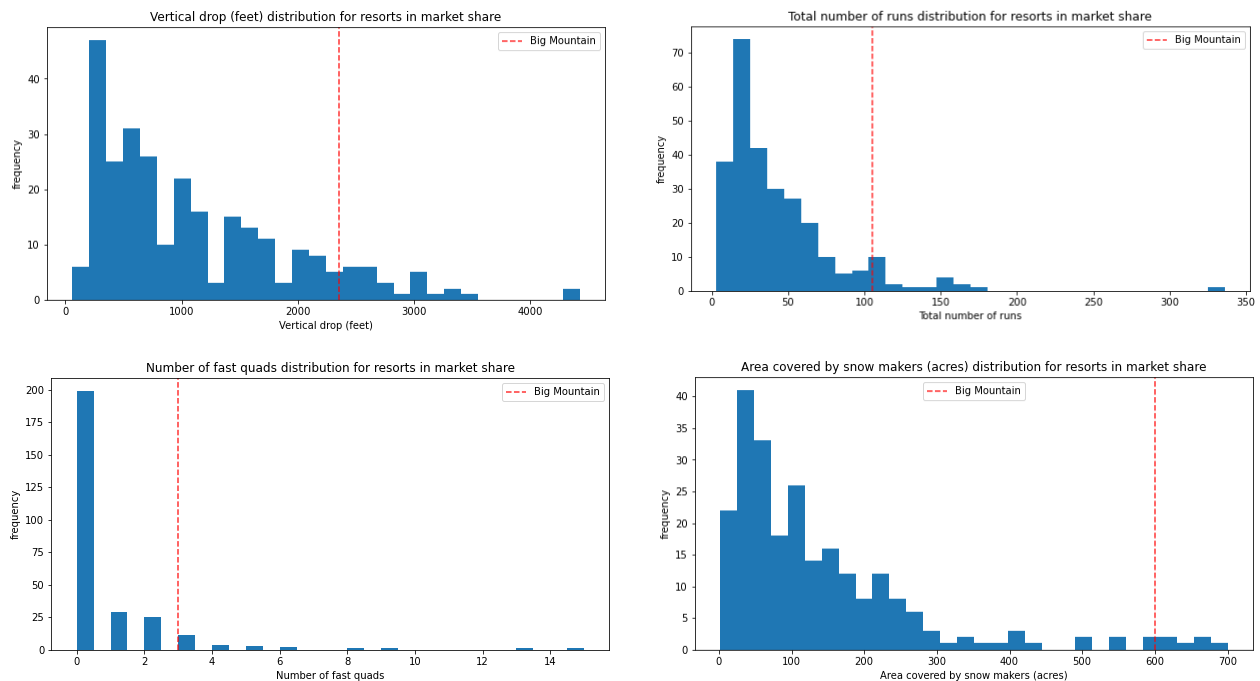
1. Permanently closing down up to 10 of the least used runs. This doesn't impact any other resort statistics.
2. Increase the vertical drop by adding a run to a point 150 feet lower down but requiring the installation of an additional chair lift to bring skiers back up, without additional snow making 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

Ticket Pricing



Big Mountain Resort's modeled price is \$95.87, a \$14.87 increase over the current price of \$81.00. Over the course of one season, with 350,000 visitors buying an average of 5 tickets each, that amounts to \$26M in additional revenue for the resort. Even with the expected mean absolute error of \$10.39, the modeling supports raising the ticket price.

We see in the figure above that within the market segment Big Mountain currently charges a premium, but is comparable to other resorts, and out-priced by many. The model indicates that fast quad lifts, total number of runs, snow making acreage, and vertical drop are the most important factors in determining ticket price. In the graphs below the red line indicates Big Mountain.



In these figures it's clear that Big Mountain provides facilities at the top of its market segment. Notably, it has three fast quad chair lifts, where most resorts in the segment have zero. It's among the resorts that have the most area covered by snow makers, offering consistency and dependability to its skiers and snowboarders. The total number of runs offered and the vertical drop are similarly high for Big Mountain's market share.

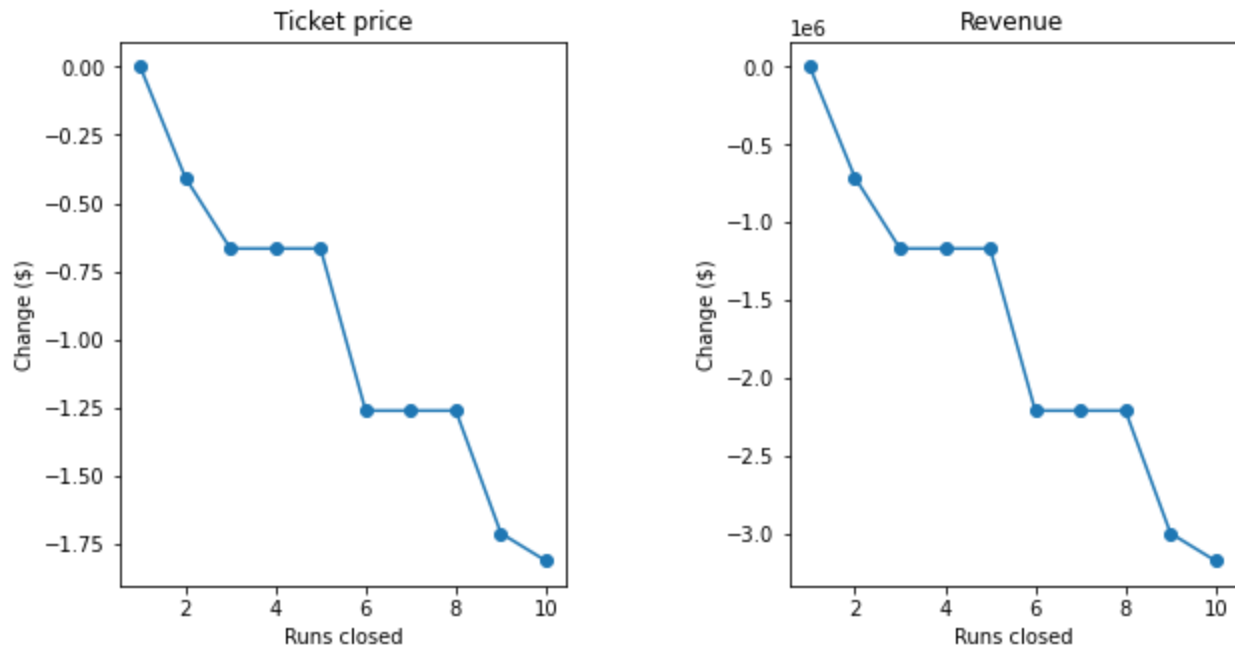
These figures provide evidence for what the model indicates: Big Mountain Resort undercharges for the facilities it offers its visitors.

Cutting Costs or Increasing Revenue

Business leaders at Big Mountain were considering four strategies to either cut costs or increase revenue.

1. Permanently closing up to 10 runs

The model supports closing one run without and consequences for the ticket price, as shown in the figure below. Closing more runs, however, has an impact on ticket price and revenue accordingly. In the absence of data on maintenance costs for specific runs, it's not clear whether closing more than one run is a profitable decision.



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

This scenario is strongly supported by the model, which indicates support through a \$1.99 ticket price increase because of these changes. Over the course of a season, the modest price increase would lead to nearly \$3.5M in additional revenue. Assuming the new chair lift would similarly cost 1.5M per season, the new run would still be considerably profitable.

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

A small increase in snow making cover does not make a difference in the scenario above.

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

In our model, the longest run distance was not an important factor in price. Increasing the longest run by 0.2 miles does not support an increase in ticket price.