

Charging Premium Determination

Big Mountain Resort

Is the right premium charged among the competitors?

Background & Questions:

There's a suspicion that Big Mountain is not capitalizing on its facilities while facing the competition in the marketplace. With the recently installed chair lift of \$1.54M, the management should know

- (1) What's **the competitive premium** to charge to stay competitive in the market?
- (2) What's **the additional reasonable investment** to charge higher premium?

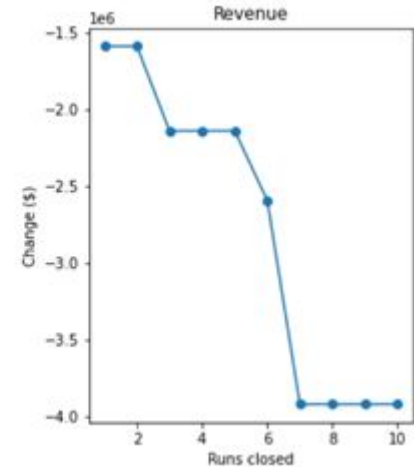
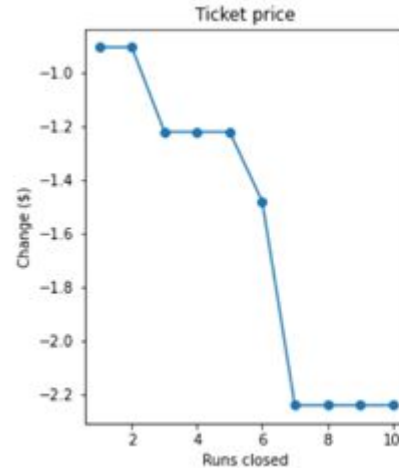
Premium Has Room to Increase!

According to the prediction model and based on the assumption that the other resorts accurately set their prices according to what the market supports, **Big Mountain Resort recommended (modelled) price is \$91.43; from the current price of \$81.00, the model indicates that there's room for an increase.**

Potential Investment Scenarios (1)

- **Permanently closing down up to 10 of the least used runs.** This doesn't impact any other resort statistics.

The model says closing one run makes 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 down to 6 or more leads to a large drop.



Potential Investment Scenarios (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
 - a. This scenario increases support for ticket price by \$0.22; Over the season, this could be expected to amount to \$388,889
- Same as the previous, but **adding 2 acres of snow making cover**
 - a. This scenario increases support for ticket price by \$0.22; Over the season, this could be expected to amount to \$388,889. Such a small increase in the snow making area makes no difference!
- **Increase the longest run by 0.2 mile to boast 3.5 miles length**, requiring **an additional snow making coverage of 4 acres**
 - a. No difference whatsoever. Although the longest run feature was used in the linear model, the random forest model (the one we chose because of its better performance) only has longest run way down in the feature importance list.

Increase the Premium Without Additional Investment

With the research on potential capitalization scenarios, there doesn't seem to be any profitable benefit to charge higher premium to offset the additional investment. The recommendation stays as **to increase the premium from the current price of \$81 to \$91 (an increase of 12%)** and the resort can stay competitive in the market in the short term.