

Problem Statement Worksheet (Hypothesis Formation)

How should Big Mountain Resort select their facilities price in the market segment what it deserves based on the quality of their facilities?

1 Context

Big Mountain Resort is a ski resort located in Montana. Big Mountain is not capitalizing on its facilities as much as it could. Basing their pricing on just the market average does not provide the business with a good sense of how important some facilities are compared to others. The business wants some guidance base on the data of 330 resorts in the US.

2 Criteria for success

- The increase in the business income.
- More customers prefer to visit there.

3 Scope of solution space

- The business might loose high big of customers due to high price and the quality of facilities.

4 Constraints within solution space

- Selecting a price that is not compatible with the market price.
- The quality of the data that is from 330 resorts.

5 Stakeholders to provide key insight

- Management

6 Key data sources

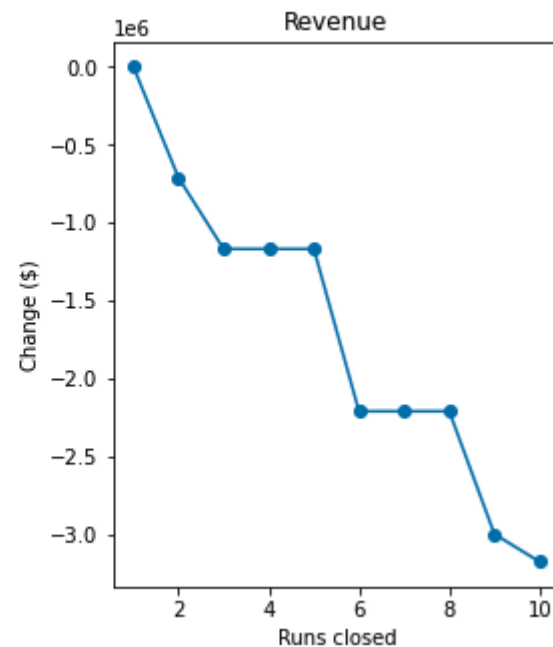
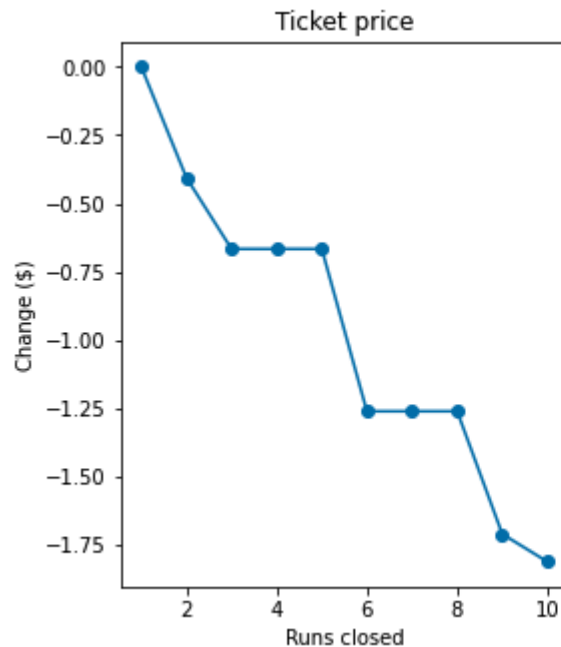
- CVS file that has data about 330 resorts in US.

Recommendation and key findings

There are three scenarios we can discuss

Scenario 1

This model says closing one run makes no difference. Closing 2 or 3 successively reduces support for ticket price and revenue.



Senario 2

In this scenario, Big Mountain is adding a run, increasing the vertical drop by 150 feet, and installing an additional chair lift.

But this scenario increases support for ticket price by \$1.99
Over the season, this could be expected to amount \$3,474,638

Scenario 3

In this scenario, you are repeating the previous one but adding 2 acres of snow making.

This scenario increases support for ticket price by \$1.99 by the end of the season it will not affect total income.

Scenario 4

In this scenario, increasing the longest run by 0.2 miles and guaranteeing its snow coverage by adding 4 acres of snow making capability.

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.

Big Mountain currently charges \$81 for each adult over the weekend. Based on the model, Big Mountain Resort's modeled price is \$95.87. The ticket price was suggested by the model that shows the quality of Big Mountain's facilities in the marketplace.