# BIG MOUNTAIN RESORT PRICING STRATEGY

Lori He 02.09.2023

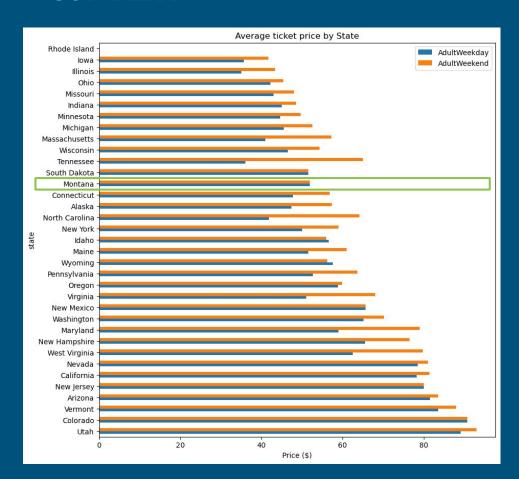
#### PROBLEM IDENTIFICATION

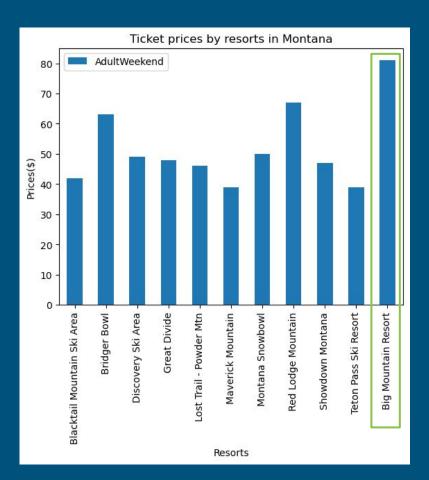
Additional cost (newly installed chair lift operation): \$1,540,000

How much room to increase ticket price in order to compensate for the cost?

Any new facility using strategy to cut the total cost?

#### **CONTEXT**

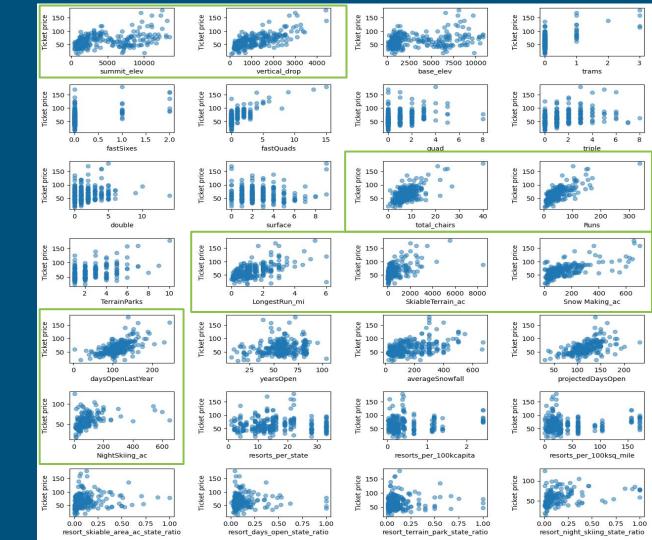




#### **Facilities**

### Facility/fact with positive correlation:

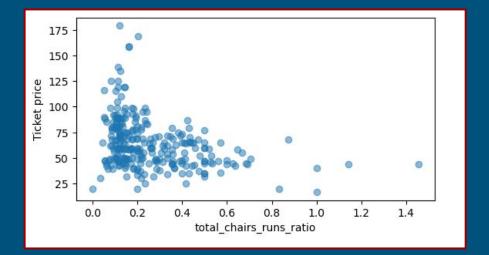
- Summit elevation
- Vertical drop
- Total chairs
- Runs
- Longest run
- Skiable terrain
- Snow making
- Days open last year
- Night skiing

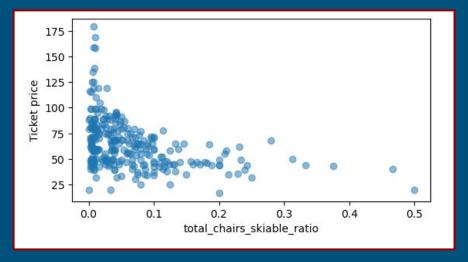


#### **Facilities**

## Facility ratio with negative correlation:

- Total chairs / Runs
- Total chairs / Skiable terrain





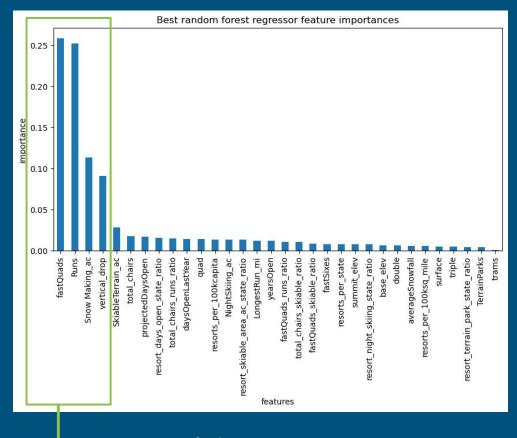
#### Models

#### **Linear Regression**

Cross-validation score: Mean 10.5, STD 1.622

#### **Random Forest**

Cross-validation score: Mean 9.645, STD 1.353



Important facilities:

Fast quads, Runs, Snow making, Vertical drop

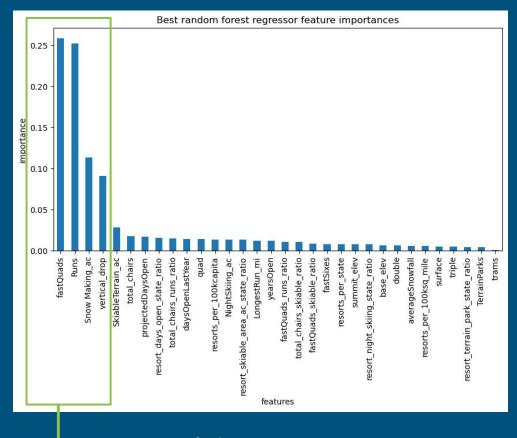
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#### Price Prediction

The predictive model suggested that suggested that there is room to increase the ticket price of Big Mountain Resort. The new price can range from <u>\$85.48</u> (most conservative) to <u>\$95.87</u> (balanced).

Assuming the number of total visitors doesn't change, with the conservative strategy, the annual revenue will increase by \$5,204,297; with the balanced strategy, the annual revenue will increase by \$1,566,696. Both can compensate for the additional operating cost of the new chair lift (\$1,540,000).

#### Facility Strategy

Among the total market share, Big Mountain has vertical drop beyond the average, is high up the league table of snow making area, is amongst the highest number of total chairs and fast quads, compares well for the number of runs and longest run.

#### **Strategy test results:**

- Closing 1 run doesn't make difference; Closing 2 or 3 reduces its support for ticket price; Closing 4 or 5 does not make difference from closing 3; closing 6 cause large drop on price.
- Adding a run, increasing vertical drop by 150 feet, and installing an additional chair lift increase support for ticket price by \$1.99.

Note: The model is also prepared to test other facility using strategies as suggested. Thank you!