Big Mountain Resort

Ticket Price Predictions and Findings

Problem Identification

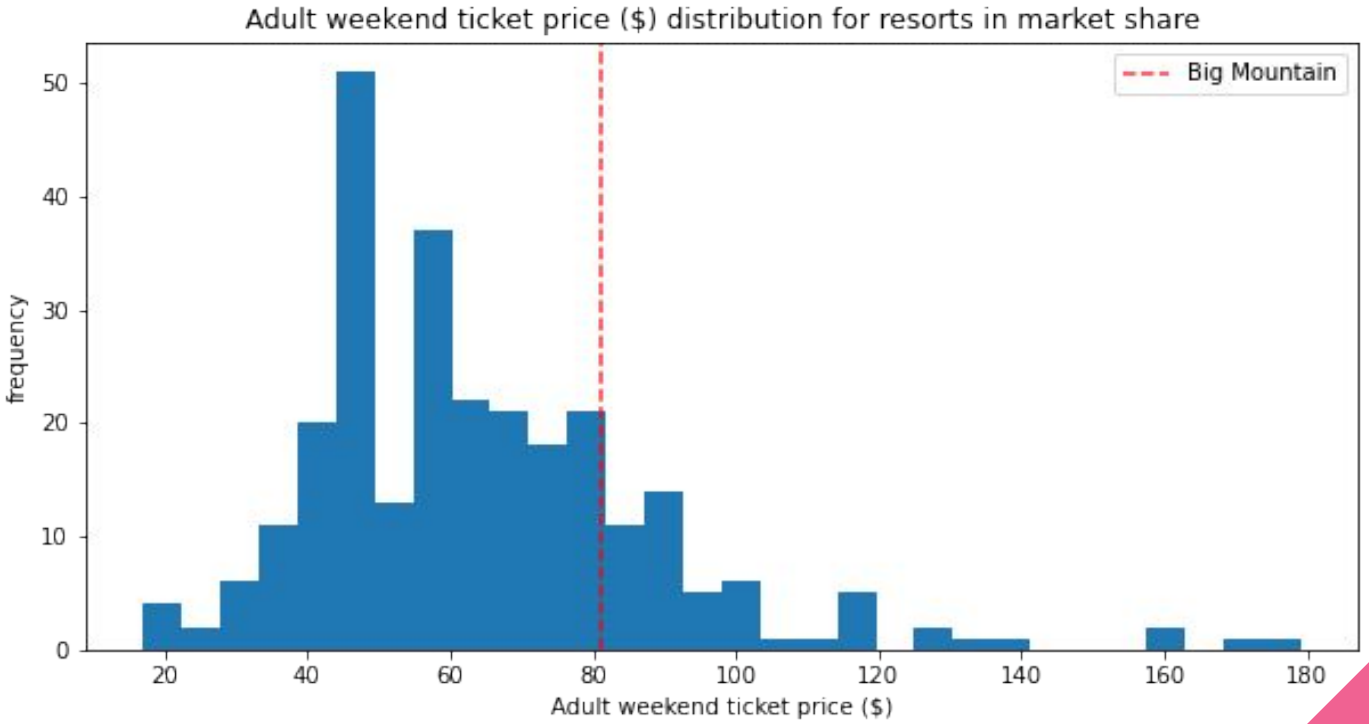
- Predicting adult weekend ticket price for ski resorts
  - Can we support higher ticket prices?
  - Current pricing strategy is based on the average.
  - Seeking new and better pricing strategy.
- Finding facilities or features that matter most to visitors
  - Which facilities can have higher ticket prices?
- Need guidance with future facility investment plans
  - What can be done to either cut costs or increase revenue?

Price Comparison

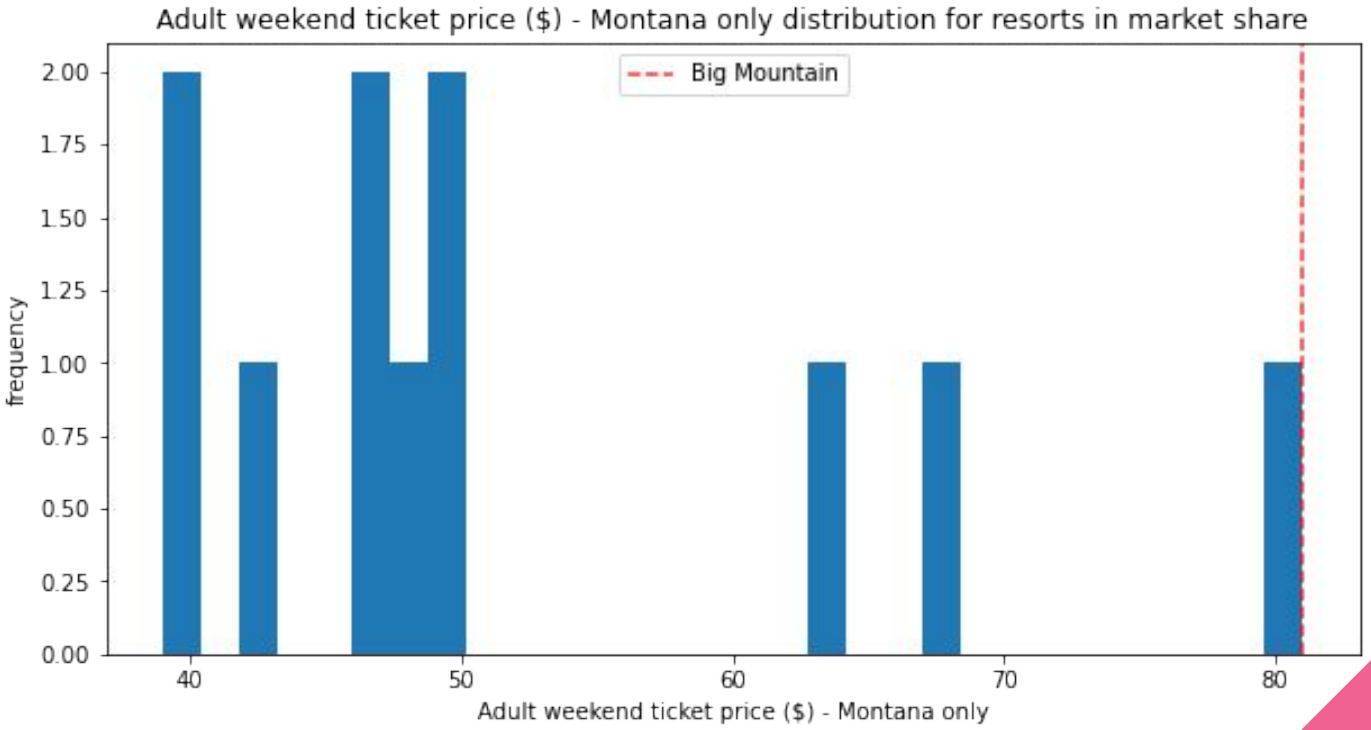
- Big Mountain resort weekend ticket price is in the middle of the price distribution graph compared to all the other resorts in the market share.

- Comparing to ticket prices in Montana alone shows that Big Mountain resort has highest price in the state.

Big Mountain vs All Other Resorts



Big Mountain vs Resorts in Montana



Most Useful Features

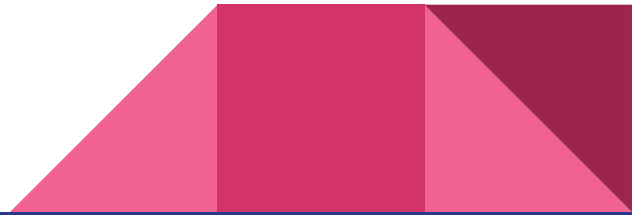
- Top four positive features:
  - Vertical_drop
  - Snow Making_ac
  - fastQuads
  - Runs
- Other important features:
  - Total_chairs
  - Trams
  - SkiableTerrain_ac (negatively associated with ticket price)

Features Analysis

- Vertical drop: higher than majority, but there are a few others with a bigger drop.
- Snow making area: one of the highest.
- Total number of chairs: highest compared to most resorts.
- Fast quads: 3 (more than most others).
- Runs: also ranks high compared to others.
- Longest run: over 3 miles, which is higher than majority.
- Trams: none (same as most resorts).
- Skiable terrain area: higher than most.

Modeling Results and Analysis

- We are using data from all the other resorts (excluding Big Mountain) to predict the ticket price.
- Based on our model the ticket price should be $95.87.
- Actual price is $81.
- Even with the mean absolute error of $10.39, there is room for an increase.
- We will assume that other resorts accurately set their prices.



Key Findings

- Four options that will either cut costs or support higher ticket prices:
  - Closing up to 10 of the least used runs
    - Closing one run doesn't affect the revenue; 2-3 runs reduces support for ticket price, as much as closing 4 or 5; 6 or more runs will decrease the revenue even more.
  - Adding a run, increasing vertical drop by 150 feet, and installing additional chair lift
    - Supports an $8.61 price increase ($15,065,471 for the season)
  - Same as previous option plus adding 2 acres of snow making
    - Supports a $9.90 price increase ($17,322,717 for the season)
  - Increasing the longest run by .2 miles and adding 4 acres of snow making capability
    - Will not make any difference

Recommendations

- Closing down up to 5 runs will help cut down costs, without having a large negative effect on the ticket price.
- Adding a run, increasing the vertical drop by 150 feet, and installing a chair lift supports an $8.61 price increase, which adds $15,065,471 in revenue over the season.
- Adding 2 acres of snow making to the previous option doesn't have much effect and is therefore unnecessary.
- The 4th option suggested by the business, which would increase the longest run by .2 miles and adds 4 acres of snow has no effect on the price, therefore it's not recommended.

Summary

- Based on our analysis, we can support a higher ticket price
  - From the current price of $81 up to $95.87
- Most important features that affect the ticket price:
  - Vertical drop, snow making area, number of fast quads and runs.
- Recommended changes:
  - Closing down up to 5 runs if the focus is to cut costs.
  - Add a run, increase vertical drop by 150 feet and install a chair lift if the focus is to increase support for higher ticket price.