Big Mountain Resort Report

How can Big Mountain Resort increase revenue over 10% next season via decreased operating costs and/or increased ticket prices supported by its premium facilities?

Recommendation and Key Findings

- If Big Mountain Resort maintains current facilities:

  recommend increasing ticket prices to $95

- Including 10 runs closed:

  ticket price of $94 supported by data

- Adding 1 run, 1 chair lift, increasing vertical drop 150 feet:

  ticket price of $104 supported by data

Modeling results and analysis

- Features with highest initial correlation to ticket price:
  - Runs
  - Snow making acres
  - Total chair lifts
  - Vertical drop

- Further analysis to follow for individual chair lifts and other unknown correlations with linear and random forest modeling
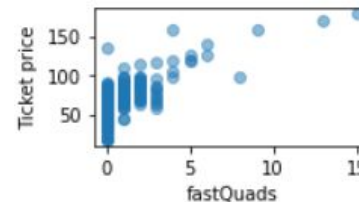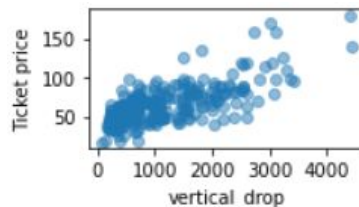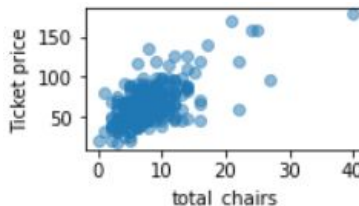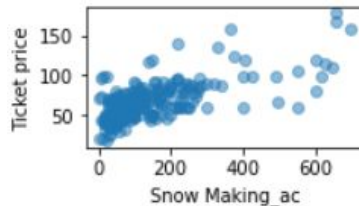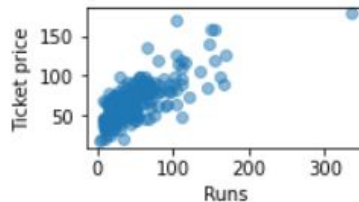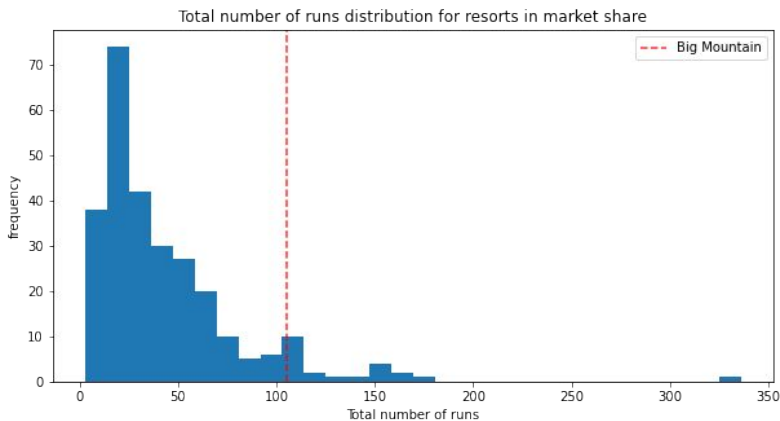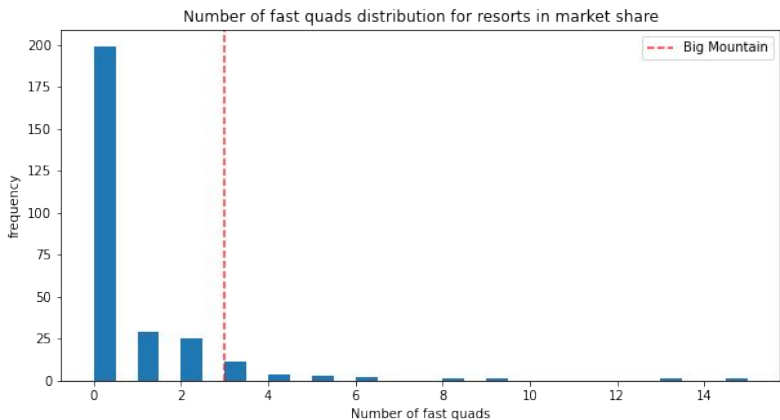
Modeling results and analysis

- Random forest regression model showed best performance of predicting optimal prices over the linear regression model
- *Fast quads, runs, snow making acres,* and *vertical drop* account for over 70% of all features' importance in predicted ticket price

Best random forest regressor feature importances
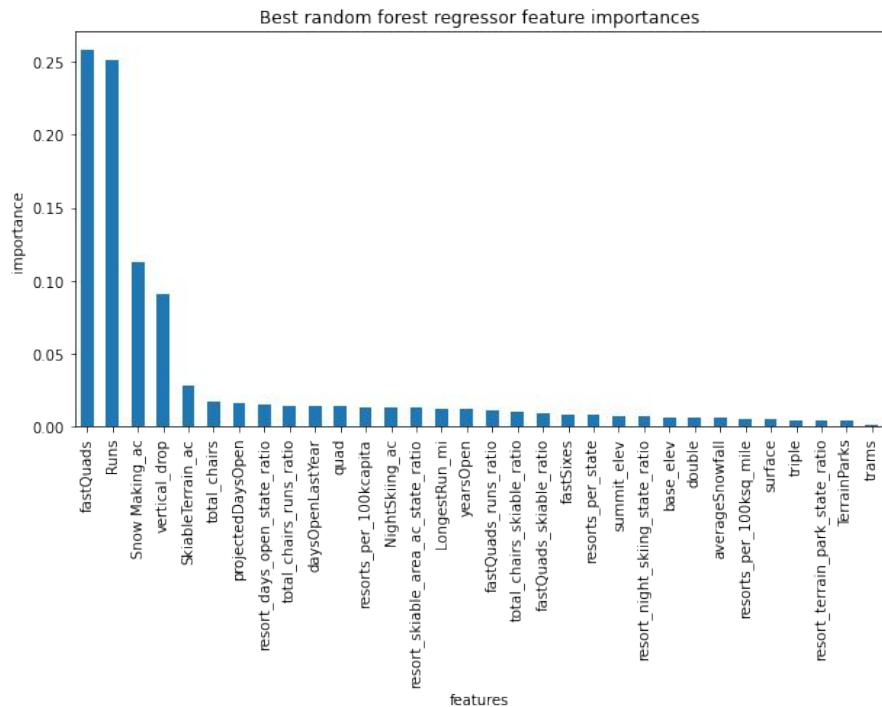
Modeling results and analysis

- Big Mountain Resort is in the top tier of resort facilities compared to 276 other resorts, specifically in the most important features
    - Fast quads: 94th percentile
    - Runs: 92nd percentile
    - Snow making acres: 84th percentile
    - Vertical drop: 89th percentile

Number of fast quads distribution for resorts in market share

Total number of runs distribution for resorts in market share

Conclusion

- The data shows Big Mountain Resort is able to support increasing ticket prices to match its premium facilities compared to the market competitors
  - $94 ticket price increases revenue $24,500,000 over a season
- Reducing operating costs by closing up to 10 runs:
  - Increasing revenue $22.7M (excluding reduced operating costs of closed runs) compared to current price
- Expanding facilities and increasing prices to $104 to match:
  - Increase of $40.25M in revenue (excluding increased operating costs of additions) compared to current price