Big Mountain Pricing

Market Pricing Model

New Pricing Needed

- New chair lift has increased operating costs by $1.54M.
- Need to increase profit by at least that much
- Gains from Price Increases or Cost Reductions

Goal:

Develop pricing model that will increase profit by $1.54M this year to cover operating costs of new chair lift and provide direction for possible cost reductions.

Recommendations

- Modeling indicates that Ticket Price could be set to (to $95.87 - an increase of $10.39/Ticket
- Closing 1 - 5 runs would depress the price per ticket
  - Would be worth it if cost savings is greater than $1.25M
- Adding one very long run could support a ticket price increase of $1.99/ticket ($3,474,638 annual)
- The number of fast quad lifts, number of runs, snow making ability, and vertical drop had the biggest effect on pricing

Results

- Random Forest Regression was best model
  - R-squared = 0.71
  - Mean Absolute Error = 11.8

Important features
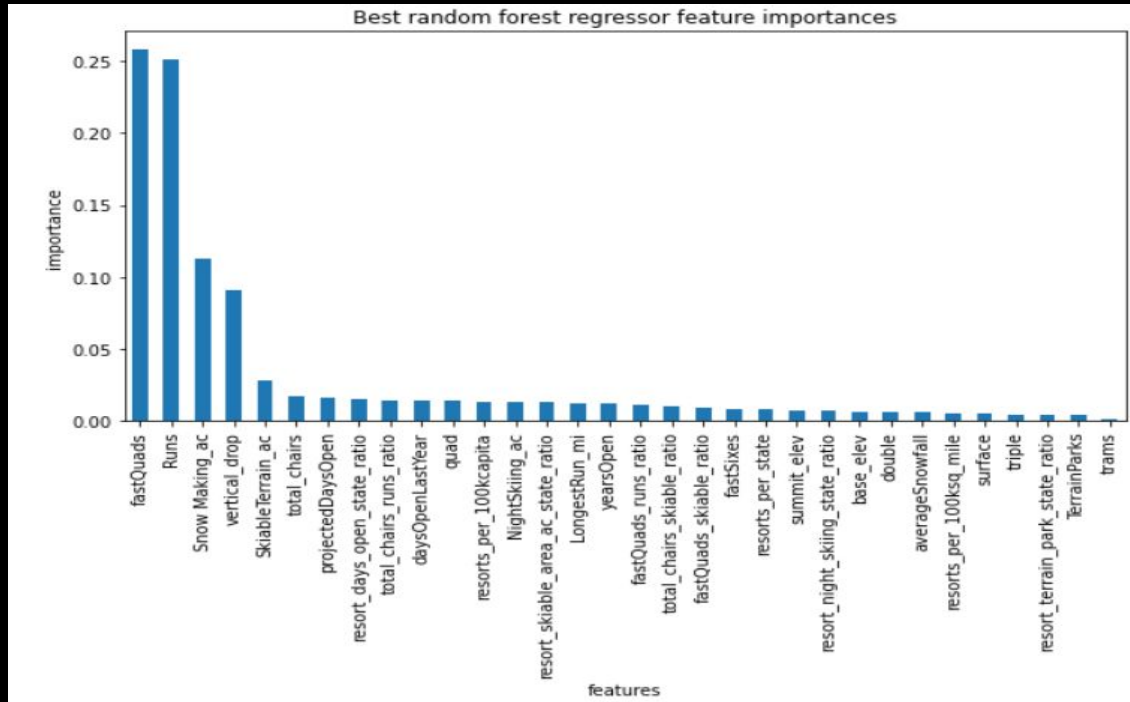
Best random forest regressor feature importances

- Number of fast quad lifts, number of runs, snow making ability, and vertical drop had the biggest effect on pricing

Assumptions

- Big Mountain has 350,000 visitors a year
- Each visitor stays 5 days (buys 5 lift tickets)
- Operating cost of the new chair lift is $1.54M

Further study

- Cost of each feature is unknown
  - Cost of feature could play a role in reduction plan
- Number of visitors per year for other resorts is unknown
  - Volume could play a role in pricing that is unaccounted for in this model

Conclusion

- Current price is $81/ticket
- Big Mountain needs to raise the ticket price by at least $0.88/ticket to cover costs of new lift
- Analysis shows that the cost could be raised by $10.39/Ticket (to $95.87) and be in line with other resorts in the market
- Removing unpopular runs and adding one long run could support further cost reductions and price changes