Big Mountain Resort
Pricing Strategy
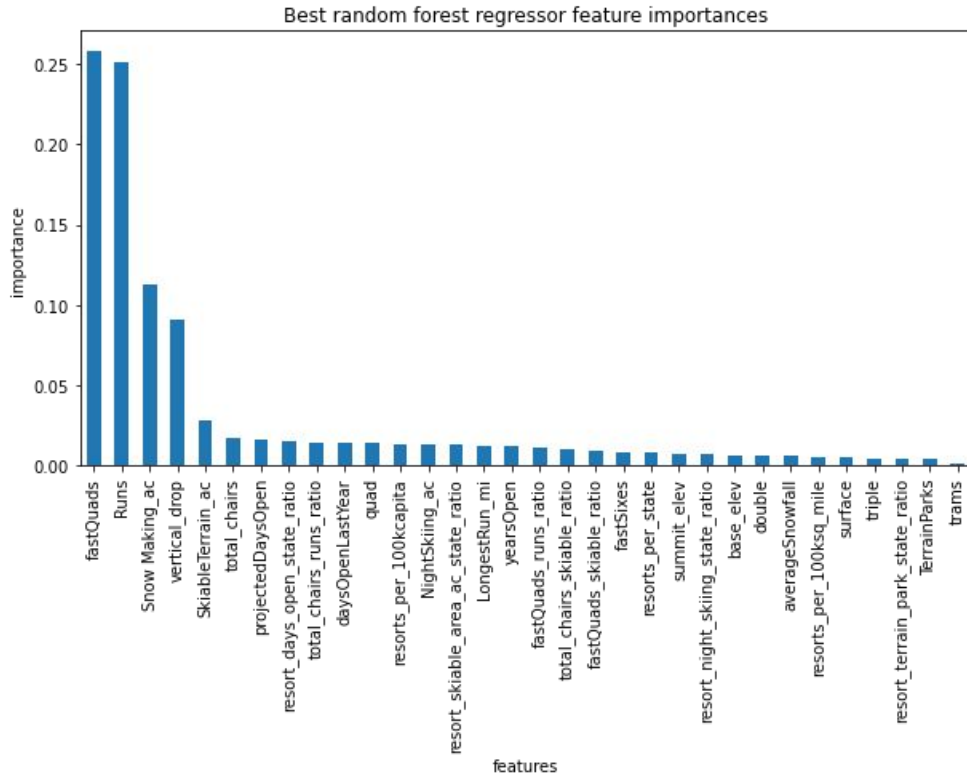
Problem Identification

New lifting chair installed: $1,540,000 operating cost

To increase profitability:

- Select better value for ticket price
- Cutting business costs
- Making additional investments

Useful Features Influencing Ticket Price

Best random forest regressor feature importances

Random forest model shows the most useful features to predict ticket price:

- fastQuads
- Runs
- Snow Making_ac
- vertical_drop

Business Strategies

Modeling Scenarios

1) Permanently closing down up to 10 of the least used runs. This doesn't impact any other resort statistics

2) Increase the vertical drop by adding a run to a point 150 feet lower down but requiring the installation of an additional chair lift to bring skiers back up, without additional snow making coverage

3) Same as number 2, but adding 2 acres of snow making cover

4) Increase the longest run by 0.2 mile to boast 3.5 miles length, requiring an additional snow making coverage of 4 acres

Recommendation and Key Findings

- Big Mountain's current ticket price **$81** can be increased to the model suggested price **$95.87**
  - Mean absolute error of **$10.39** should be considered to not implement aggressive pricing strategies

- The least used runs can be closed to **cut facility costs** without undermining ticket prices (Scenario 1)

- Increasing vertical drop is an effective investment to **increase ticket value**(Scenario 2)

- Scenario 3 and 4 makes no difference in ticket price

Scenario 1 : Closing Runs
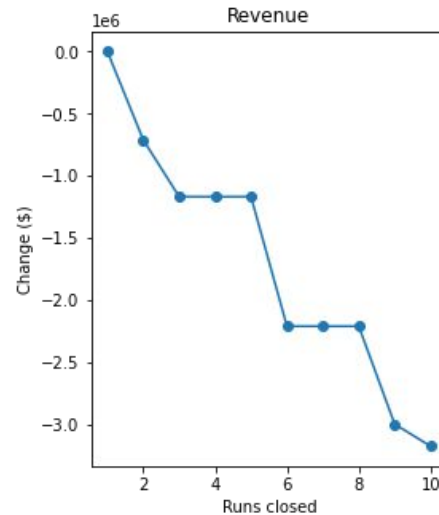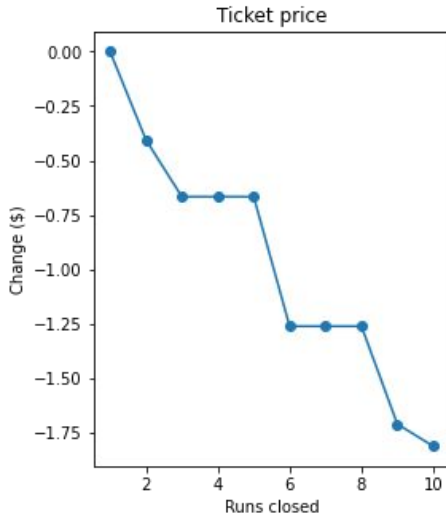
- Our analysis show that closing some of the least used runs help the resort to drop some facility costs

- Number of runs projected to be closed should be identified by understanding the pattern of the graphs

- Run closure and ticket price increase can be applied simultaneously until reaching model predicted price: $95.87

Scenario 2: Increasing Vertical Drop

Vertical drop (feet) distribution for resorts in market share
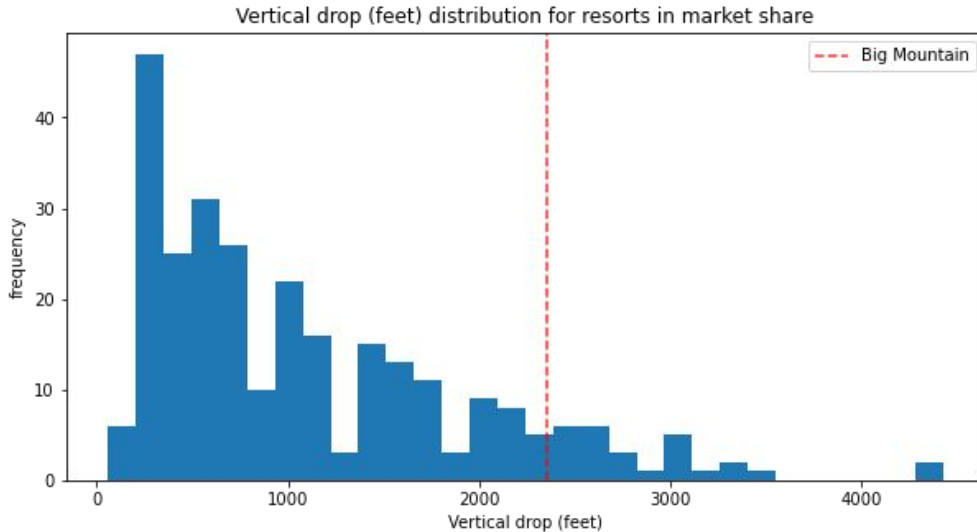
- In random forest model, it is estimated that vertical drop is one of the most important factors to explain the increase in ticket price

- Increasing vertical drop, which also requires adding a run and chair lift to make the area accessible, would be a good investment to increase profits

- in the model it is predicted that these investments would lead to **$1.99** increase in ticket price and **$3,474,638** increase in revenue

Summary and Conclusion

- Scenario 1 is a good option of the executives wants to increase profits without undermining ticket price

- Scenario 2 can be a good option if the executives are unsure about how to make additional investment, in addition to lifting chair, to be more confident about increasing ticket price

- Also, the most basic approach would be increasing the ticket price without making any changes in resort features. We should analyze how this price adjustment would affect number of visitors to receive the expected profit increase

THANK YOU!

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