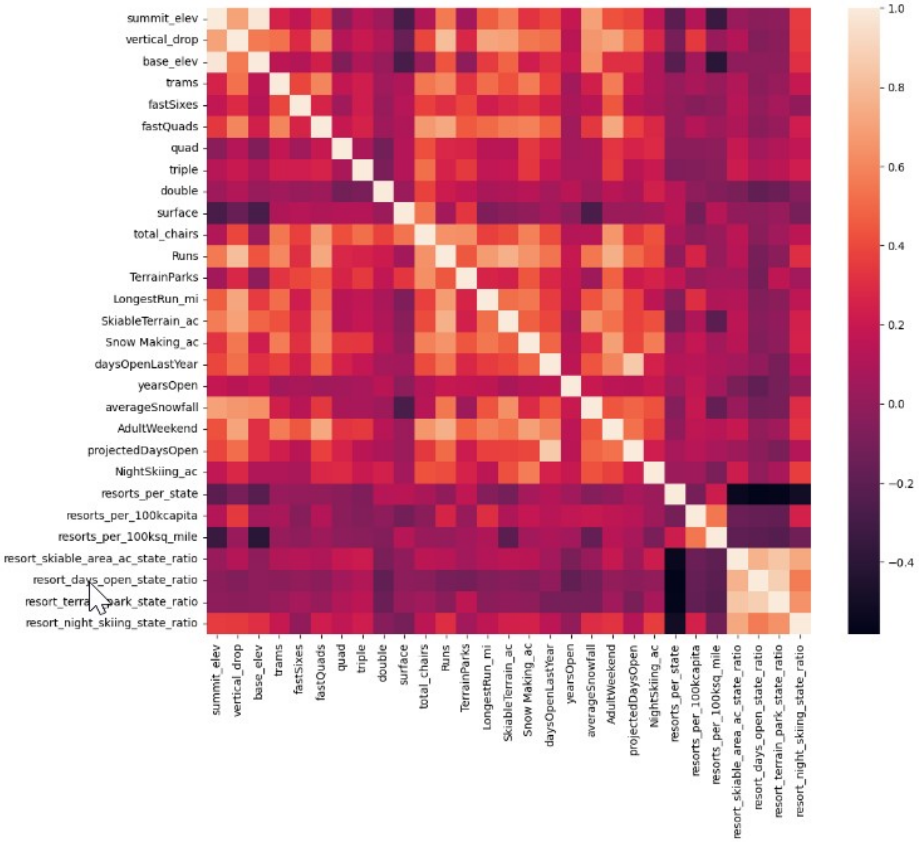
Big Mountain Report

Problem Statement: How can Big Mountain enhance its investment strategy and maximize ticket value by 25% within 3 months through optimizing facility use, analyzing amenity importance and/or adjusting ticket pricing?

Before: In the initial stages of our analysis, we delved into dataset manipulation, identifying and addressing issues like duplicate names. We then visualized data distribution across regions and states, refining the dataset to enhance clarity and usability. This cleaning process resulted in a 14% reduction in rows, streamlining the dataset from 330 to 277 rows.

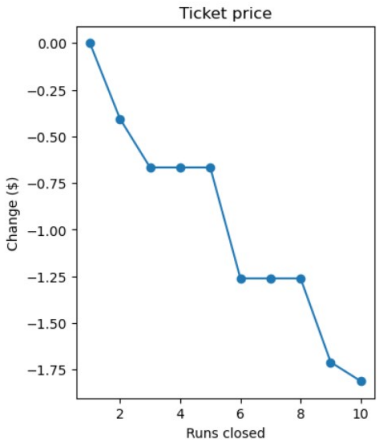
After: Moving forward, we scrutinized numerical and categorical features, revealing correlations within the dataset. Focusing on the target feature, AdultWeekend ticket prices, we identified key correlations with features like fastQuads, runs, snow making, and night skiing. Transitioning to model development, we established a baseline, employed a linear model, and eventually settled on a Random Forest model for improved performance.

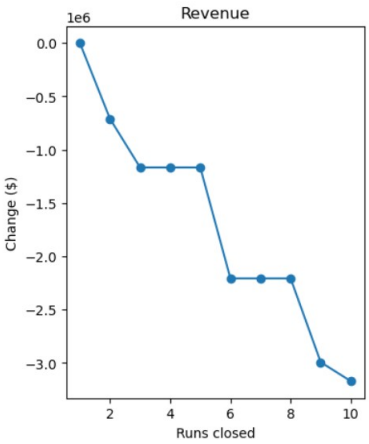


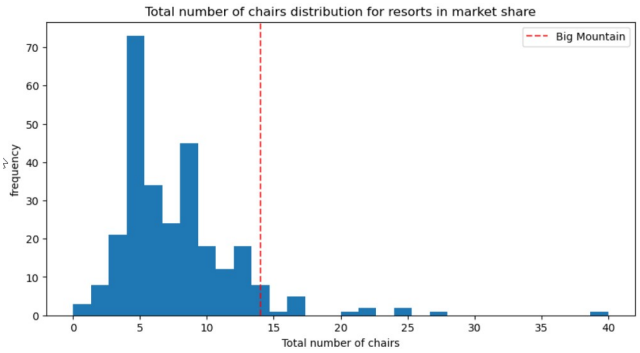
Recommendations:

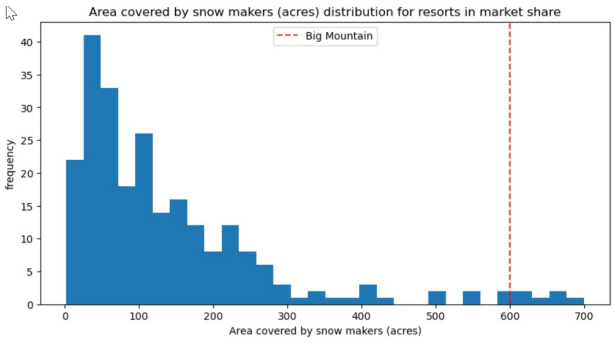
- With the Big Mountain Resort pricing its Adult Weekend tickets at $81.00, our model suggests a potential increase to $95.87. However, engaging with management and presenting forecasted prices and potential revenue before proposing a hike is crucial. Adding a new chair lift, with an operating cost of $1,540,000, could be offset by a $14.87 ticket price hike, projecting a revenue increase of $26,022,500.

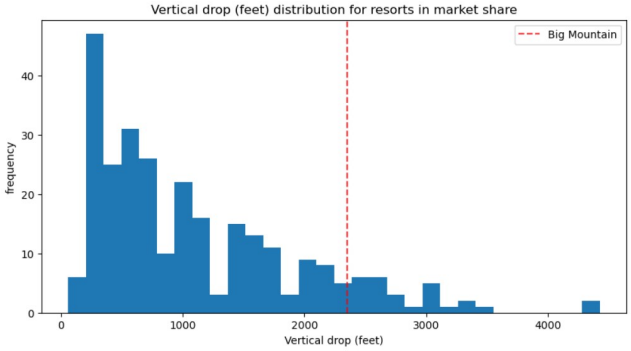
- After going through different scenarios we found that closing 5 runs, as per the model's suggestion, could lower the ticket price by approximately $0.67, resulting in an estimated revenue loss of about $1,170,000.











- We found that for further enhancements, Scenarios 2 and 3 are our best bet. Scenario 2 proposes adding a new run, increasing the vertical drop, and installing an additional chair lift, while Scenario 3 proposes the same with 2 acres of snow making. Both of these support a $1.99 ticket price increase and a revenue boost of $3,474,638.

The three graphs showcase the resort compared to others and show that there is still room to grow in all three departments.

Conclusion: With the data and resources given we see that Scenarios 2 and 3 are the most beneficial to enhance the revenue. However, with more information on different details of the resort, it would be possible to find more ways to raise ticket prices while saving money on other operations.