

Data Driven Pricing Strategy

Big Mountain Resort





Problem Identification

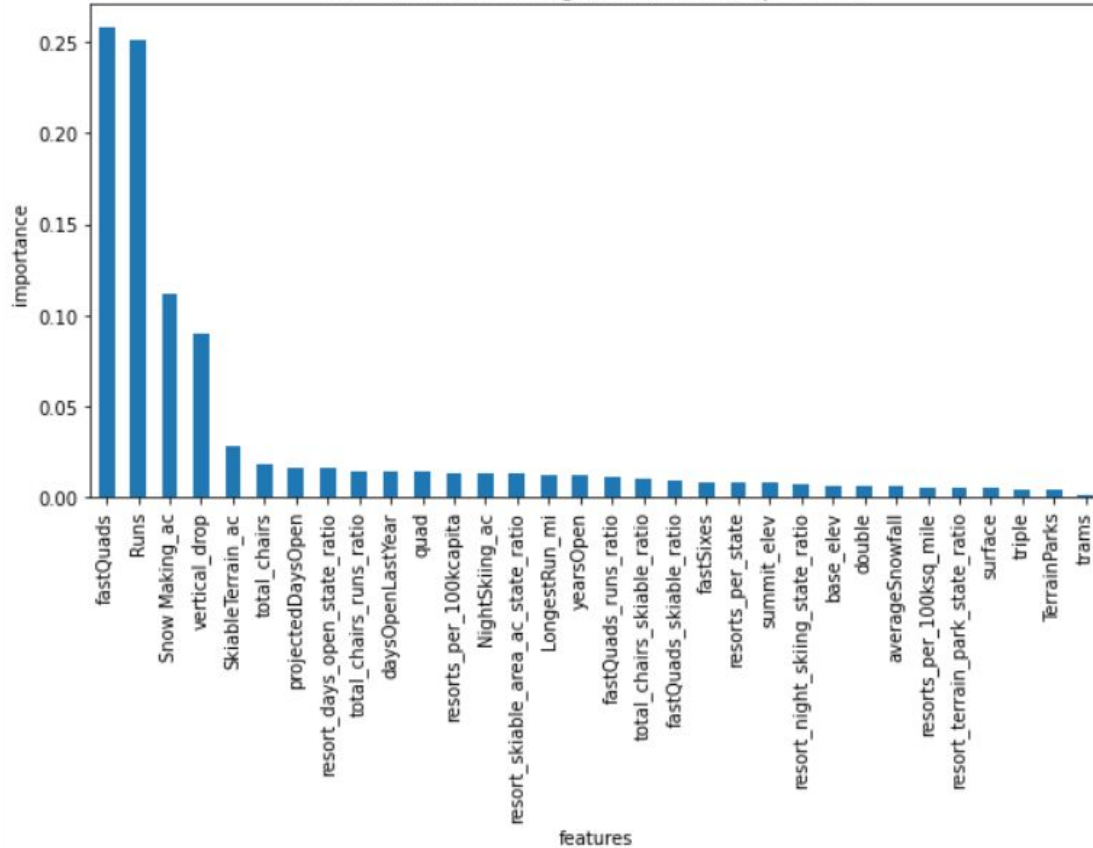
- What is the current value of a Big Mountain Resort ticket?
- Which facilities have the most impact on ticket price?
- Where can we cut costs without undermining ticket price?



Recommendations

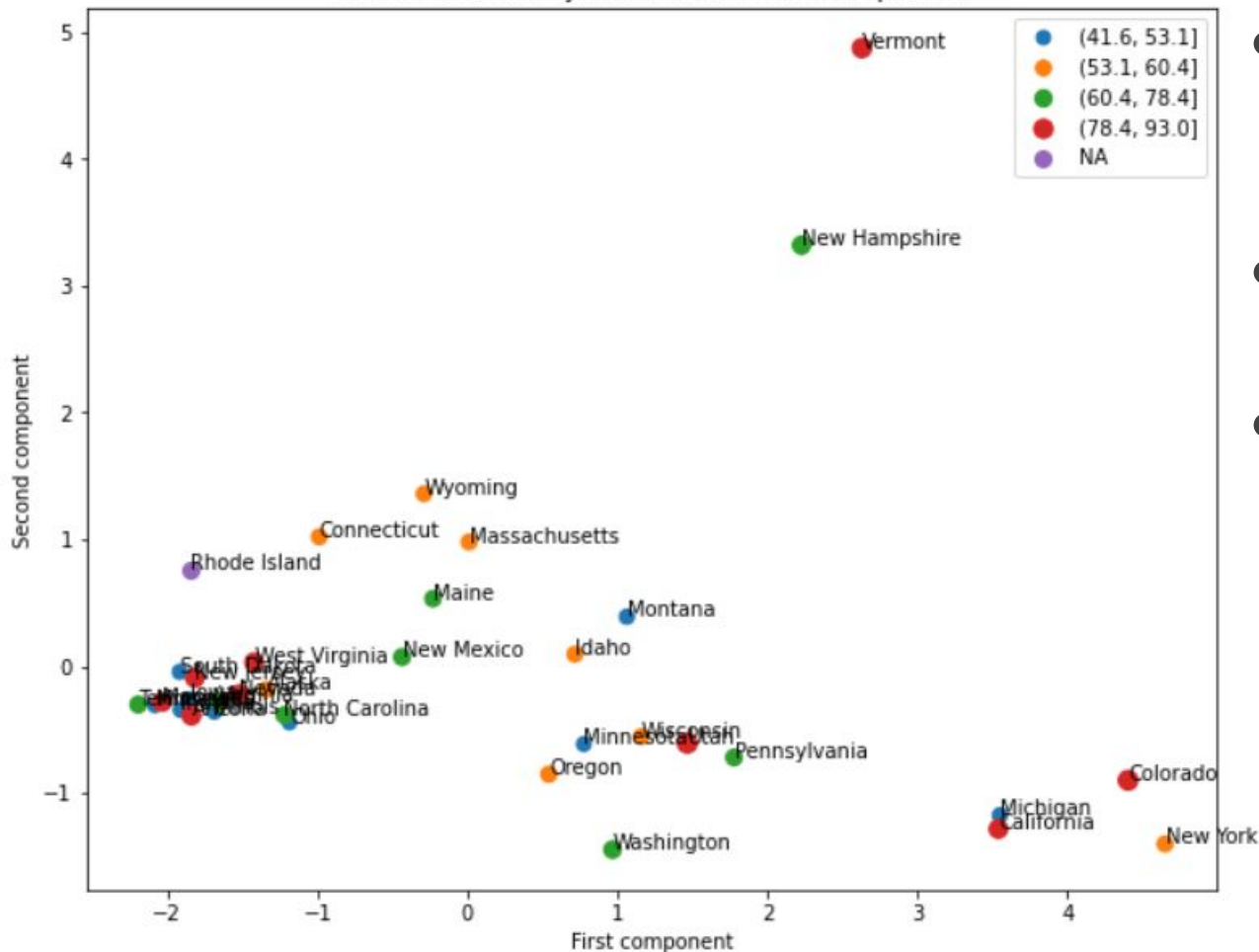
- Increase the ticket price to \$94.22
- Close the 5 least used runs
- Proceed with Scenario 2
 - Allows for an ticket price increase of \$1.99
- Don't increase snow making capacity

Best random forest regressor feature importances



- Most Important Features
 - Fast Quads
 - Total Runs
 - Snow Making Acres
 - Vertical Drop
- These 4 features have a positive relationship with ticket price.

Ski states summary PCA, 77.2% variance explained



- Similar States appear close to each other
- Montana is not in any cluster
- Resorts from each state weighted equally



Final Model

- Random Forest Regressor
- Target Feature: Adult Weekend Ticket Price
- 69 Trees Created
- No Feature Scaling
- Missing values replaced with median
- Mean Average Error: \$10.39
 - 5-fold cross validation



Conclusion

- Tickets are currently under priced and can be safely raised too between \$83.83 and \$104.60.
- Consider moving forward with Scenario 2 if it would cost less than 3.5M per season.
- Big Mountain Resort is already a premium resort.