

Big Mountain Resort

How do valuable resort features tie into a model of resort revenue?

Can these features be used to justify an increase in adult weekend ticket price?

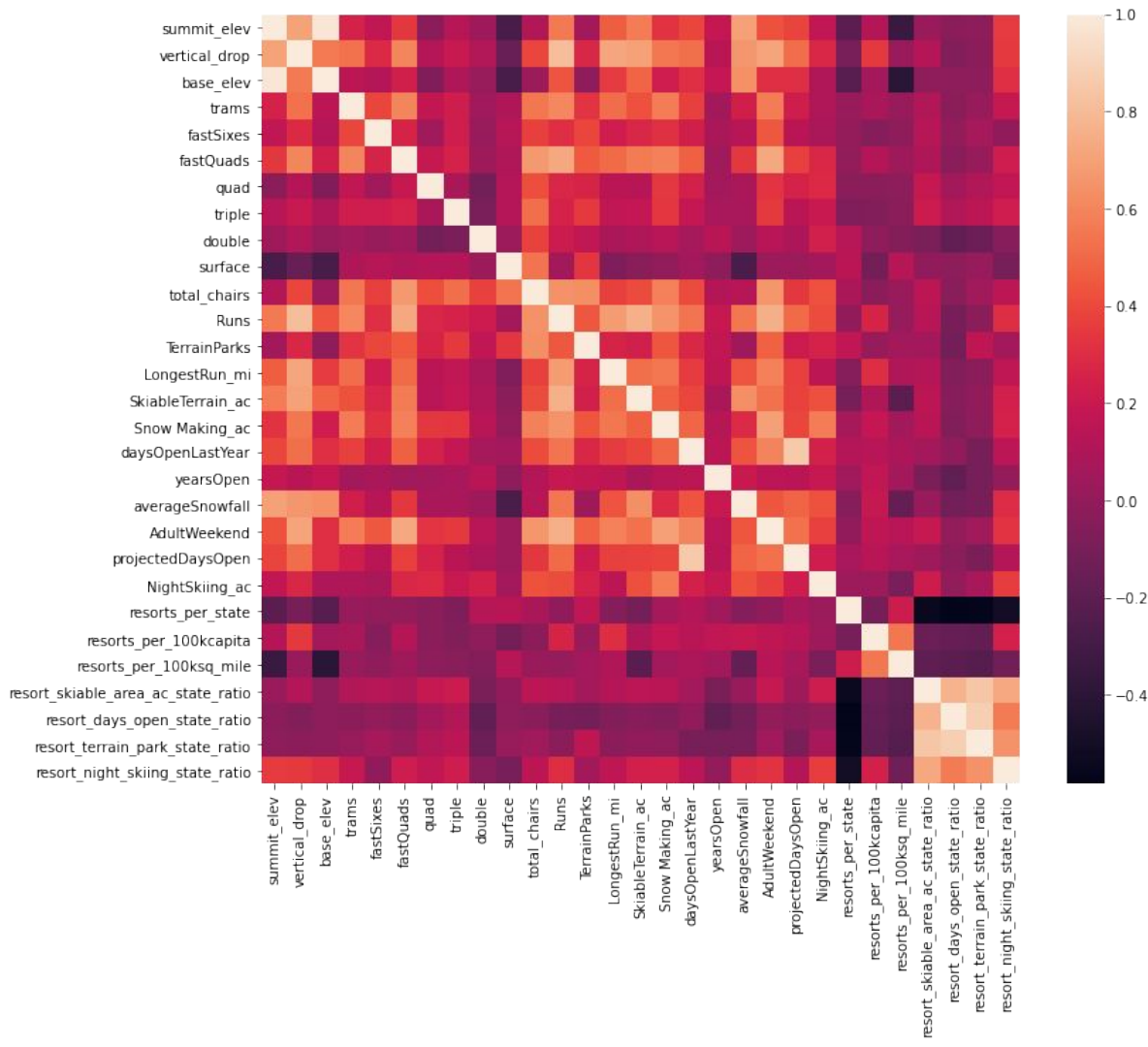
Features

-Heatmap of features and ticket price correlation

-Some features adult weekend ticket price is positively correlated with are...

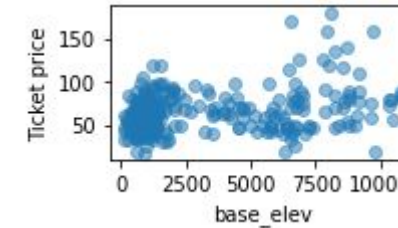
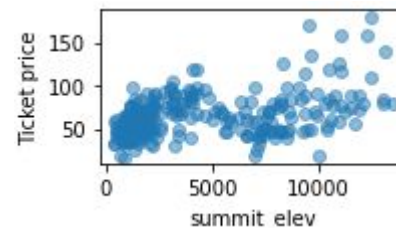
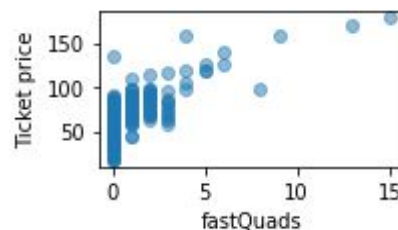
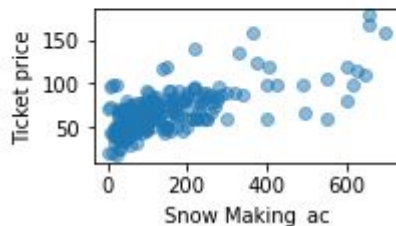
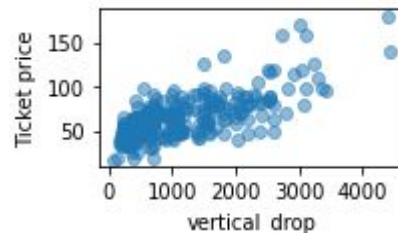
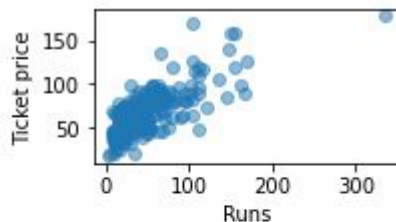
-fastQuads, runs, and snow making acres

-These features are selling points that raise ticket prices



Correlation of features with ticket price

- A few valuable features that warrant higher ticket prices
- Obvious selling points are base and summit elevation as well as vertical drop
- The 'hidden' valuable features include runs, snow making acres, and fast Quads
- These features (minus base and summit elevation) can all be increased or reduced, resulting in revenue change
- This feature variability is how higher ticket prices can be justified

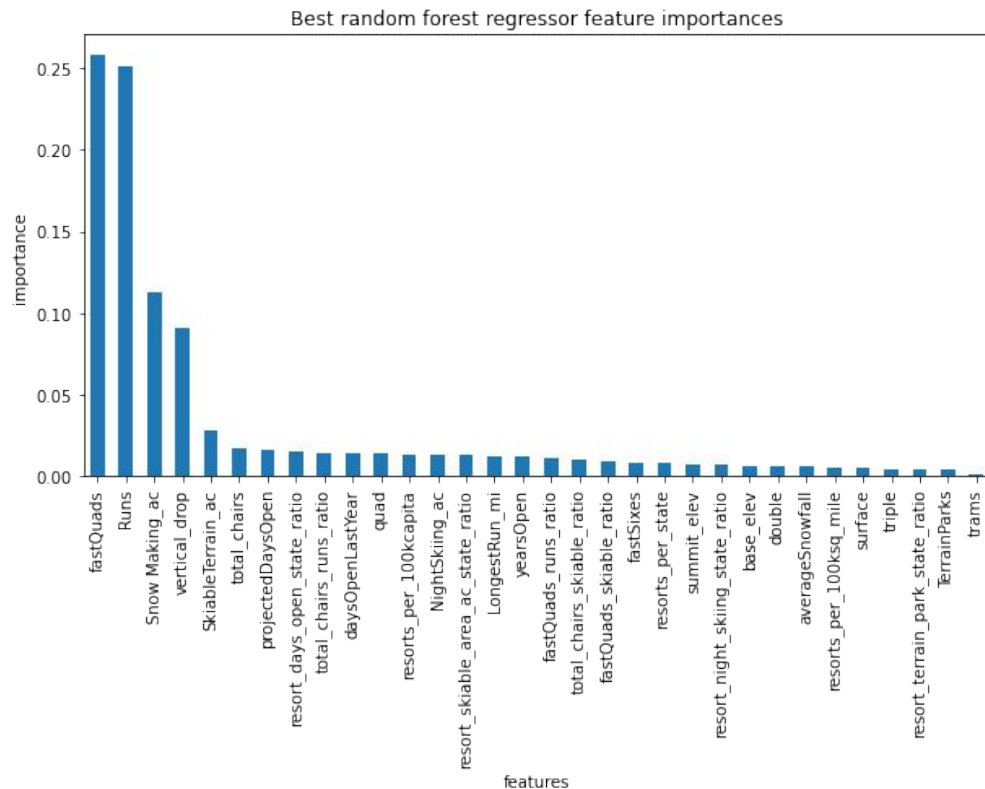


Most important features

-The random forest regressor provides a clear hierarchy of important features

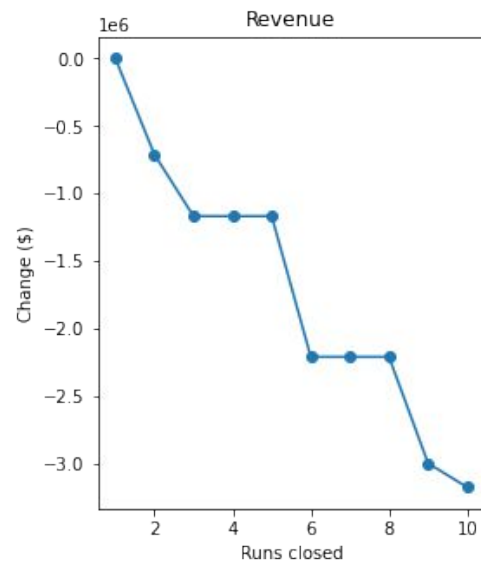
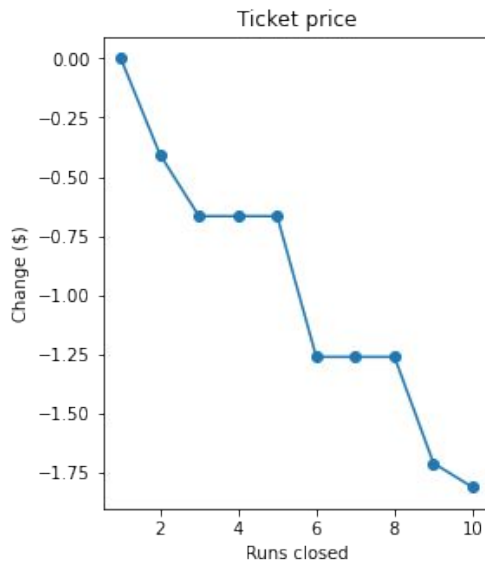
-The top four are the ones most positively correlated with adult weekend ticket price!

-A recommendation can now be made with this feature information



Recommendation

- Scenario 3 adds a run, increases the vertical drop by 150 feet, adds another chair lift, and adds 2 acres of snow making
- This scenario increases support for ticket price by \$9.90, and can be expected to amount to \$17,322,717 over the course of the season
- Scenario 1 is also recommended, as it reduces operating costs for underutilized runs
- Closing 5 runs reduces ticket price by about \$0.75

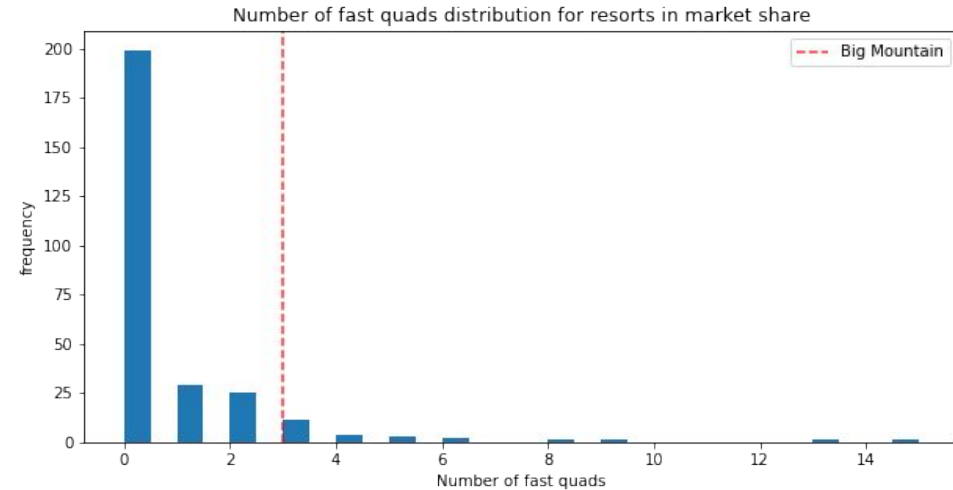
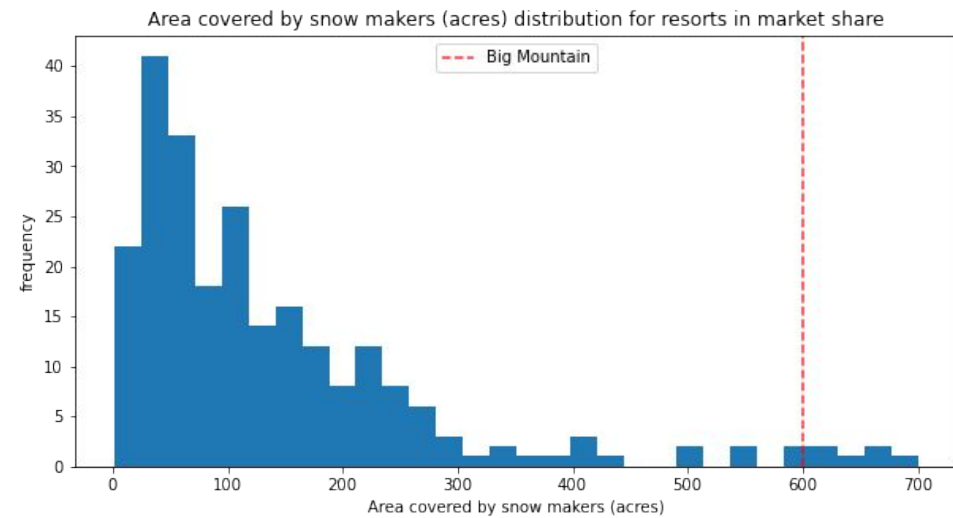


Modeling Results and Analysis

- The modeled resort ticket price is \$95.87
- The mean absolute error is \$10.39, this leaves room for an increase
- The \$0.75 drop in ticket price due to trail closures is negligible with this modeled price
- Big Mountain Resort sits comfortably among the other resorts in regards to important features provided to skiers

Analysis

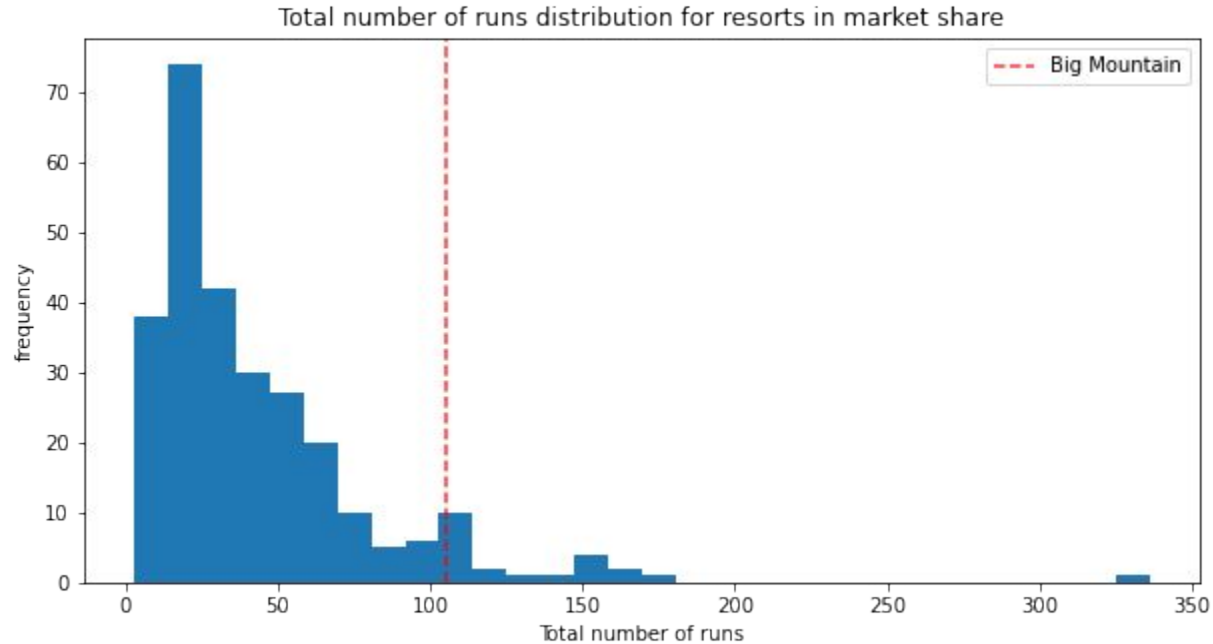
- BMR boasts one of the highest areas of snow coverage in the ski resort market
- Guaranteed snow is the third most important feature
- BMR's snow making capabilities alone warrant an increase in ticket price!
- Fast quads are an important feature that Big Mountain has
- The rarity of fast quads increases it's selling point with customers



Analysis

-Once again, BMR ranks high among its competitors with the number of runs available

-Closing down the 5 least used runs will still keep BMR near the top in terms of runs available to skiers



Conclusion

- BMR boasts a lot of the important features that customers are willing to pay more for
- Adding a new run by increasing the vertical drop by 150 feet, installing a new chair lift, and increasing snow making coverage by 2 acres justifies an increase in adult weekend ticket price