

## Executive Summary

Big Mountain Resort may be undercharging for its tickets relative to what visitors would be willing to pay, based on the above-average ski experience offered at the facility.

Executive leadership initially suspected that, despite historically charging what was considered to be a premium for tickets among ski resorts in its market segment, BMR was still failing to charge the maximum amount that the market would tolerate and thus leaving profits on the table.

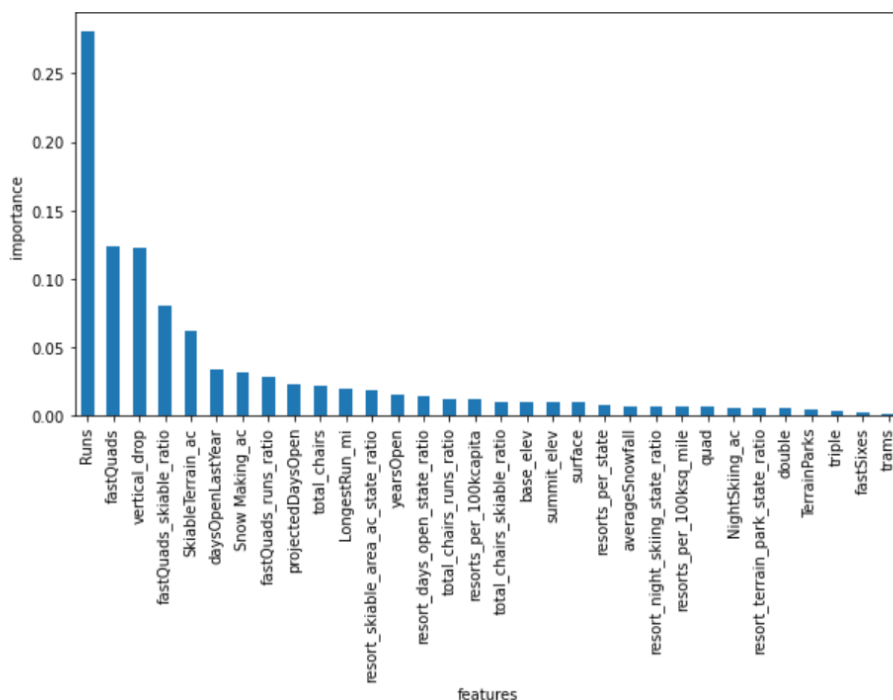
A deep analysis of the features and facilities, both natural and installed, of other ski resorts throughout the country – with special attention paid to regional aspects that may make Montana a more or less competitive ski market – reveals that executive leadership's hypothesis is supported by the data. There is a strong case to be made for raising weekend adult ticket prices by as much as \$13.

## Analysis and Methodology

We began with a dataset that included information on over 300 ski resorts from all over the country. The data ranged from natural features like summit elevation and vertical drop, to facilities like number of runs and quantity and type of lifts, to business aspects like number of days open annually.

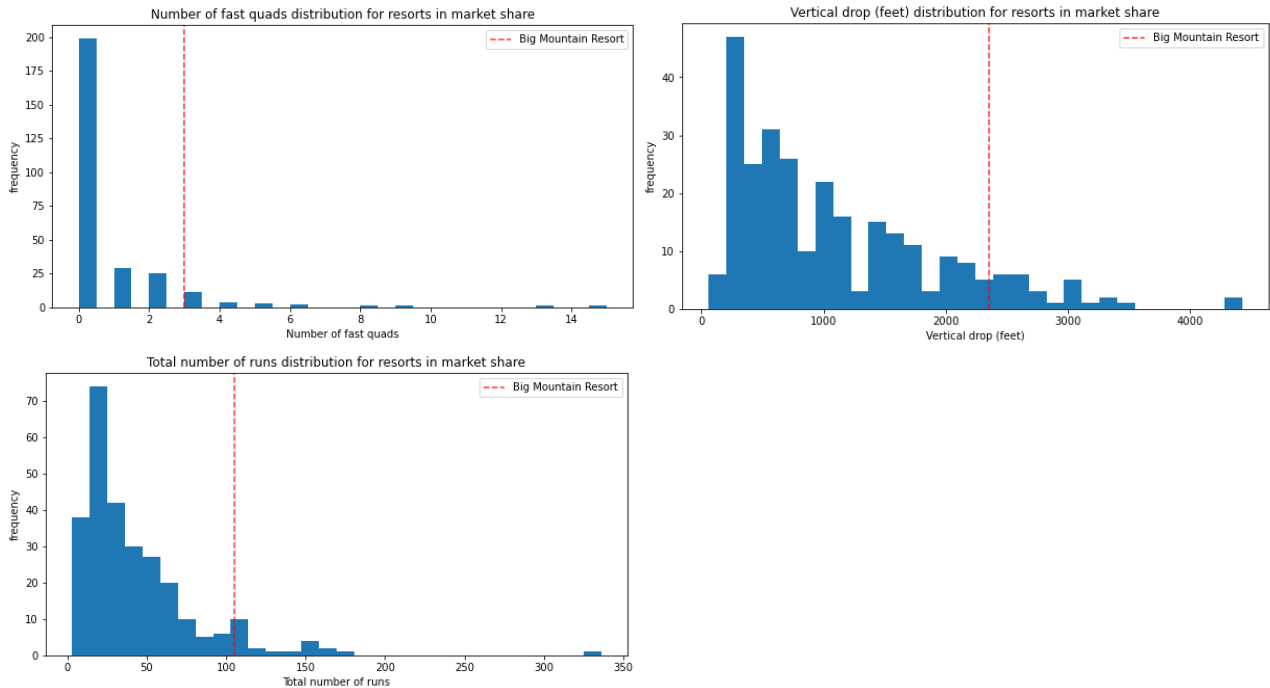
After cleaning the data and removing several categories of data that lacked enough information to serve as a good basis for analysis, we augmented the set with additional data on state population and geographic area to make sure that aspects like population and resort density were factored in.

After testing several different approaches, we settled on a modeling technique called a random forest because it demonstrated the strongest ability to accurately predict the ticket prices of resorts in our data set, using their features and facilities as inputs. The random forest model also indicated that certain categories, such as number of available ski runs and total vertical drop, were more important than others in determining how much a resort could charge:



This fact backed up a first-glance analysis of the data, which also revealed a strong positive correlation between those categories and ticket price.

Tellingly, BMR ranks high among resorts in its market share for many of these factors like number of runs, number of “fast-quad” chair lifts, and vertical drop:



Thus, it's clear that leadership's original hypothesis was well-founded.

Crucially, our findings here lay the groundwork for further analysis into what cost-cutting BMR can undertake without sacrificing it's most appetizing features.

Finally, we applied the vetted model to Big Mountain Resort and found that, based on its values for the most important factors determining what other resorts are charging, there is support for raising its adult weekend ticket price by approximately \$13.

### Insights and Next Steps

Big Mountain resort currently charges \$81.00 for an adult weekend ticket. Our modeling suggests that the market would support an increase of approximately \$13, to a price of \$93.77 USD.

The data makes it clear BMR boasts significant advantages over the market average in facilities and features that our modeling determined were important for pricing, including total vertical drop, number of available runs, and total area covered by snow makers at the resort.