

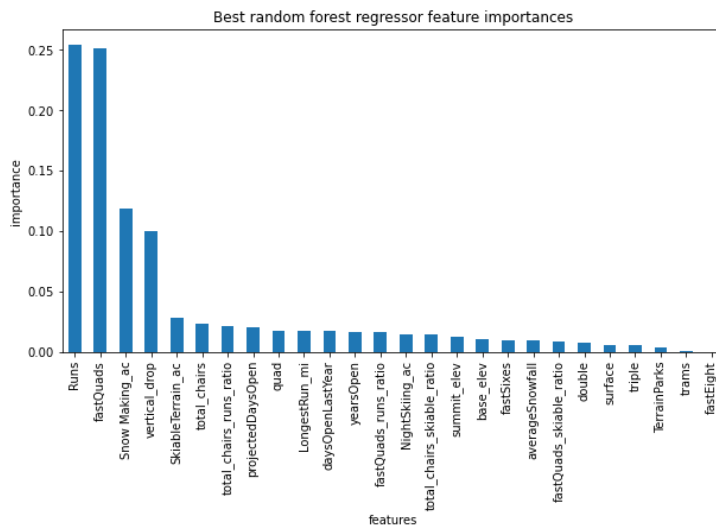
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## Big Mountain Ticket Price Analysis and Modeling

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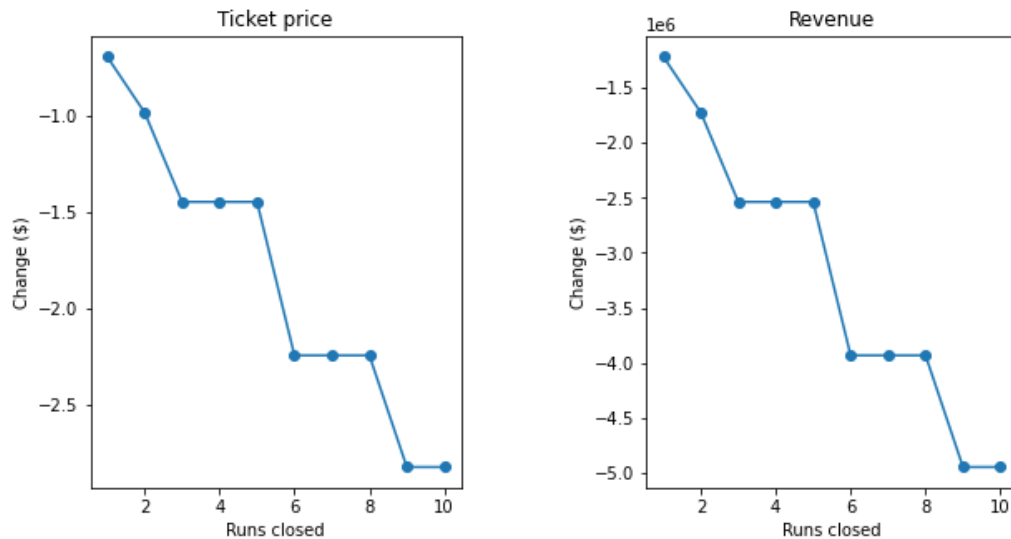
## Executive Summary

Using a data set of 330 ski areas with 27 attributes each, we used Linear Regression and Random Forest Regression models to identify the ski area attributes that are most impactful on ticket price. According to our research, the 4 most dominant features are fast Quads, Number of Runs, snow making coverage, and total vertical drop.



Big Mountain resort currently has a ticket price of \$81.00. Our modeling suggests that a ticket price of \$94.49 can be supported by current facilities.

According to our model, the resort can close up-to 5 runs without significant negative affect to ticket price support and revenue.



Adding one chair, one run and 150 vertical feet increases support for ticket price by \$2.19, which leads to increased revenue of \$3.83 million over the course of a season. (given the assumption of 350,000 customers buying 5 tickets). Operating cost for the new chairlift is given at \$1.43 million. Thus, the projected net profit is \$2.29 million

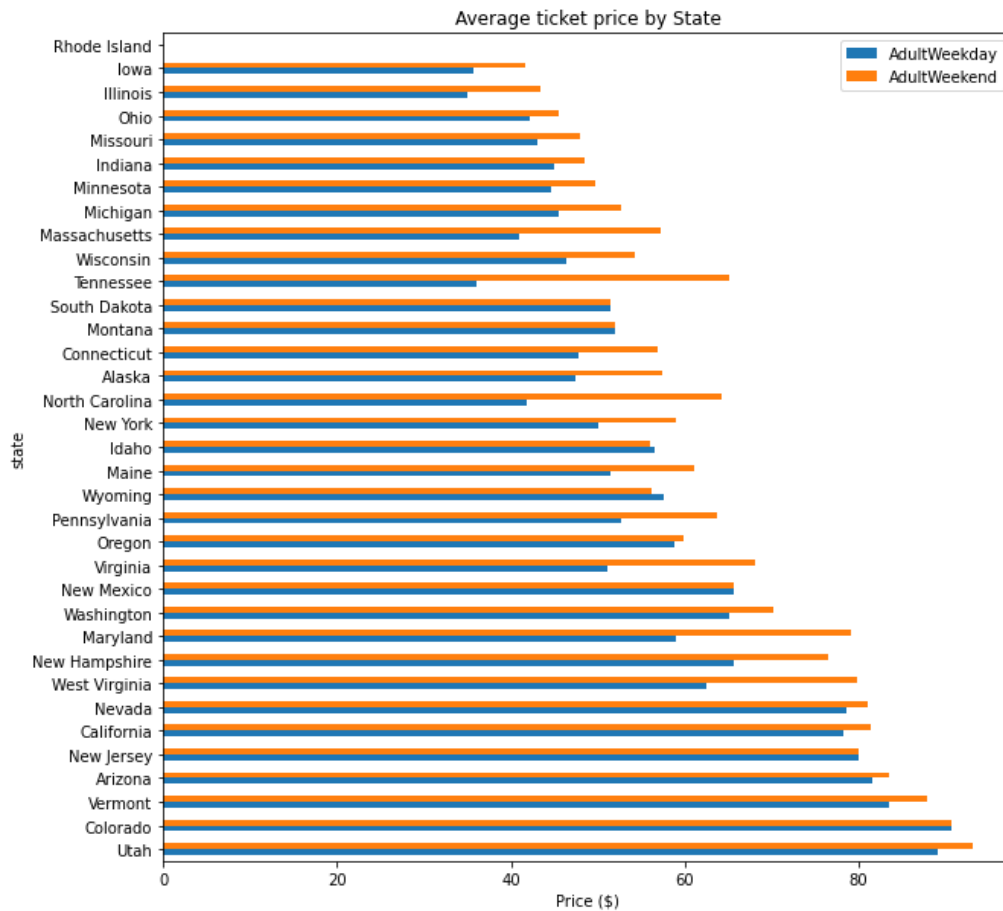
For future improvement, I recommend additional modeling on the value add of additional fastQuad chairlifts. Replacing an old double or triple chairlift with a highspeed quad would increase ticket price support, however the high maintenance and operating cost of these chairlifts raise concerns over sustained profitability.

I recommend that in the upcoming ski season, the company tracks number of tickets sold per day based on the number of open runs. If our thesis holds, (the resort can close up-to 5 runs without significant negative affect to ticket price support and revenue), proposals to permanently close 5 runs with low marginal utility should be presented.

The next step will be to add to our dataset with more quantitative data from the alpine resort industry like prices for hotels, equipment rentals, and ski or snowboard lesson. Operating cost information on highspeed quads, snowmaking will allow the data analyst to present the board with more recommendations on augmentations to the business model to increase profitability.

Additionally, variations in purchasing power between US regions needs to be considered. Our resort may be underpriced in comparisons to prestige resorts like Vail and Jackson Hole that serve ultra high net worth individuals. However Big Mountain is the most expensive resort in the

State of Montana. The Average ticket price in Montana is \$51.9 dollars. In fact, only two other mountains Red Lodge Mountain and Bridger Bowl have a ticket price over 60 dollars.



Please contact me directly with any questions or comments at  
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