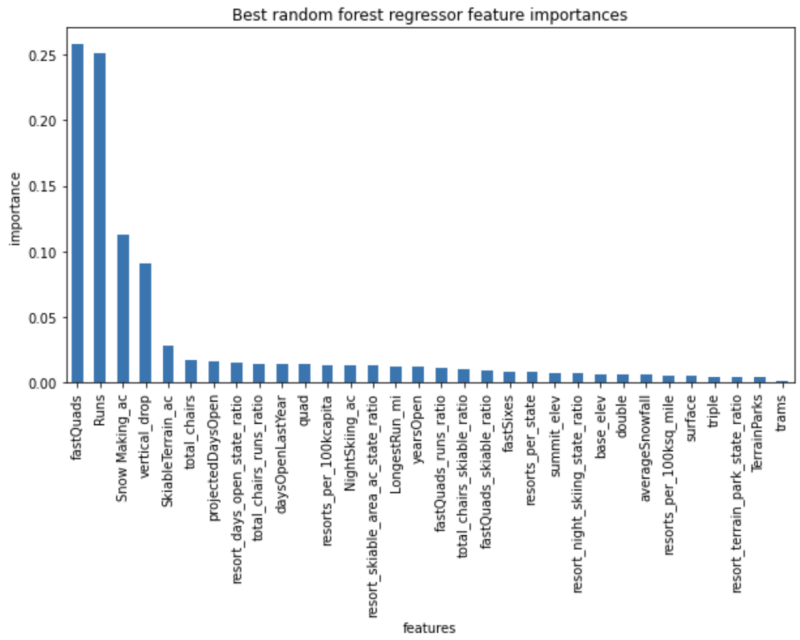
Big Mountain Resort Pricing Model Report

Results & Recommendations

Market data provided suggests that the current adult weekend ticket price (which is based on the average of ski resorts in the same market share) for the Big Mountain Resort (BMR) is underpriced. After building a pricing model using python packages, I received a modeled price of $95.87 compared to the actual price of $81.00. This model had a mean absolute error 10.39 indicating that the predicted price could be within the range of $95.87 (+/-) $10.39.

Big Mountain has one of the highest adult weekend price tickets in Montana and is on the higher end over all the resorts. The following histograms support that Big Mountain is the most competitive in the following key features based on the model used for pricing analysis- the Random Forest Model:

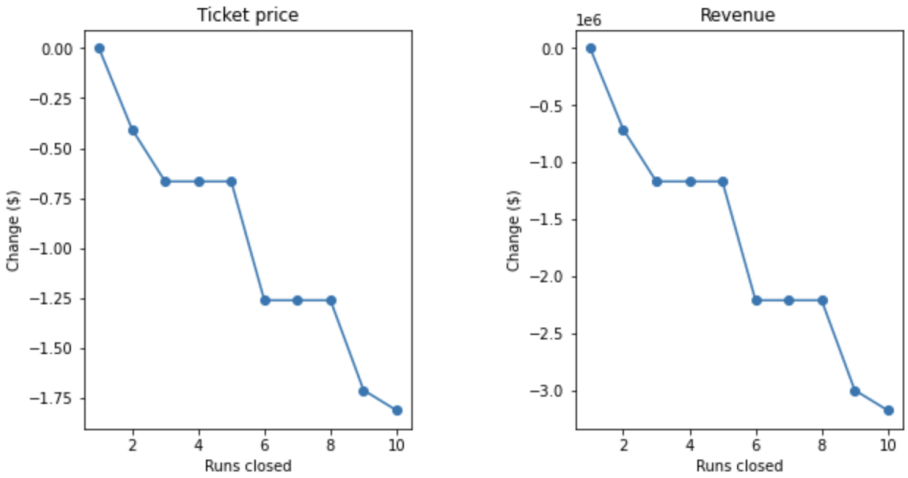
1. Fast Quads 2. Runs 3. Snow Making acres 4. Vertical Drop



My recommendations to Big Mountain executives are the following:

1. Based on the data given, Big Mountain can justify an adult weekend ticket price increase in the range of $4.48/ticket - $25.26/ticket. I suggest in the short-term increasing the price to $85.48 with an upper limit of $106.26 in the long-run.
2. Out of the options provided for justifying a price increase, my model supports concentrating resources on extending the vertical drop by 150 ft from 2353 ft to 2503ft in addition to the already added chair lift and without additional snow making acres. My model predicted that this scenario increases support for ticket price by at least $1.99/ticket with an additional expected revenue of $3,474,638. This option alone with a price increase lower than my recommendation of increasing price by at least $4.48/ticket will cover the $1.6M added operating cost.
3. I recommend closing down 1 run with a justification that there would be no change in ticket price/ revenue. If it closed down 2-3 runs there would be a drop in ticket price/revenue. If it closed down

3-5 runs the loss in revenue would be equal. If it closes down more runs than the loss of revenue would increase drastically. I would recommend exploring how much operating costs will be reduced if one of the least popular runs is closed down because my model shows that closing down one run does not impact price/revenue.



4. I recommend to avoid the option to increase the longest run by 0.2 mile to boast 3.5 miles length, requiring an additional snow making coverage of 4 acres as this option does not support any price increase The model used was the random forest model which did not retain the longest run as a top five key feature and therefore any minor adjustment to this feature will not justify a price increase.
5. I recommend avoiding any additional snow making acres as Big Mountain is already competitive across ski resorts and adding any coverage less than 25 acres does not affect the pricing model. Therefore, additional snow making acres will only add onto operating costs without much benefit.

Summary

To summarize, I have ascertained that the BMR adult weekend ticket prices are undervalued and there is a large range of adjusted ticket prices that can be considered in both the short term and long run. My analysis supports extending the vertical drop by 150 ft and eliminating one of the least used runs. I do not support the addition of snow making acres or extending the longest run. I believe that BMR has many avenues to reduce operating costs and increase revenue in order to mitigate the $1.6M of added operating costs within the next year if executives consider my recommendations. Thank you for your time. Please allow additional time in order for a cleaned up model to deploy for your team to investigate the case further.