

Conclusion of analysis

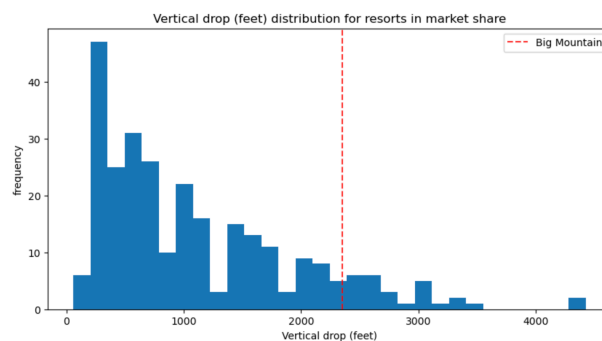
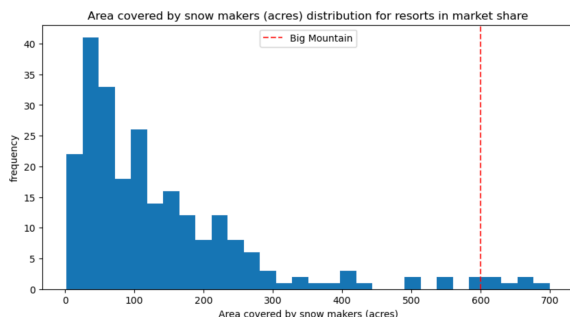
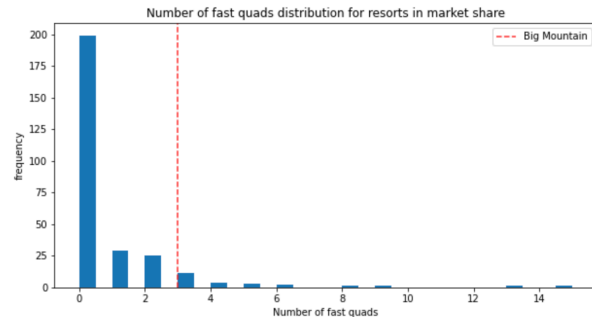
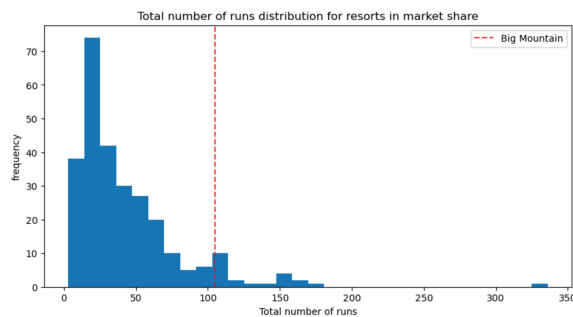
Big Mountain Resort set an objective to redefine the lift ticket pricing to a data driven strategy that can illuminate insights on value, operational costs, and ultimately drive revenue. Using a machine-learning model trained on data from more than 300 ski resorts in the US, we have determined that Big Mountain Resort's lift tickets are currently underpriced and have room for growth. Additionally, we have identified pros and cons for the cost cutting/revenue generating scenarios proposed to help guide Big Mountain Resort to the decisions that will maximize revenue.

Our Machine Learning Model set a price target of \$97.96 with a error margin of \$10.36. With the current ticket price at \$81, this indicates ticket prices could be increased by \$6.60 - \$27.32 per ticket

By adopting this model for a data driven pricing strategy, Big Mountain Resort could generate additional revenue by an an estimated \$11.55M - \$47.81M per season.

How we came to this conclusion

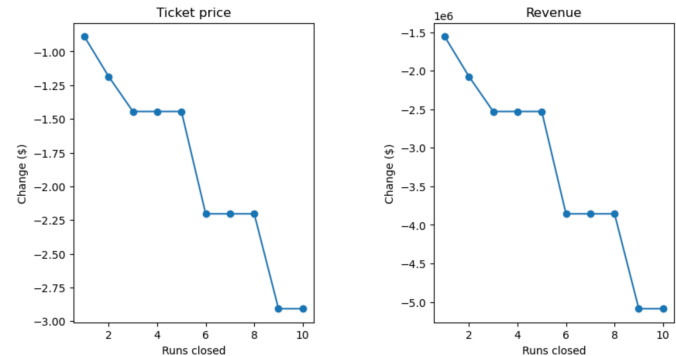
We arrived at this conclusion through careful and thoughtful analysis of the data gathered for the other ski resorts in the country and the amenities available at Big Mountain Resort. Through a process called scaling, we were able to determine which key features had the most significant correlation to the ticket price. Number of Runs, Number of Fast Quad Chair Lifts, Acres of Snow Making, and Total Vertical Drop were the top 4 features that drive the most value. After identifying these key features, we also were able to see that Big Mountain Resort was above average in all of these categories. Then using a Random Forrest algorithm, the pricing model compared the key features available at Big Mountain Resort across the market to determine the value in measure of the ideal ticket price.



Analysis of operation business options:

Option1 - Permanently close down up to 10 of the least used runs

Our pricing model ran pricing recommendation of closing 1 to 10 runs. In each result, the model showed a lower ticket price and therefore lower revenue. There is a steady decline in ticket prices by closing 1 to 3 runs, then a level price of closing 3-5 runs, a sharp decline in closing 6 runs, a level price closing 6-8 runs, and another sharp decline to closing 9 runs.



Pros - This option could potential lead to savings in operational cost

Cons - This option lowers the target ticket price and lowers the potential additional revenue

Recommendation - This option should only be considered if there is significant savings in Operational Cost. Without those savings, this option will decrease potential revenue.

Option2 - Increase Vertical Drop by adding a run to a point 150 feet lower in elevation. This option requires an additional chair lift to bring skiers back up. No additional Snow Making will be added.

The pricing model indicated that adding this additional run and chair lift and thereby increasing the vertical drop of the resort will have a positive effect on ticket prices. The model shows tickets will increase in value of \$2.22, generating an estimated \$3.885M in revenue.

Pros - Increased ticket price and revenue, plus added key features to the resort.

Cons - Adding these features will have a cost to build and install, plus additional operating costs. If those costs exceed \$3.885M this may not add additional profit.

Recommendation - Based on the data showing the newest chairlift's operational cost is \$1.54M, it is highly likely that this option will prove profitable. Before moving forward, run an analysis on the cost of the build and installation of this additional run and chair lift. If the install and operational cost exceed \$3.885M consider Capex cost for a longer term investment for returns.

Option 3 - Same as option 2 but adding additional snowmaking to the new run.

Our pricing model showed that this will add no value to the ticket price. Unless Snowmaking is necessary to make the new run skiable, this option will only add costs and no potential for additional revenue.

Option 4 - Increase the longest run by 0.2 miles to boast 3.5 miles length. This will require additional snow making for 4 acres.

Our pricing model showed that this will add no value. This option is not recommended because it will add no value to the resort.

Future Scope of Work

We recommend that Big Mountain Resort adopts the Machine Learning pricing model as a data driven solution to drive revenue. For next steps we recommend a similar analysis of operating costs to help maximize bottom line profit.