Big Mountain Resort Project Report

I think we need to think outside the box, the ticket price of the resort is not the only thing we can optimize to increase the revenue to recoupon the operation cost of the new chair. I think we should focus on the volume of the tourist at the resort and the overall tourist experience at the resort.

I believe the profitability of the Big Mountain Resort does not only depend on the attributes of the resort which are described in the data from the data source. It also depends on the ecosystem of the resort and demographic of neighbor states. I also would like to know more about the Big Mountain Resort like how much percentage money earned from the hotel, restaurant, commercial space rent and ski tickets etc. I also would like to know at what capacity the resort park is hosting. Maybe we could work on some ad campaign to attract and host more tourists. Also work on the long run, building a place of interest, tourism ecosystem at Big Mountain Resort village.

In [GuidedCapstoneStep5HL](https://drive.google.com/file/d/1uGx8XYNMfAafaCaJ19Ds_6xZjubIpoeI/view?usp=sharing):

For the R-Squared value and mean absolute error for Model 1 is:

-6.03720691218604e+19

16286724001.27278

For Model 2:

0.631183371784624

7.003619906395152

For Model 3:

0.6433285836974777

6.803536903910499

Since the R-Squared explains how well the linear regression covers the observations, and the mean absolute error indicates the error, we choose the largest R-Squared value and lowest error which is the Model 3.

From the 330 resorts data and the linear model we build, we found there is strong correlation between the weekend adult ticket price and vertical drop(Elevation of the summit mountain to the base) and number of terrain parks in the resorts.

The larger coefficient means that the variable has a bigger magnitude impact on the AdultWeekend ticket price. Here is the sorted descending list:

Coefficient

AdultWeekday 10.472130

vertical\_drop 2.451226

TerrainParks 2.183509

LongestRun\_mi 2.077653

SkiableTerrain\_ac 2.051704

projectedDaysOpen 1.948651

daysOpenLastYear 1.932328

quad 1.823765

surface 1.328674

double 1.166103

From the list, we know that the vertical\_drop is not something that we could change. So we can focus on building more terrain parks and expand the skiable terrain inside the resort to increase the ticket price.

**Conclusion**

Focus on the long run, building resort tourist ecosystems. Focus on the tourist experience and run the resorts more efficiently and bring joys to a larger scale(larger volume) of tourists.

Only focus on the ticket price of the ski resort is thinking in the box, we should do market research to optimize the revenue of the ski resort.