Project Report

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Client Name: Big Mountain Resorts

Client Background:

Big Mountain Resort is in north-western Montana. Big Mountain Resort offers spectacular views of Glacier National Park and Flathead National Forest. The resort originally opened in 1947 with an annual snowfall of 333 inches and 3,000 acres of skier and rider accessible terrain. Big Mountain Resort offers access to 105 named trails and vast bowl and tree skiing.

Client Requirement:

Recently, Big Mountain Resort installed a new chair lift. This additional chair increases their operating costs by $1,540,000 this season. The client is looking forward towards our recommendation for keeping the prices sustainable and competitive.

Data Source:

We have a dataset of 330 resorts in the US that are in the same market as Big Mountain Resorts.

My findings:

Big mountain has a relatively high ticket price set at $81. Modeled price is $95.87, absolute mean is $10.39.

Big mountain has a high number of chairs, and it would be unwise to increase the number of chairs, because that would increase the money spent on upkeep.

The expected number of visitors over the season is 350,000 and, on average, visitors ski for five days.

They could add data that provides the additional lift that Big Mountain recently installed. They might want to raise the ticket price to cover the additional operating cost.
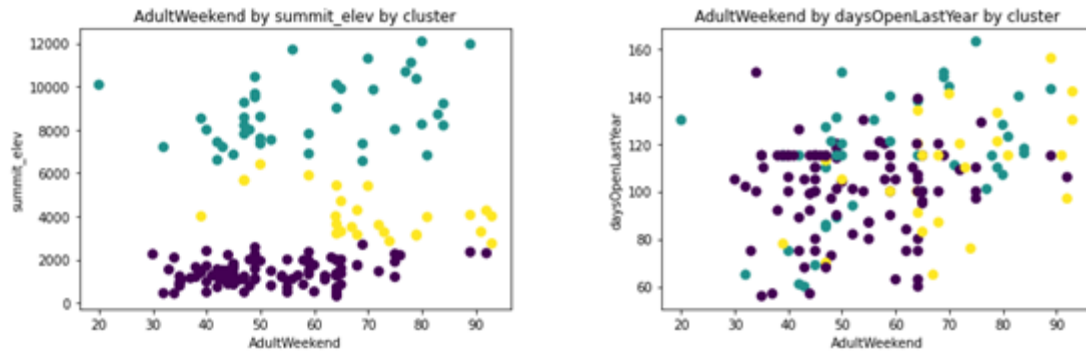
Scatter plots of the response variable (AdultWeekend) against features with the highest coefficient according to our model (1A - summit_elev, 1B - daysOpenLastYear). Colors in the dots represent different clusters.

This explanation from this model can be visualized by inspecting the correlation between the response variable (AdultWeekend) and 2 of the features with the highest coefficient values according to our model, summit_elev = 2.56 and daysOpenLastYear = 2.45 (Figure 1). From the scatter plots, it is clear that the association between the response variable and the feature with the highest importance is weak.

Since features such as ski resort location, mountain characteristics and transport within the resort poorly explain the outcome of the response variable, my recommendation is that it would not be justified to increase the adult price tickets during the weekends just because an additional chair lift was installed in the resort. Therefore, to recover the investment in this equipment, big mountain resorts should consider opportunities in decreasing the maintenance cost of the chair lifts.

I would need more information that would dictate increasing the ticket price. That is, will there be additional hires due to more lifts? More insurance cost, etc.