

## Introduction

The goal of this report is to show our findings and discuss recommendations in regards to the price of Big Mountain Resort's adult weekend ticket price. The resort managers would like to know how they can maintain their revenue for this season and recoup their expense on the new chair lift and its operating cost. The current price of an adult weekend ticket at Big Mountain Resort is \$81.

## Methods

We created a model to predict what the price of an adult weekend ticket at Big Mountain Resort should be based on features of comparable ski resorts and their ticket prices. The model selected did not include the features state, summit elevation and base elevation, since these are not attributes that the managers at Big Mountain resort can change. Based on correlation coefficients we determined that the most important features/actionable traits were vertical drop, number of runs, number of quad chair lifts and average snowfall.

## Results

Figure 1: We found that summit elevation is highly correlated with vertical drop, and therefore was dropped as a feature in determining ticket price.

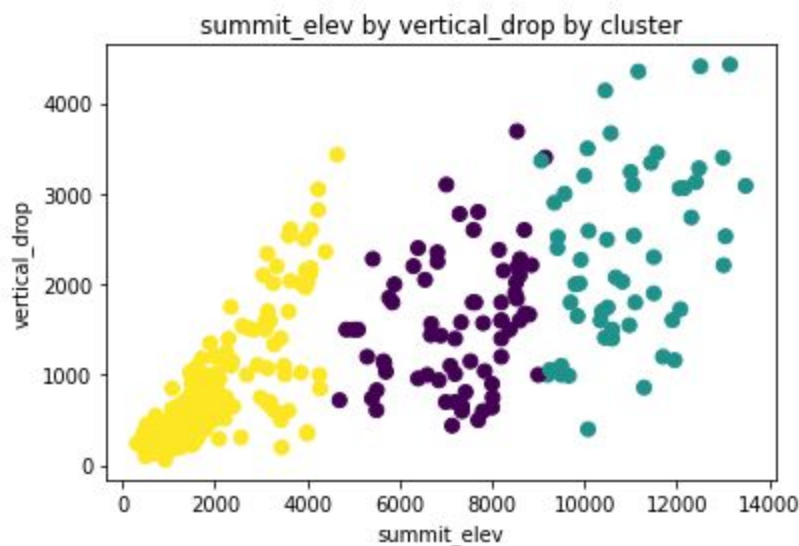


Figure 2: Average snowfall for the resorts was less in resorts with a smaller vertical drop.

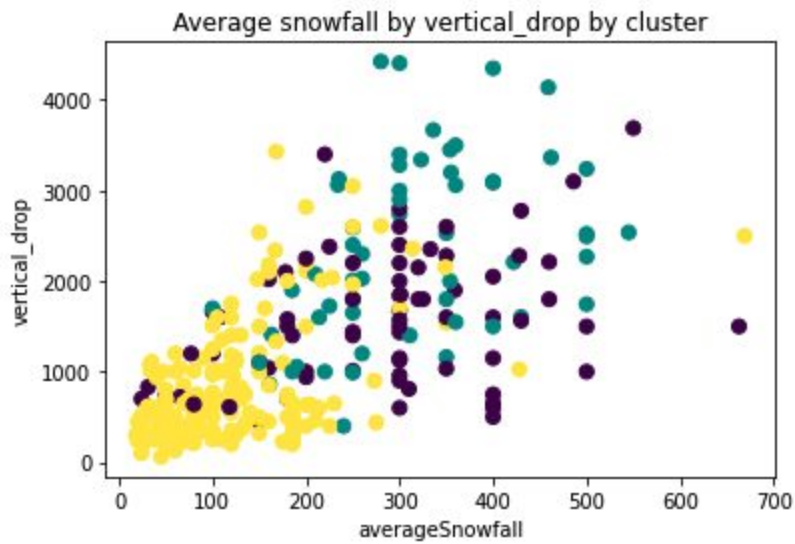
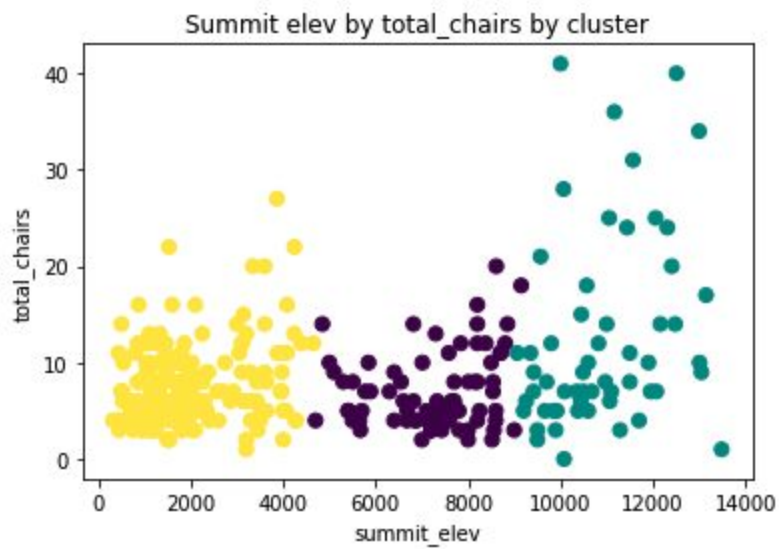


Figure 3: Summit elevation was also correlated with total chair lifts.



**Recommendation**

Based on our findings, it is recommended that the price of the adult weekend ticket at Big Mountain Resort be \$64.08. It is also recommended that a similar model be created to predict the price of the adult weekday ticket. The data did not provide any information on revenue for the resorts, so we were unable to determine expected revenue for the resort season if Big Mountain were to implement our recommendation.

