

## Objective

Big Mountain Resort is a prominent ski resort in Montana, that serves about 350K visitors per year for all ski/snowboard levels. Currently, the resort is pricing their premium tickets above market, and recently installed chair lifts costing \$1.5M to accommodate the visitors. The resort is seeking guidance on optimizing ticket prices, reducing operational costs, understanding the importance of various facilities compared to others, and exploring changes to support the current or higher ticket prices.

## Criteria of Success

- Big Mountain Resort is seeking to increase revenue through optimizing its price strategy and facilities usage.

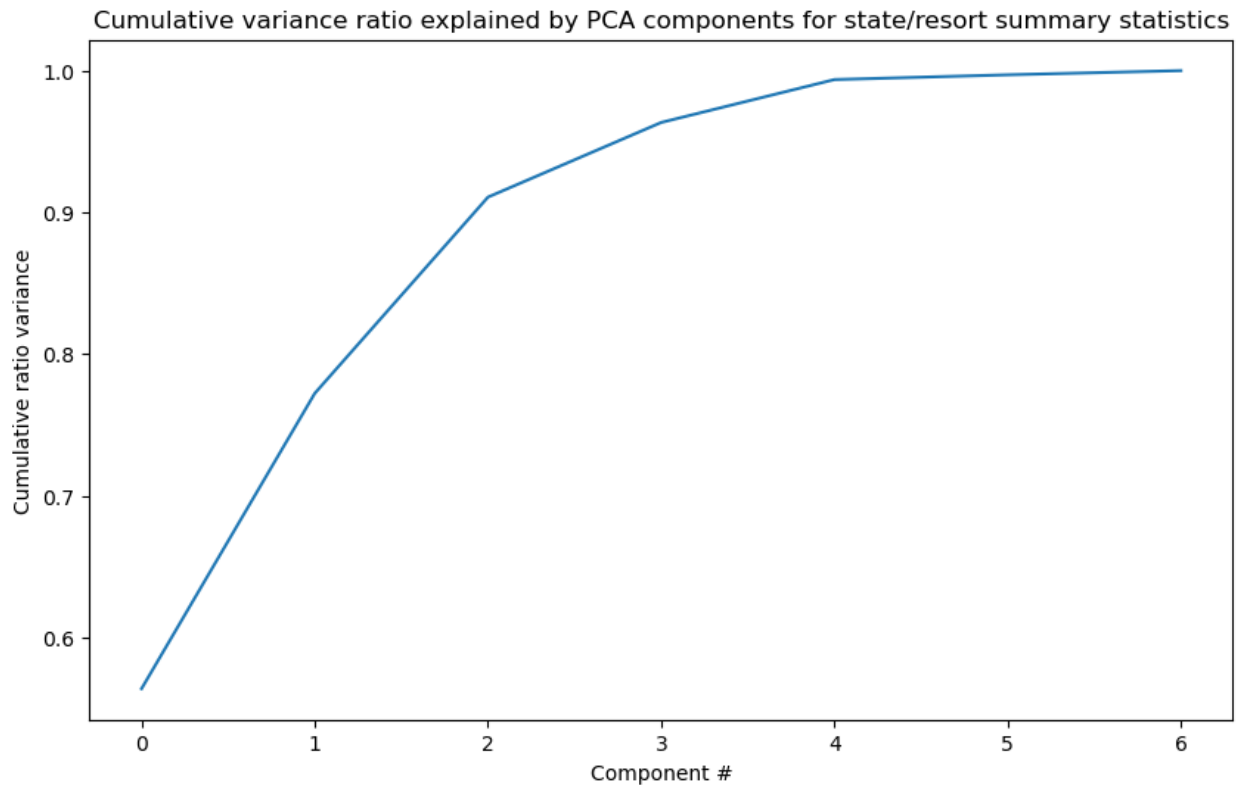
## In-Scope

- Compare facilities to understand its usage and importance for costs operations and maximize monetization efforts
- Identify where to cut operations costs
- Increase ticket prices or keep the same price

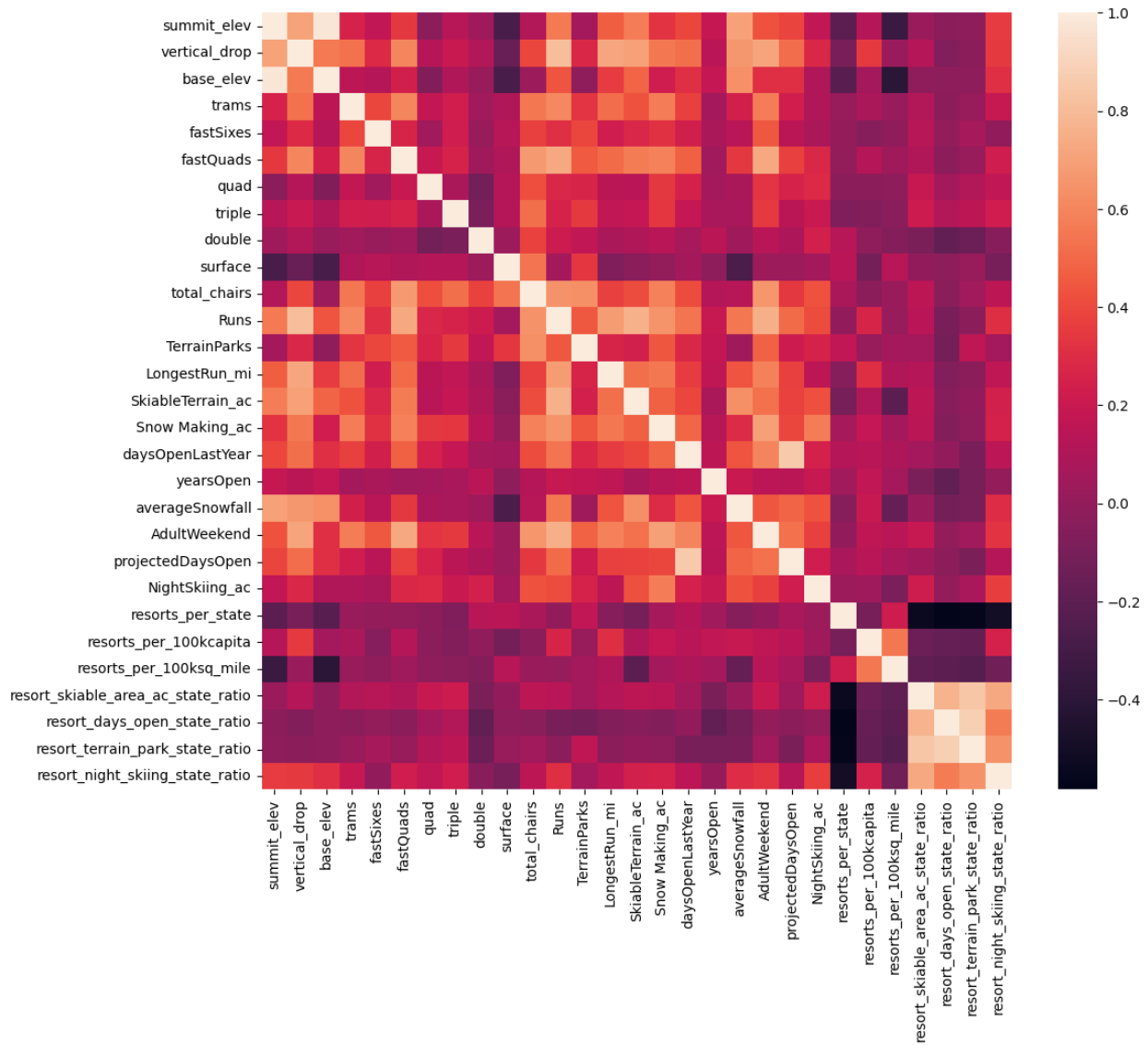
## Analysis

The preference for night skiing in northern/eastern states may stem from shorter daylight hours, prompting the extension of skiing days. The comparison of states does not require absolute size; rather, it focuses on the ratio of resorts serving the given population and area. Analyzing the number of resorts per 100k population and per 100k square miles eliminates larger states. The process involves scaling the data to normalize it, bringing it to a mean of 0.

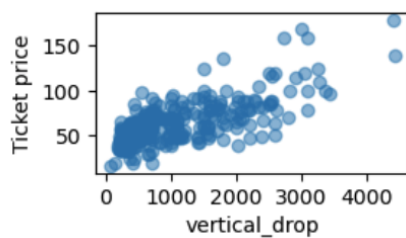
Shifting focus to ticket prices, Principal Component Analysis (PCA) provided summary statistics for state/resort differentiation, enhancing insights into weekend ticket prices.

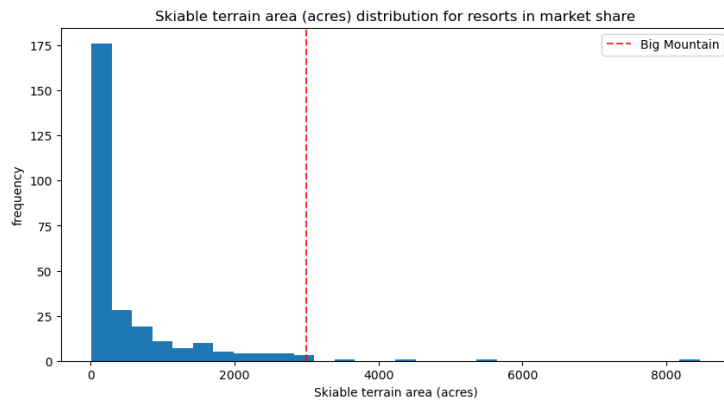
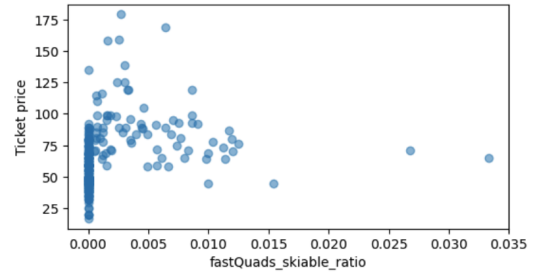
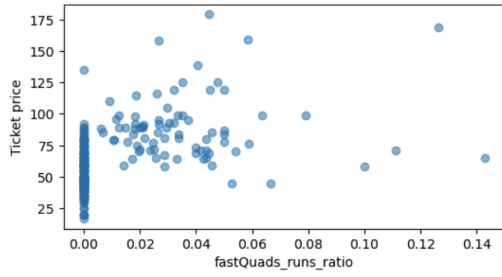
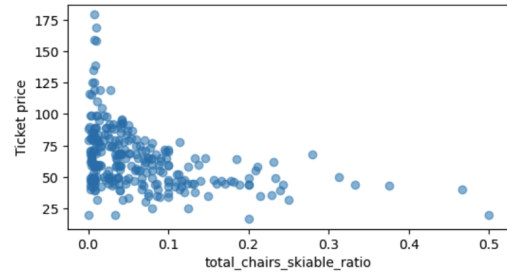
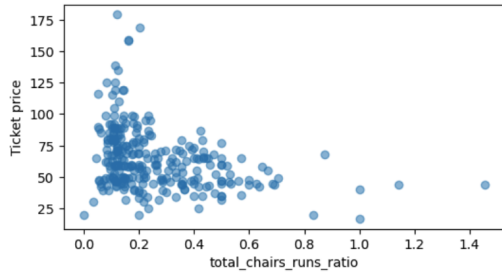


A correlation heatmap identified strong correlations, such as summit/base elevation, night skiing, and resorts per capita. Exploring the "AdultWeekend" field revealed correlations with factors like snow making and runs.

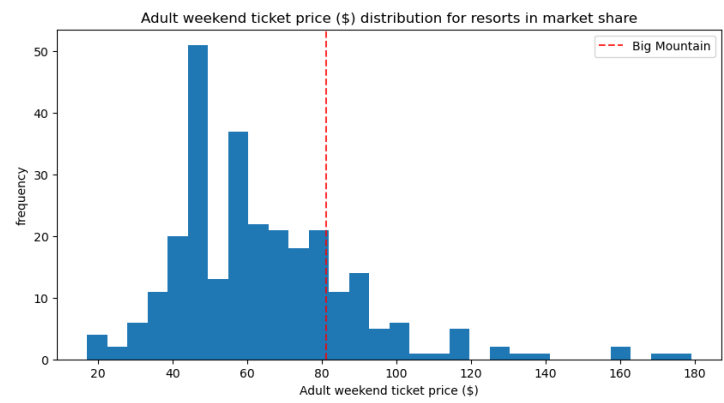


Scatter plots highlighted significant correlations, including vertical drop and projected days open. Lastly, the correlation between ticket prices and chair/runs, along with having a quad lift, could impact ticket prices positively.

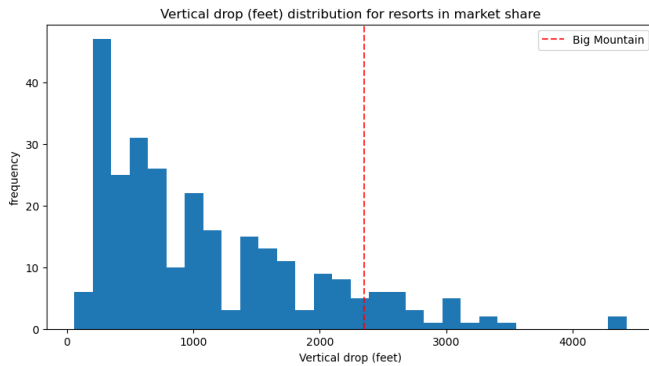




Big Montana is amongst the resorts with the largest amount of skiable terrain.

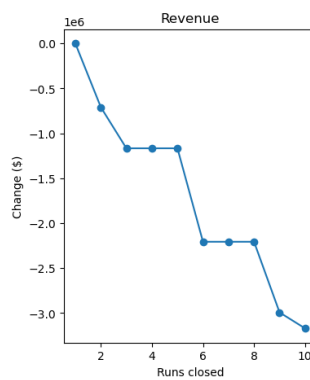
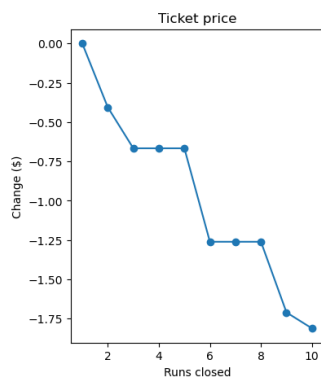


It is also priced competitively, compared to other resorts.



Although Big Mountain is doing well in terms of vertical drop, other resorts are offering more.

Now that we have explored some of Big Mountain's competitive geographical advantages, let's explore the models that were tested.



Closing the least-used run won't affect revenue, but shutting down runs ranked 2nd to 5th may weaken support for the current ticket price.

The current price for an adult ticket is \$81 and the three pricing models were tested. The pricing model with the most positive impact anticipates a revenue increase of 3.47M dollars. This projection is based on raising the ticket price by \$1.99, adding a new run 150 feet lower, and installing a new chair lift, assuming an average of 5 days of skiing for 350,000 visitors in the upcoming season. It's crucial to note that the model does not factor in additional capital and operation costs, as this information is unavailable. Adding the new chair lift is expected to increase operating costs by \$1.54M.

## Recommendations

This pricing model recommendation would raise the price above \$83, or higher, however, this would require Big Mountain to make enhancements to the facility to support the increase. The resort price is already positioned competitively compared to other resorts offering similar amenities. Improving Big Mountain's facility to charge higher prices aims to attract more visitors, capitalizing on

its geographical advantage. This strategy strengthens its competitive position in a favorable market cycle.

To enhance the model further, I would also recommend the company to gather and collect additional data from the following sources: operating cost, visitor volume across the U.S., customer market survey preferences, expectations, and willingness to pay for specific amenities and services, and continuing competitive market analysis. In addition, we could also assemble a cross-functional team of business experts to explore the model and validate the business assumptions through testing.