

# Big Mountain Resort



# Problem Identification

**Planning**: invest an addition chair lift, and charge the price above the average market price

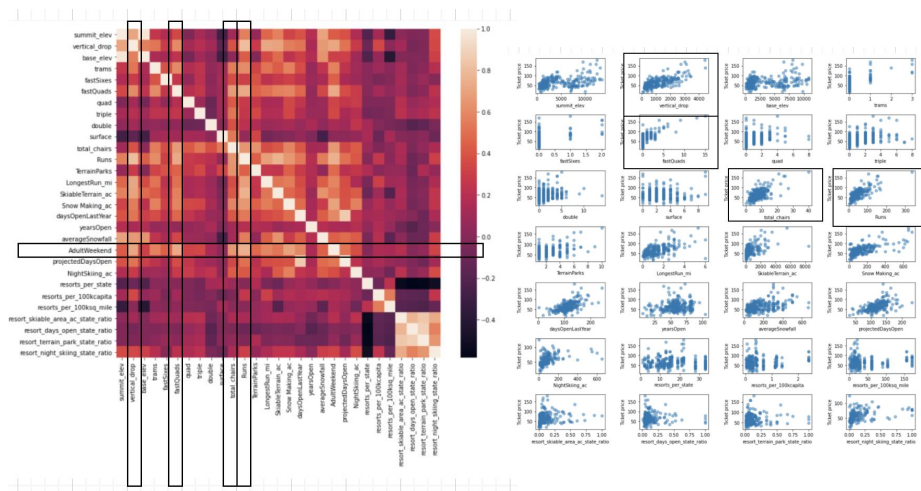
**Operating cost**: increase by \$1,540,000 this season

**Goal**: identify the competitive ticket prices, and opportunity to improve the profit.



# Important factors affect the price

- Top 4 features: Vertical\_drop, FastQuads, Total\_chairs and Runs
- Big Mountain predict price: \$94.22
- Mean absolute error: \$10.39



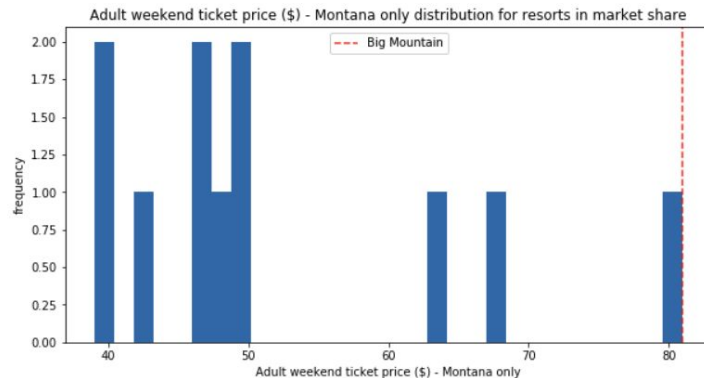
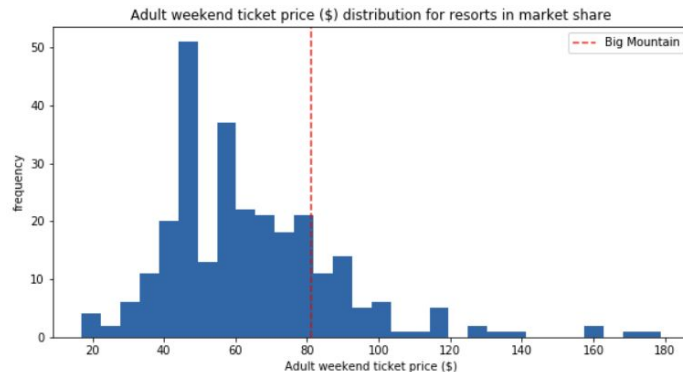
## Heatmap

## Scatter plot

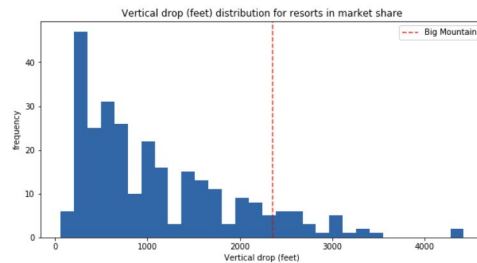
## The relationship between ticket price with other features

# Model results and analysis:

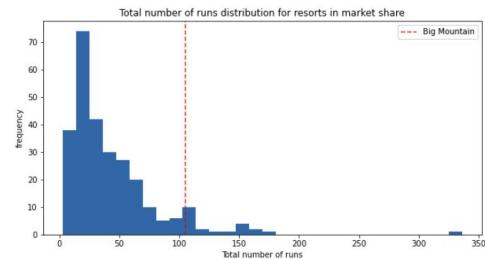
Ticket price distributions of Big Mountain comparing to the market, and Montana state.



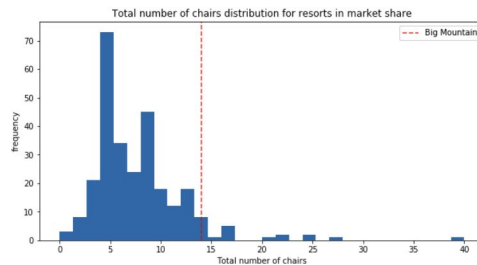
# Distributions of top 4 features



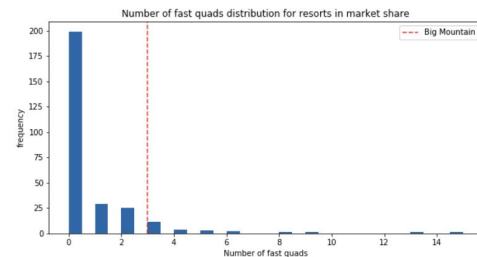
Vertical Drop



Total number of runs



Total number of chairs



Fast quads

# Recommendations

Two model scenarios can increase the ticket price to \$2 more that can increase the revenue to **\$3,464,638**:

- Adding a run to increase the vertical drop by 150 feet, and installing an additional chair lift ( as planned).

OR

- Adding 2 acres of snow making cover



# Conclusion

Big Mountain resort can improve in the next coming year, particularly with an extra lift chair. The business can raise the ticket price to a competitive value compared to the market rate and still generate high increase in revenue.