# Big Mountain Resort Pricing Model

By Garrett Wankel

# Problem Identification

## Context:

Create a pricing model by comparing and weighing the value of facilities within our competition market instead of applying an arbitrary premium based on average competitor prices. Consider upgrading equipment to increase serviceable area, and/or cutting services to mitigate expenses.

## Criteria for Success:

1. Implement gradual ticket price changes and achieve new price by halfway through season
2. Prioritize lift speed to increase runs per day per skier
3. Close 1-2 least  used runs, flag for renovation

## Scope of Solution:

Determine what  facilities correlate to increased lift tickets across our market, how these measurements compare to ours, and invest in building out these facilities to increase ease accessibility for our customers.

# Problem Identification

## Constraints:

1. Lack of clarity into how often trails are being used and during what points of the day trails are skied most.
2. Difficulty in determining guest experience with chair lifts
3. Difficulty in determining current reasoning for guests choosing Big Mountain over competing resorts

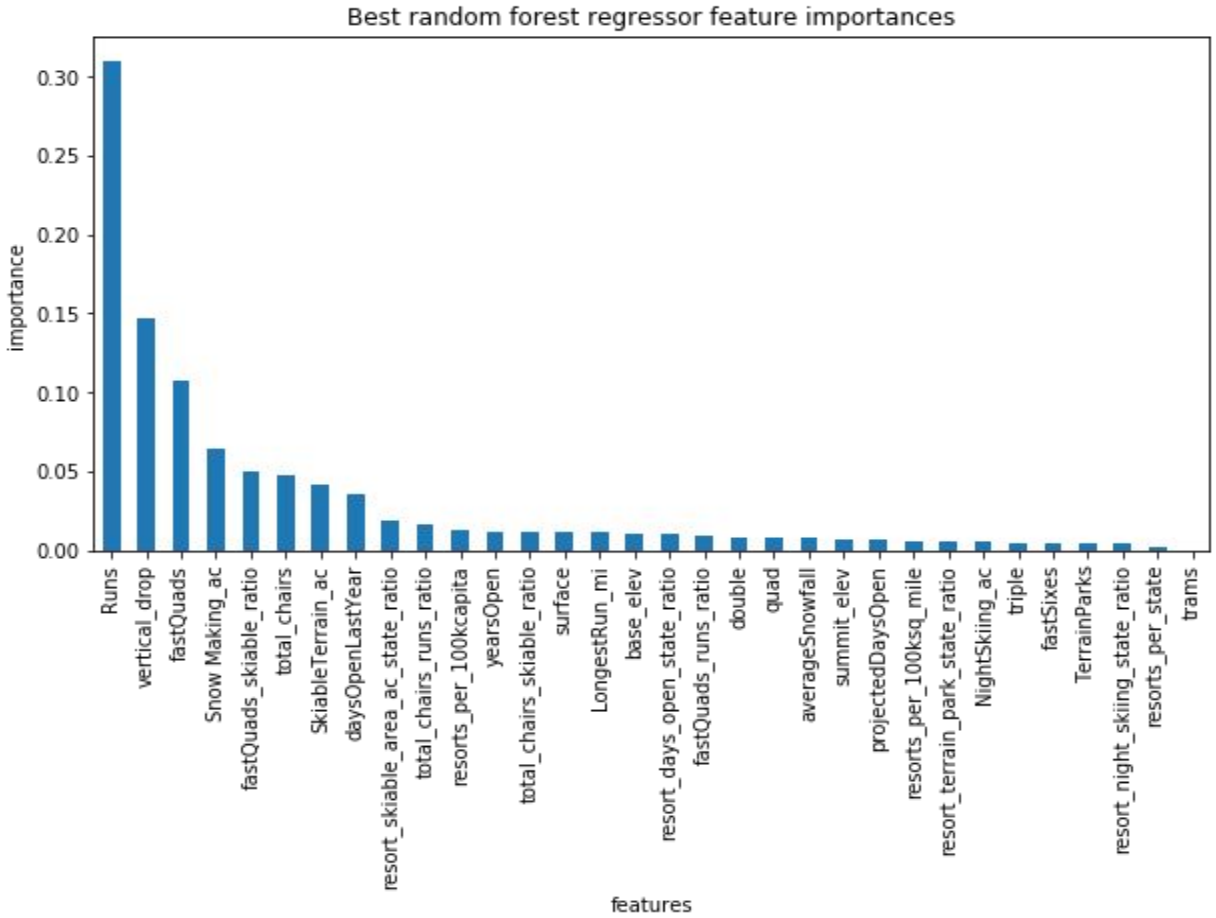
## Key Stakeholders:

Jimmy Blackburn -- Director of Ops
Alesha Eisen -- Database Manager

## Data Sources:

1. CSV file -- Received from Database Manager

# Facility Importance

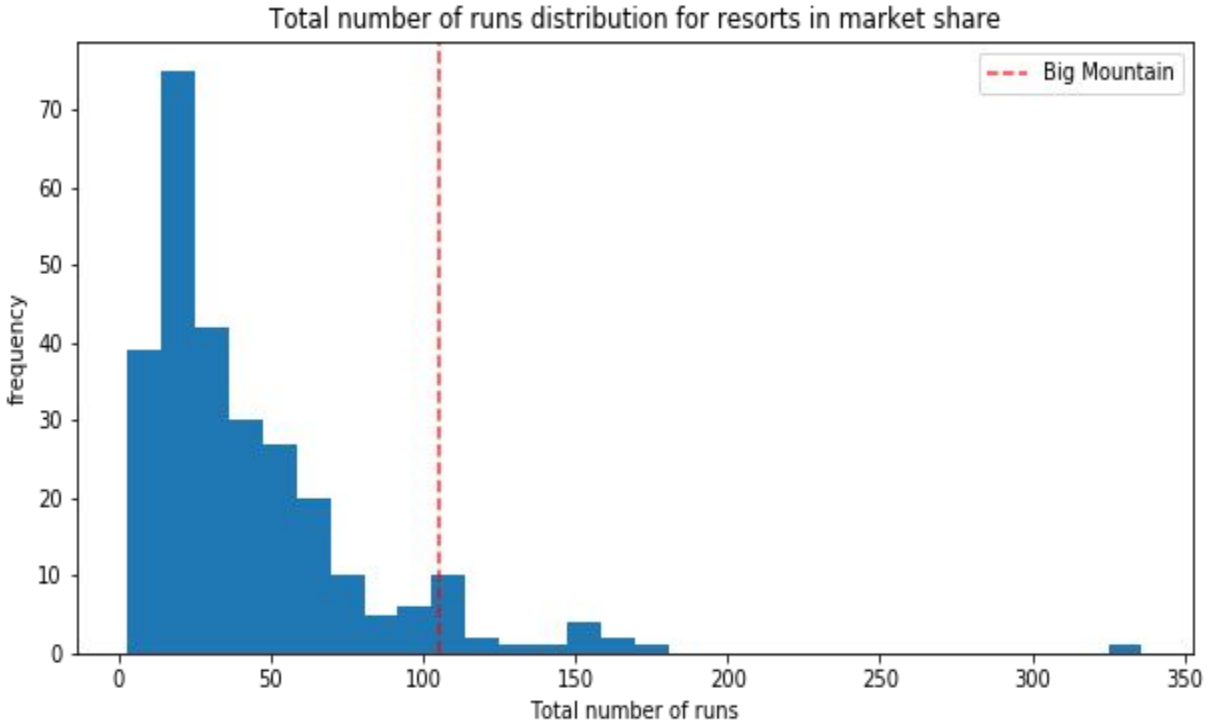



## What this means:

- **Runs, Vertical Drop** and **Fast Quads** are the most influential metrics when determining lift ticket price.

- In other words, customers are potentially most concerned with how many runs we have, what the change in elevation is from top to bottom, and how fast can multiple people get back to their favorite runs.

# Runs per Resort

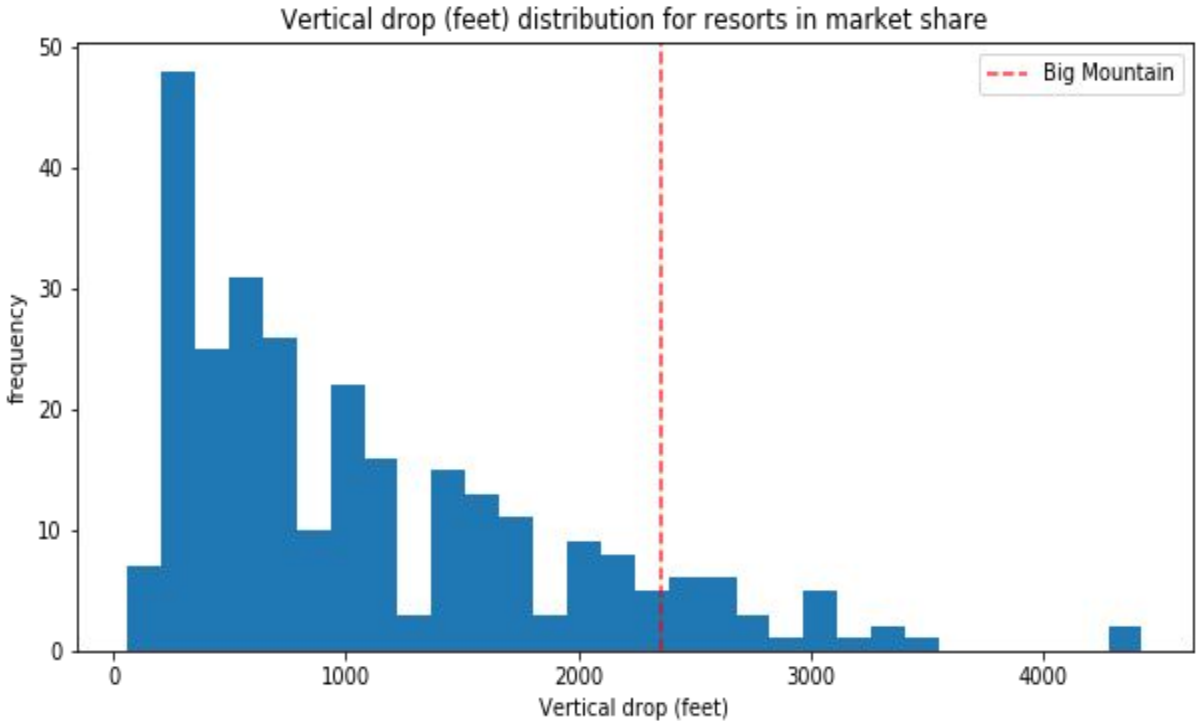



## What this means:

- Big Mountain lies within the upper echelon of total runs per resort within our market share, which bodes well for increasing positive customer experience and a higher than average ticket price.

- If we were to close runs, we would still remain within top segment of total runs offered.

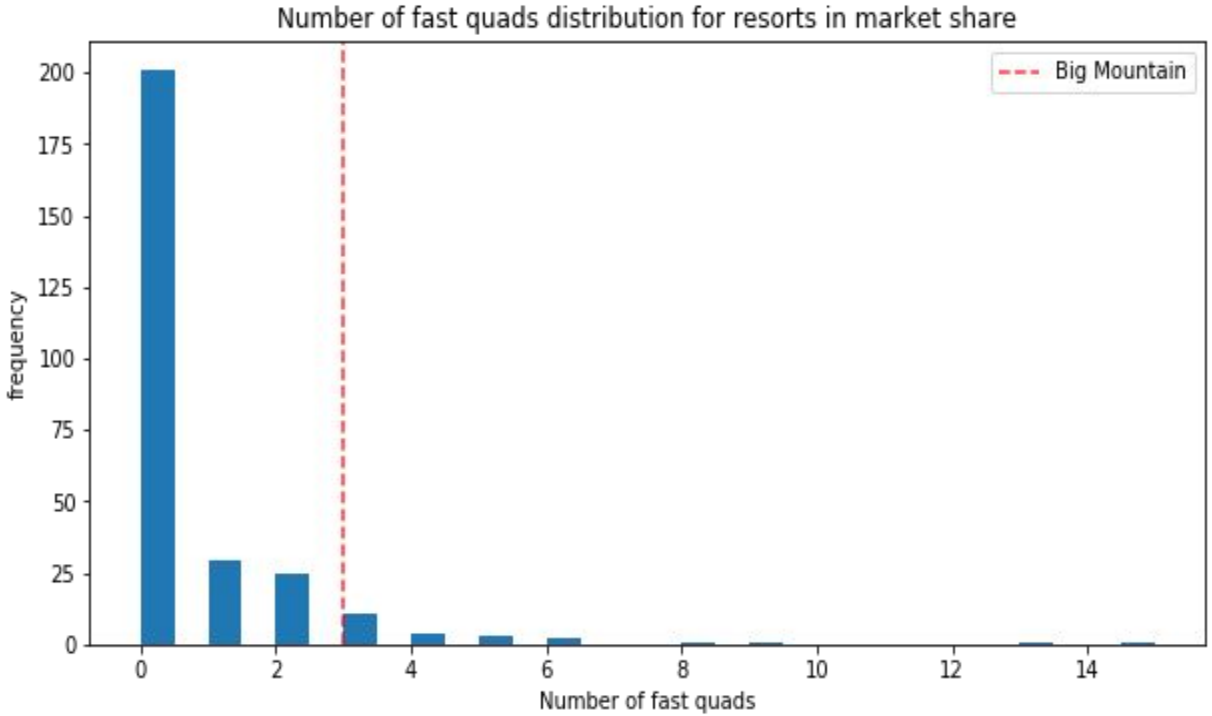
# Peak Vertical Drop




## What this means:

- Although Big Mountain is in the upper range of vertical drop experience offered, there is room for improvement with this metric.
- Considering how important this metric is correlated with customer experience and ticket pricing (**#2**), even a modest increase in vertical drop offered will help justify an increase in ticket price.

# Fast Quads available




## What this means:

- Most resorts within our market segment have **0** fast quad chair lifts. Big Mountain has **3** available.
- We have already differentiated our services in regards to this metric, but installing **1** or **2** more will drastically increase our speed of service to our resort's skiable terrain.

# Modeling Results

## Modeling price vs. Actual:

- Currently, Big Mountain charges $81.00 per ticket. The model I created predicts that an appropriate price is closer to **$91.29** with an expected mean absolute error of $10.46. With no facility improvements, even a marginal increase in Big Mountain's per ticket price seems prudent.

## Closures and Improvements:

- Given Management's interest in closing runs, if Big Mountain were to close **2** runs, it would create a loss in revenue of **($1,420,290).** This capital could be saved and spent towards improving the more popular runs or improving/renovating the closed runs.
    - Closing runs and reducing skiable area both lead to a decrease in ticket price, but without expense data, it is impossible to tell if the revenue and price decrease in closing runs and reducing skiable terrain is offset by saving money from operating said runs.

- After further testing, if Big Mountain were to install or upgrade 1 chair lift to a **Fast Quad**, increase the **vertical drop** approximately 200 feet, and create only 4 more acres of **skiable terrain**, a ticket price increase of $25.45 would be suggested. But accounting for the mean absolute error of $10.46, a more conservative lift ticket increase of $14.99 becomes clear. Increasing lift ticket pricing by **$14.99** would also account for an increase in revenue of **$26,232,500** per year.

# Recommendations

- Operating expense data will help complete the picture and vital when determining any revenue offset from closing a run or renovating existing facilities.
    - Ex: What are the construction costs associated with increasing **Vertical Drop** by 200 feet or by renovating an existing chair lift?

- Begin measuring how many **runs per day** each customer is enjoying. This will provide valuable insight to why customers choose certain runs over others. Clearly available **Fast Quads** influences ticket price, so people prefer to access their favorite runs quickly and with the people they came to the resort with.

- The **Fast Eight** category was not even considered in the making of this price model, simply because all but one resort had one installed, so creating a business strategy centered on increasing skiable terrain by increasing vertical drop and by making that terrain easily accessible will drive a more customer-focused experience at Big Mountain.

- Increasing the number of "fast" chair lifts seems to be the single most important factor when determining ticket price because of the speed of accessibility it creates, and by providing a higher frequency to the resort's skiable terrain, customers can enjoy more of the resort per day. This can be achieved by upgrading to or installing more **Fast Quads** and possibly a **Fast Eight** chair lift.

- Based on current facilities and the validity of this model, Big Mountain Resort should increase its ticket price from $81.00/ticket to **$86.23/ticket.** Increase of Revenue = **$9,152,500** to be used to install and upgrade meaningful facilities.
    - Increase of **$5.23/ticket** represents half of the mean absolute error of model. Half was subtracted to not price-out our smaller customer pool, and to make the increase unnoticeable.

# Thank You Stakeholders!