BIG MOUNTAIN SKI

TICKET PRICING STRATEGY

CONTENT

PROBLEM IDENTIFICATION

Big Mountain suspects it may not be maximizing its returns, relative to its position in the market. It also does not have a strong sense of which facilities matter most to visitors, particularly which ones they're most likely to pay more for.

Objective n° 1

Increase Big Mountain Resort's net profit margin by ≥ 1% over the next ski season.

Objective n° 2

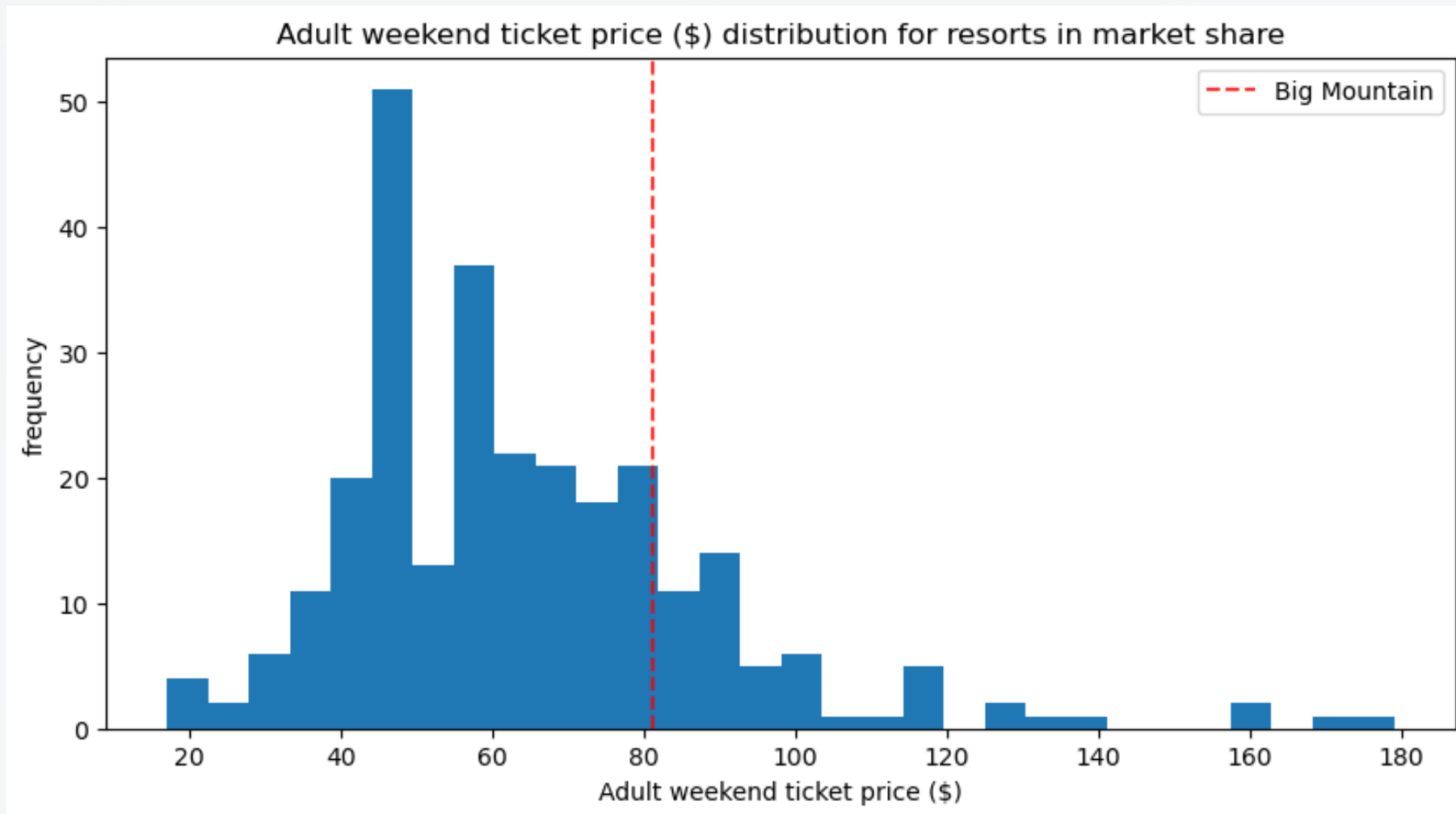Optimize ticket prices and facilities to align with market benchmarks and cost-effectiveness.

Objective n° 3

Understand potential scenarios for either cutting costs by closing runs or increasing ticket price

Adult weekend ticket price ($) distribution for resorts in market share
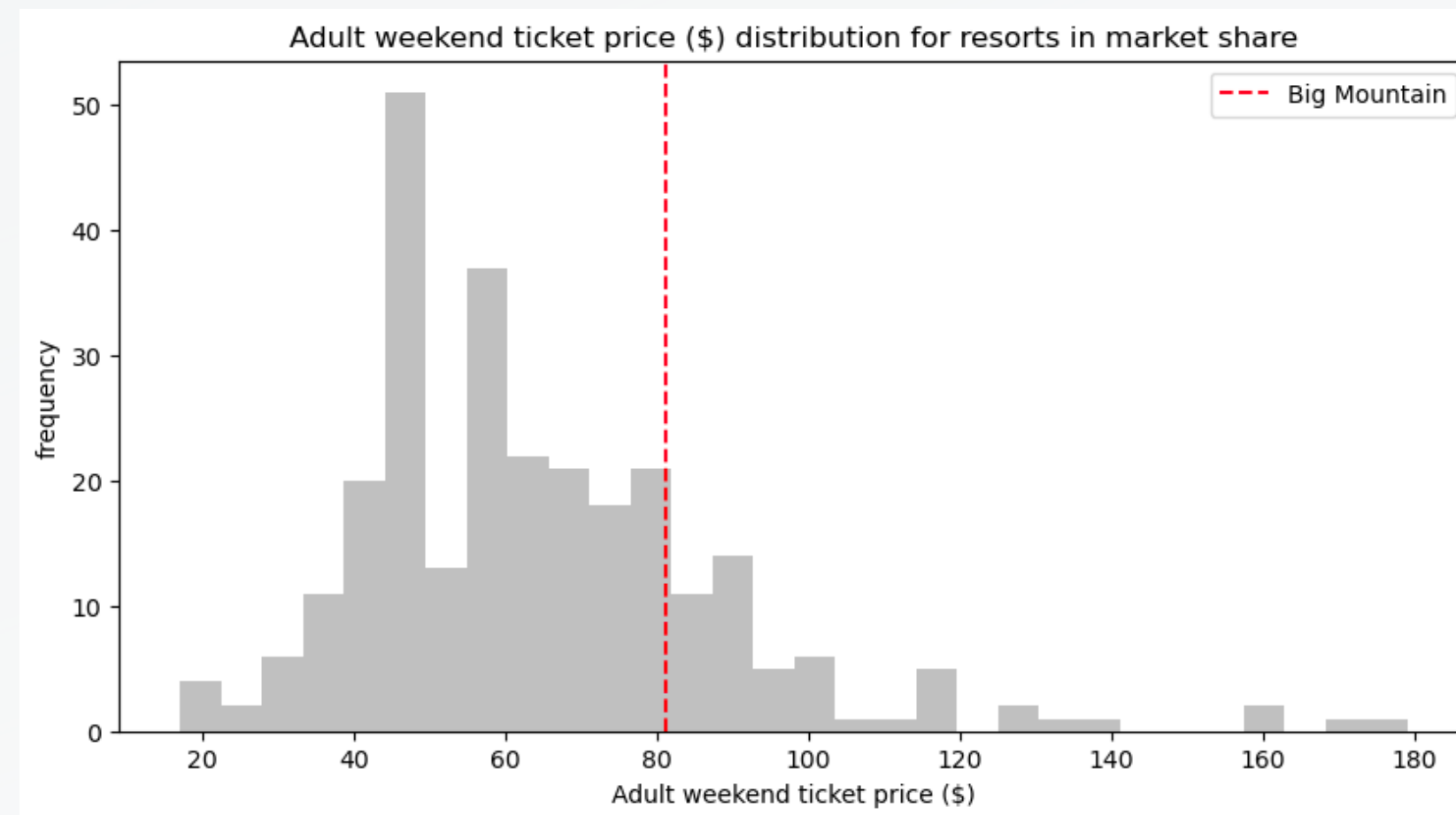
BIG MOUNTAIN TICKETS ARE ON THE UPPER HALF NATIONWIDE BUT AT THE HIGHER END OF MONTANA RESORTS

All Resorts

Montana Resorts

Adult weekend ticket price ($) distribution for resorts in market share

- - - Big Mountain

frequency

Adult weekend ticket price ($)

Adult weekend ticket price ($) - Montana only distribution for resorts in market share

- - - Big Mountain

frequency

Adult weekend ticket price ($) - Montana only

CURRENT STANDINGS

Vertical drop (feet) distribution for resorts in market share
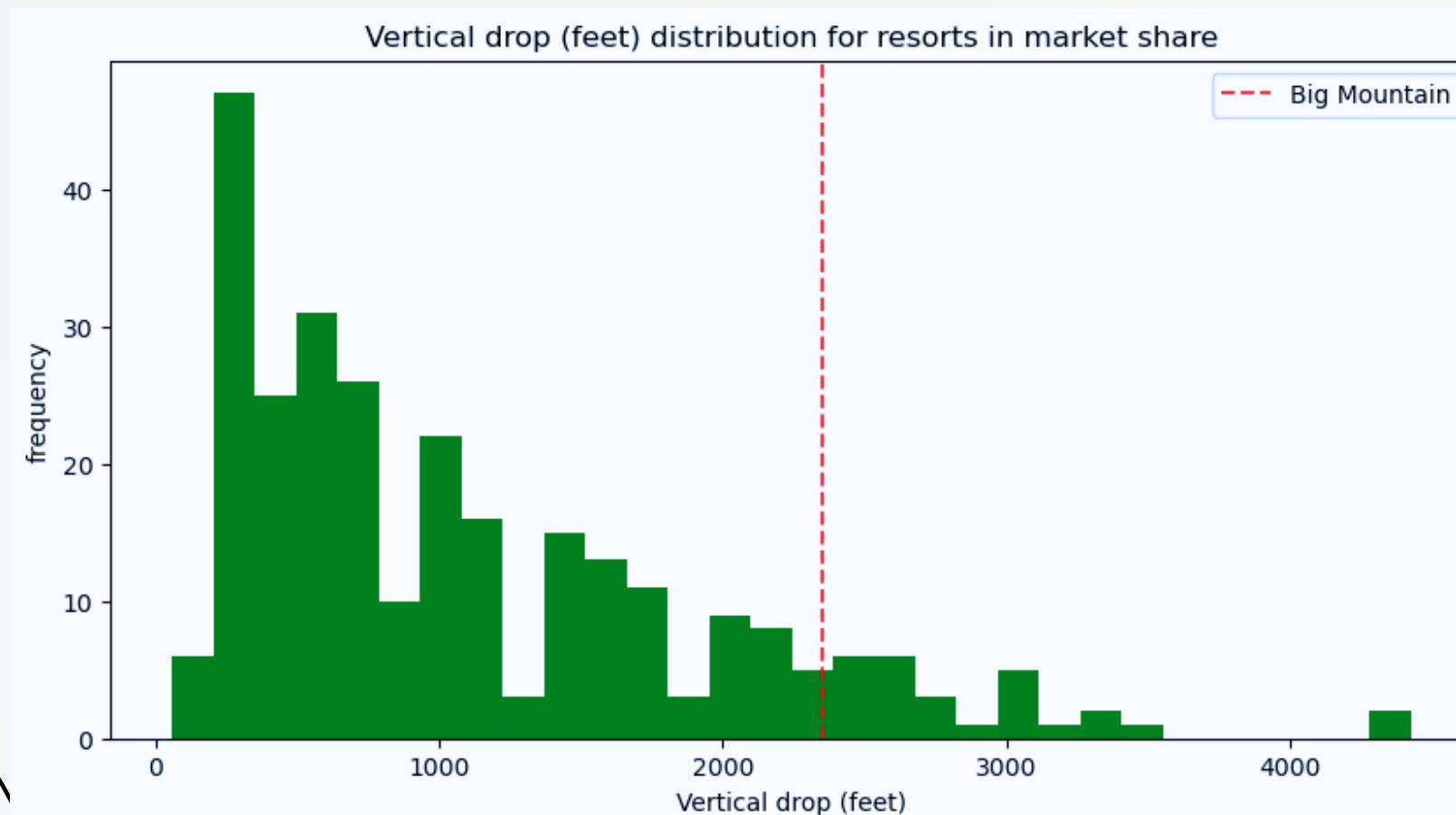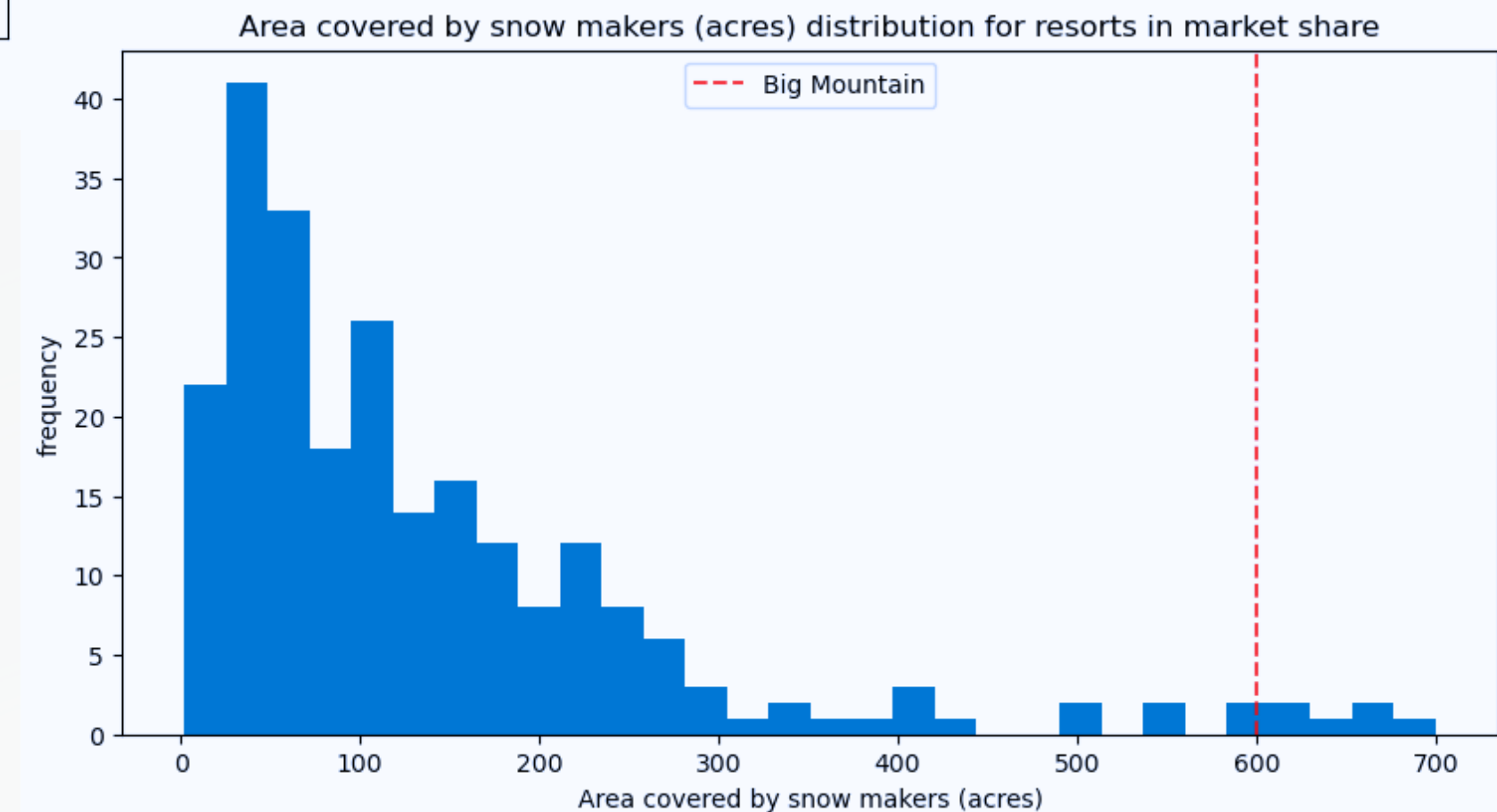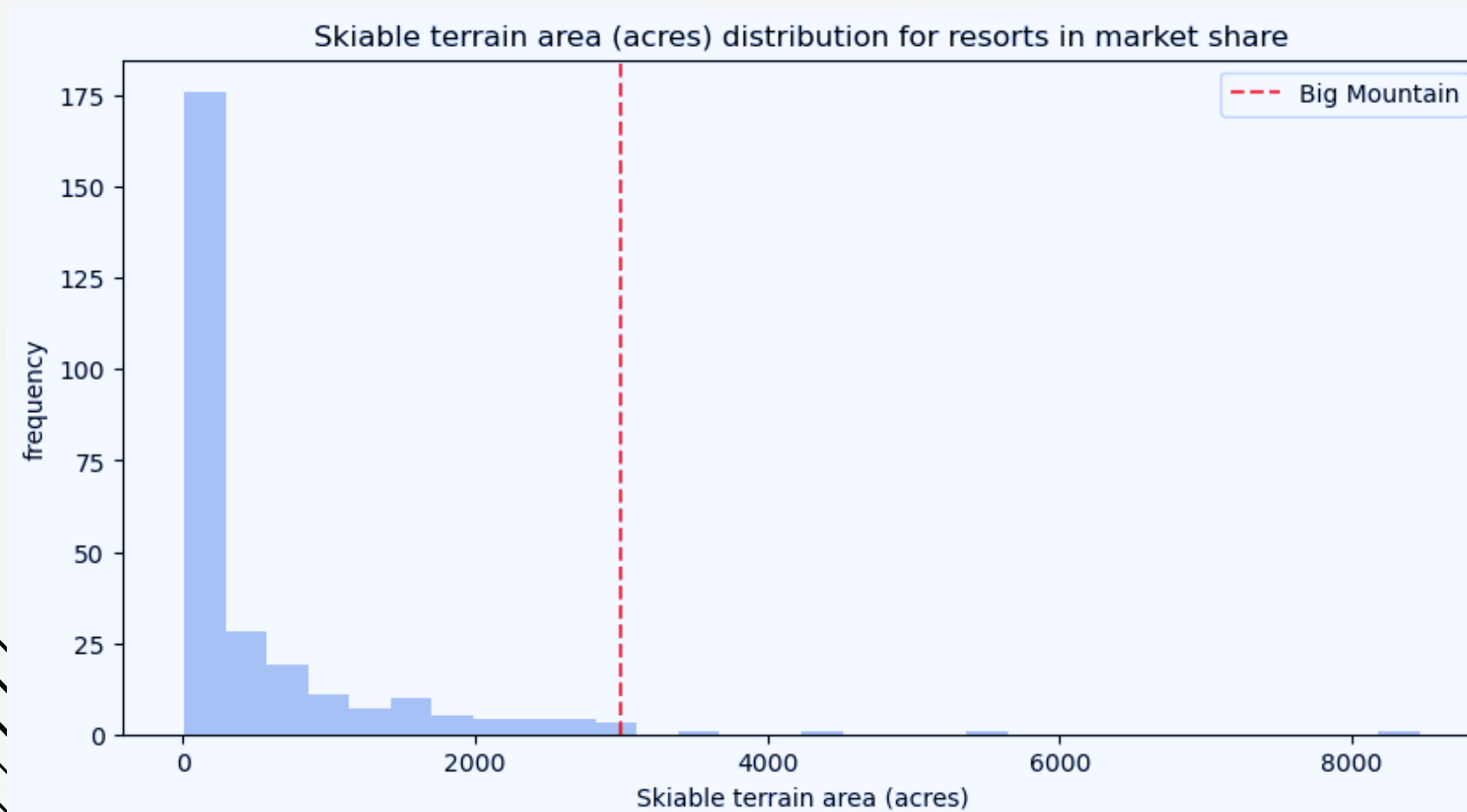
Big Mountain sits above majority of resorts in vertical drop of runs and area (acres) covered by snow makers

Area covered by snow makers (acres) distribution for resorts in market share

CURRENT STANDINGS

Skiable terrain area (acres) distribution for resorts in market share
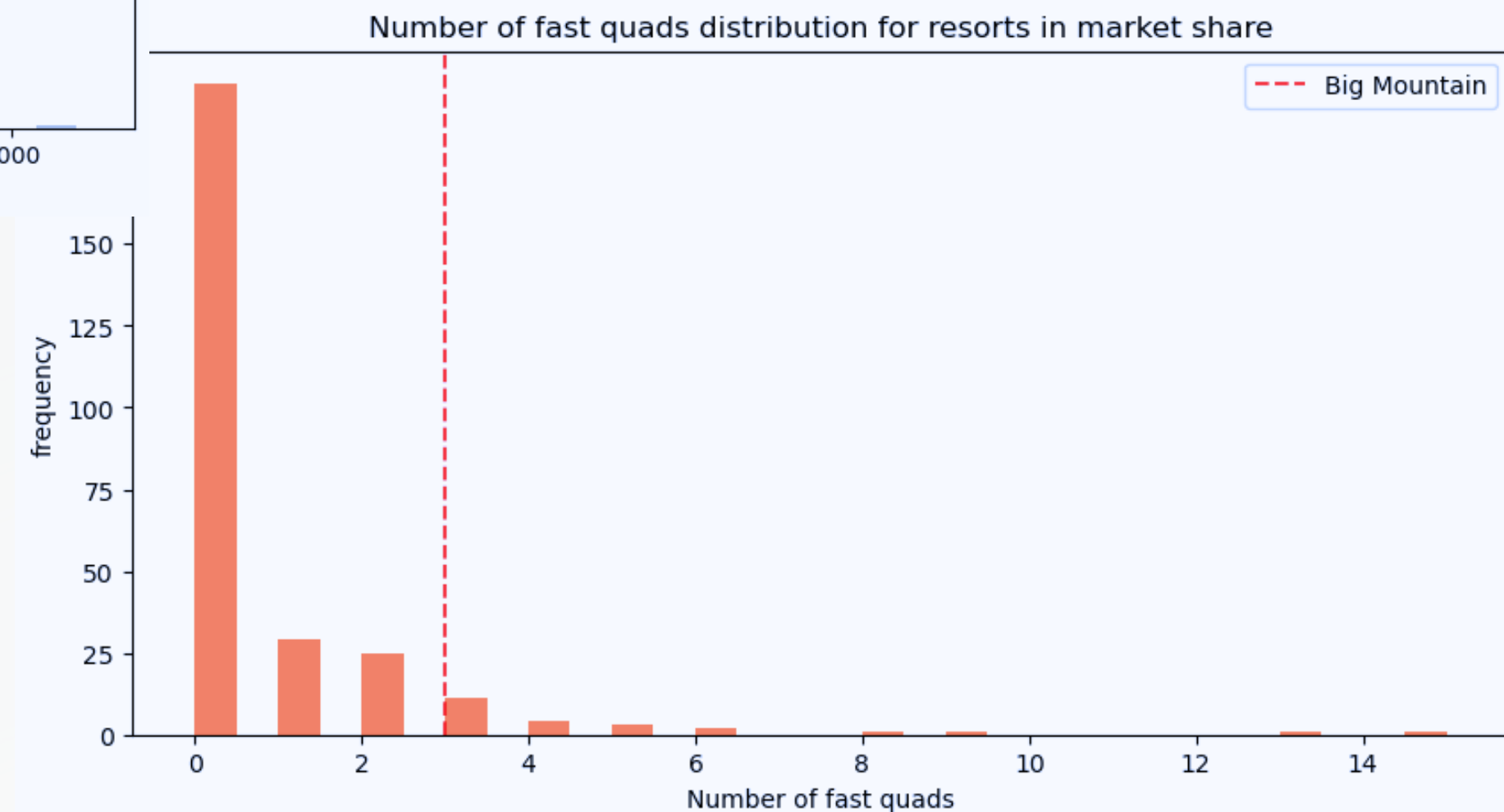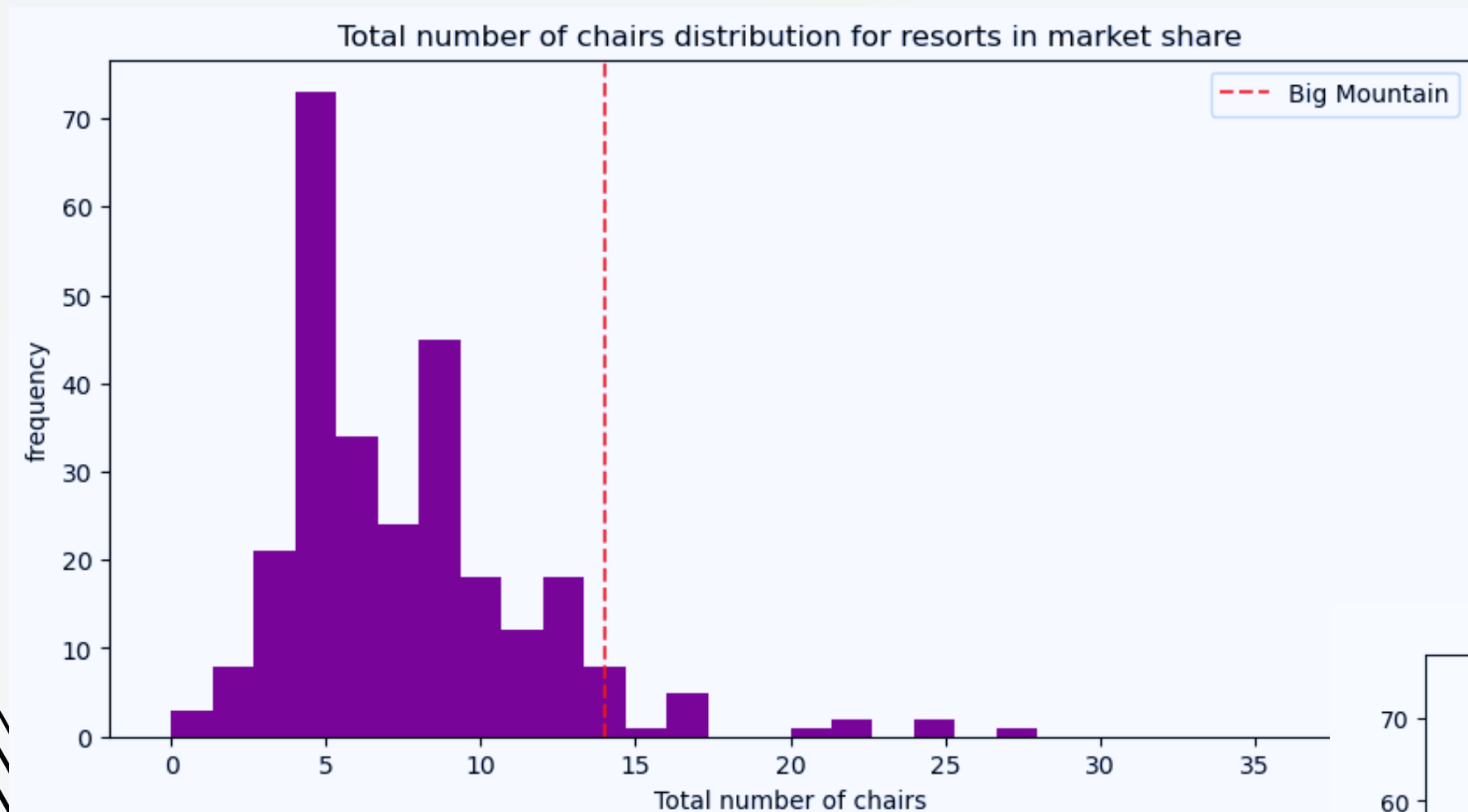
Big Mountain has some of the most acres of skiable terrain compared to other USA resorts

The resort is in the top half of resorts with fast quad lifts

Number of fast quads distribution for resorts in market share

CURRENT STANDINGS

Total number of chairs distribution for resorts in market share

Big Mountain has top chair and run distribution compared to other USA resorts

Total number of runs distribution for resorts in market share
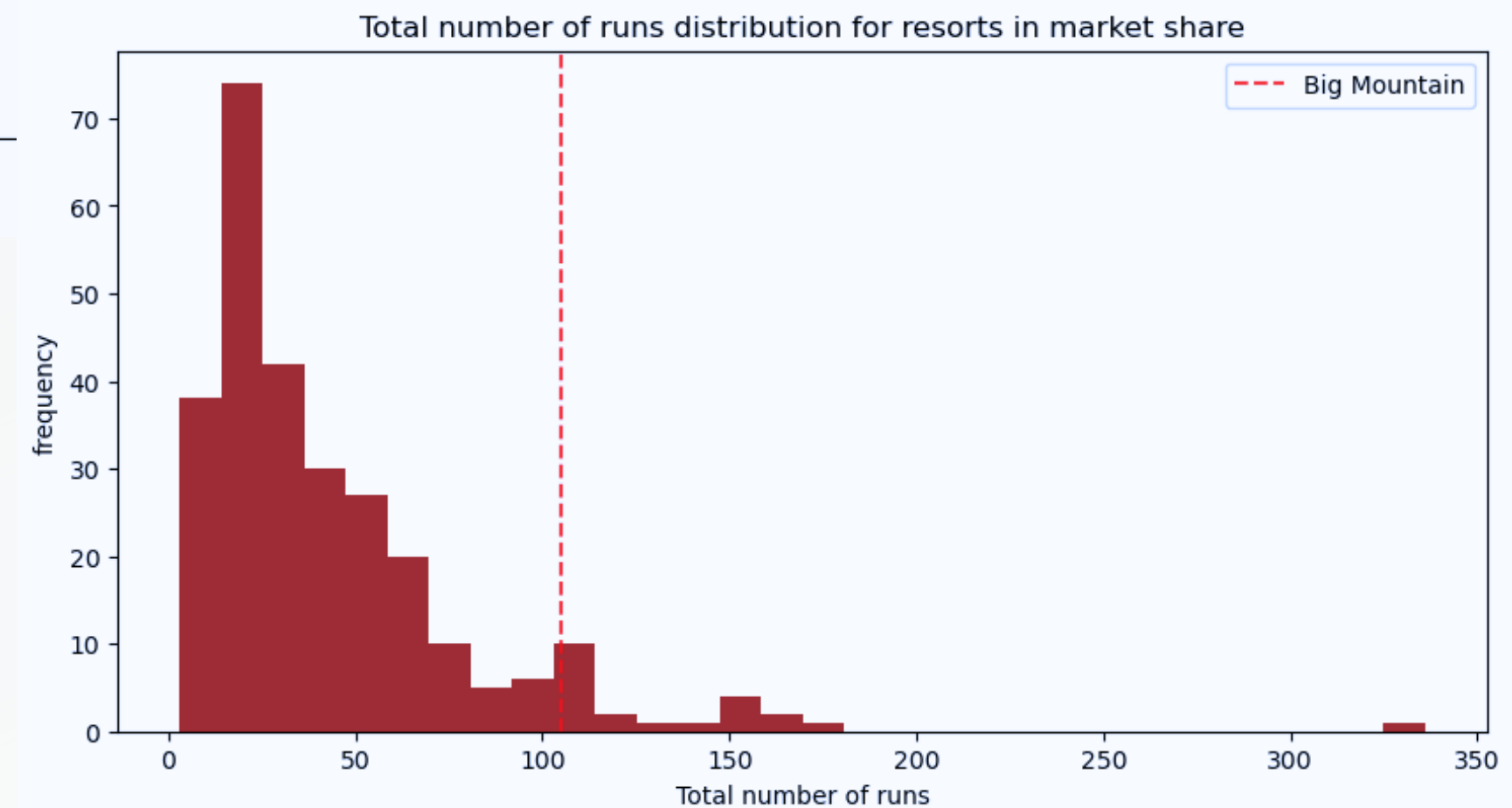
KEY FINDINGS

The models found four dominant features are in common with your linear model:
Number of Fast Quads, Number of Runs, **Acres of Snow Making**, **Vertical Drop of Runs**.

The model suggests that Mountain Resort's ticket prices are lower than the predicted model by 16.31%. suggested potential scenarios for cutting costs like, closing runs, or increasing ticket price by increasing vertical drop, adding acres snow making or increasing the longest run.

Increasing the vertical drop by 150 ft would increase the ticket price by 10.44% from $81 to $89.46, resulting in revenue increase by $14,811,594.

Adding 2 acres of snow making would increase the ticket price by 12% from $81 to $90.75, resulting in revenue increase by $17,068,841.

The best scenario to gain the highest revenue increase is through increasing the vertical drop by 150 ft, adding one Chair Lift, adding one run and adding 2 acres of snow making cover. This scenario has increased ticket price by 12% from $81 to $90.75, resulting in a bottom-line increase by $15,528,841 (After deducting operating costs = $1.54M).

RECOMMENDATIONS

With average visitors skiing for **5** days and **350,000** visitors per winter season, the model recommends

- Add a run 150 ft lower down and a chair lift to support it; no snow making (ticket price increase: + $1.99/ticket)
- Shut down 1 of the least used runs (ticket price increase: none)

REVENUE: ~ $3.47 MIL INCREASE

DATA EXAMINATION

Data used for this analysis was a (1) list of information and amenities for 330 resorts within the same market share as Big Mountain Resort (2) state population and ski resort density data
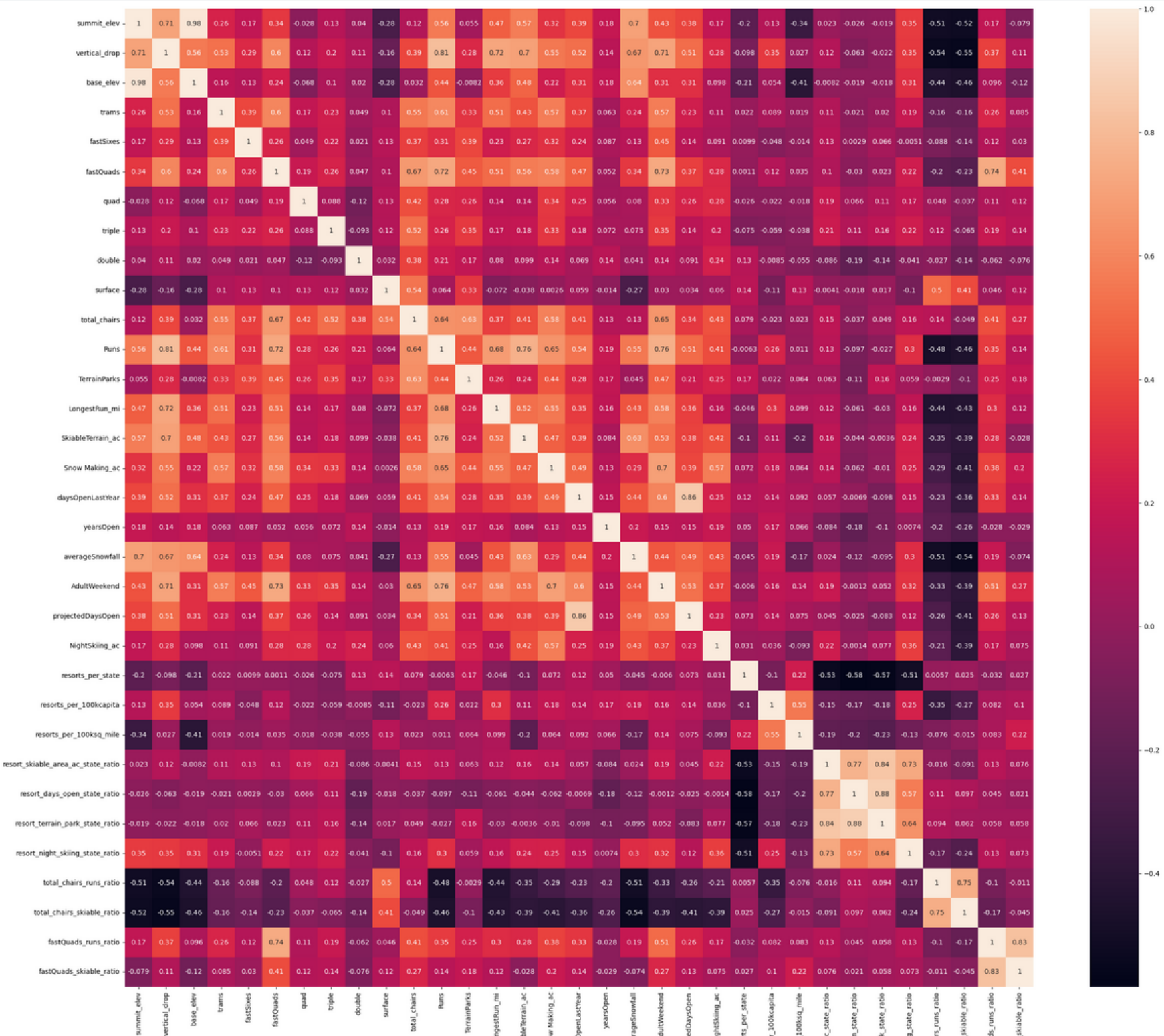
METHODOLOGY

The random forest model (69 trees, imputed missing values with median) has a lower cross-validation mean absolute error by almost $1 compared to mean and linear regression
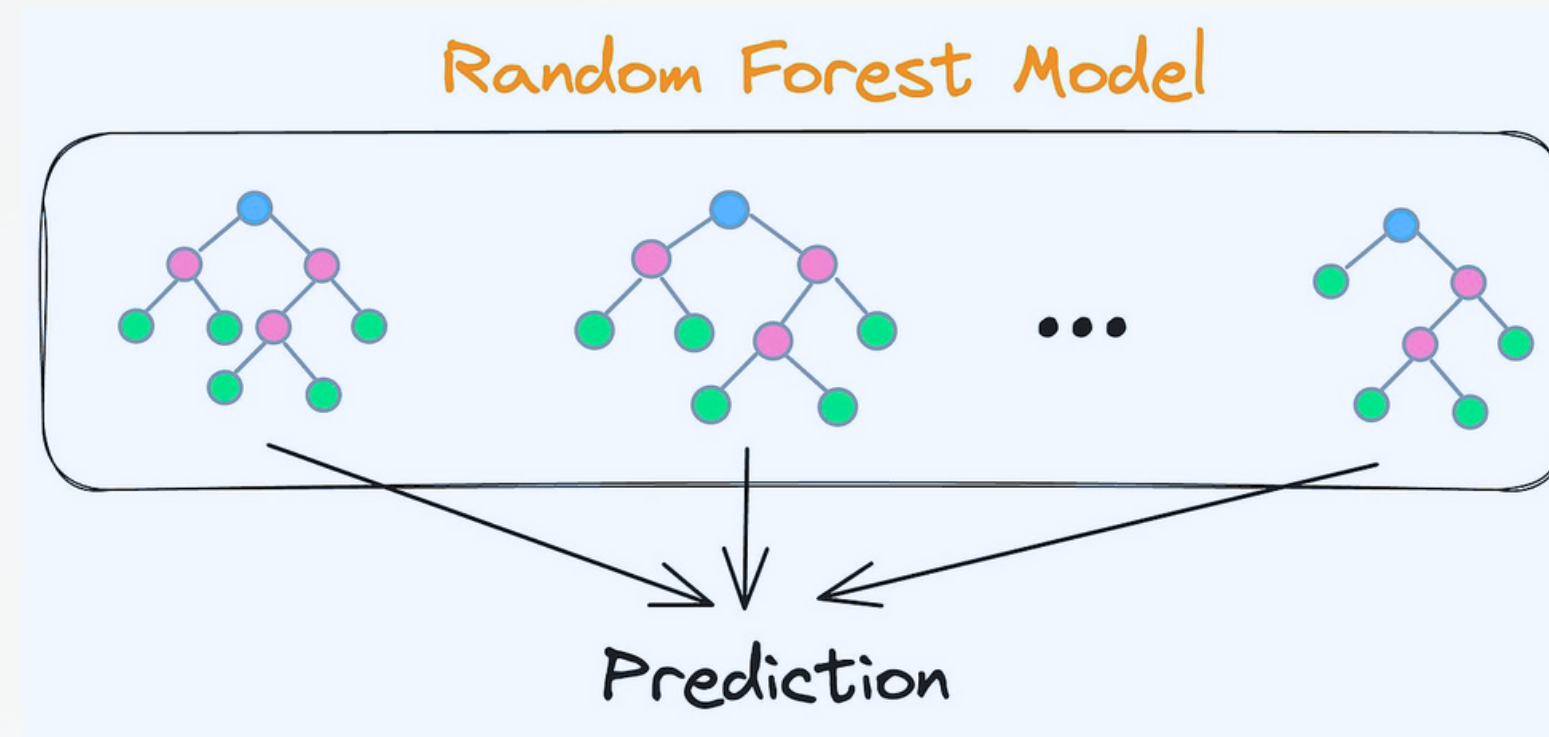
It also exhibits less variability. And when verifying performance on the test set it performed consistent with the cross–validation results.

FUTURE & BEYOND

- **Competition analysis and caution should be exercised when raising ticket prices.** The modeled price for Big Mountain is $95.87, significantly higher than the actual price of $81.00 even when taking into account the expected mean absolute error of $10.39. While no state-specific trends were identified during the exploratory data analysis, there may broader regional trends that need to be taken into account. Visitor geographic data or insights into how visitors choose between resorts may help navigate this gap.

- **Gather more operating cost data:** If we can gather data of operating cost per used run and weekdays ticket price, the model could make recommendations on **dynamic ticket pricing**

- **Examine other revenue streams:** There are also some **non-ski amenities** that the resort could investigate to increase revenues, such as food and beverages served, ski lesson rates, rentals, retail, and partnerships with hotels, local hot springs, etc.

QUESTIONS?
COMMENTS?

"The single most important decision in evaluating a business is pricing power." — Warren Buffett