Guided Capstone Project

Big Mountain Resort Ticket Pricing Analysis and Recommendations

Big Mountain Ski Resort Basic Information

All-Level Skiing/Snowboarding Trails

Accommodations

350K Visitors / year

3 Fast Quads Lift

3,000 Acre Skiable Area

$81 per adult for weekend

Other Information

Name	Big Mountain Resort
Region	Montana
state	Montana
summit_elev	6817
vertical_drop	2353
base_elev	4464
trams	0
fastSixes	0
fastQuads	3
quad	2
triple	6
double	0
surface	3
total_chairs	14
Runs	105.0
TerrainParks	4.0
LongestRun_mi	3.3
SkiableTerrain_ac	3000.0
Snow Making_ac	600.0
daysOpenLastYear	123.0
yearsOpen	72.0
averageSnowfall	333.0
AdultWeekend	81.0
projectedDaysOpen	123.0
NightSkiing_ac	600.0
resorts_per_state	12
state_population	1068778
state_area_sq_miles	147040

Objective of the Data Science Study

New Lift added $1.5M + Operational Cost

Remain Profitable?

Key Findings

Big Mountain Ski Resort's Ticket prices are among the higher tier in 277 studied resorts

Big Mountain Ski Resort's equipment and properties are also in the range of higher tier of the 277 studied resorts

Snow making area, number of runs, number fastquads lifts, and vertical drops will positively affect the ticket price
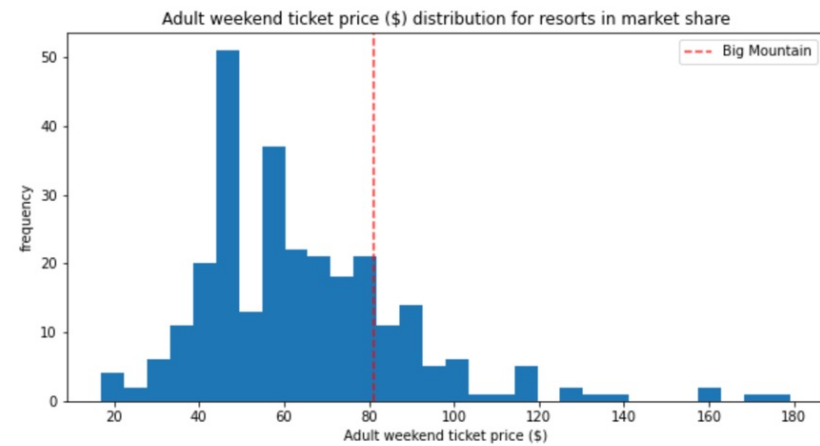
These 4 are also the most important features that will affect the ticket price

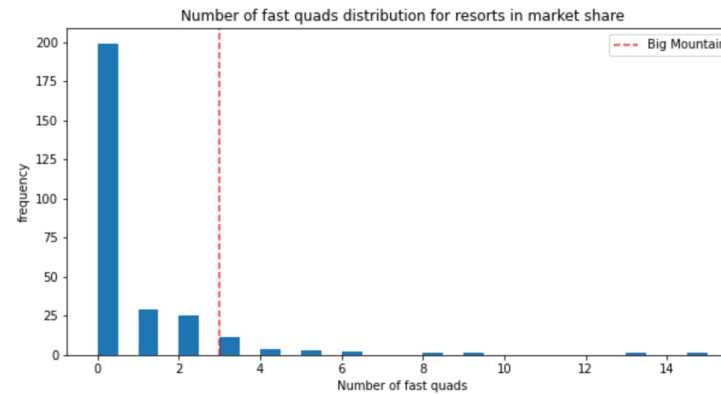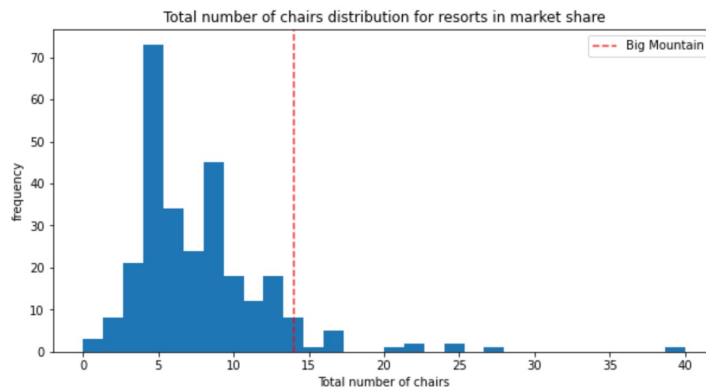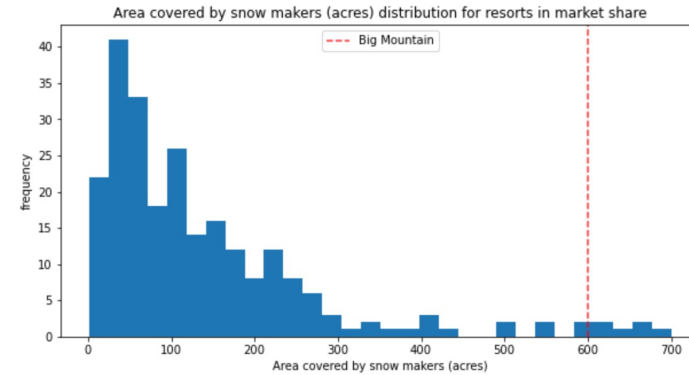The machine learning model suggested that the Big Mountain Ski Resort may qualify a higher lift ticket price
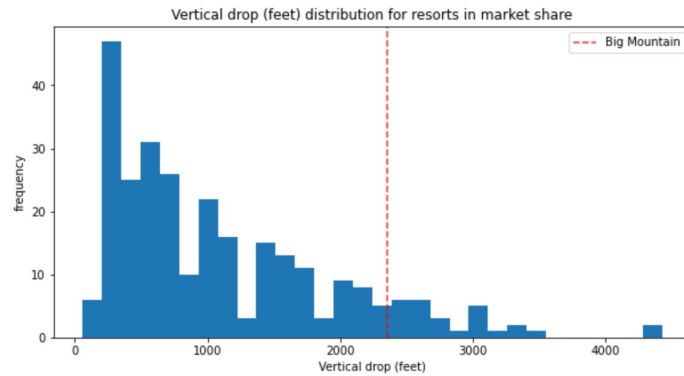
Observation 1

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

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

Current Ticket Price at Higher Tier Among 277 Resorts

It is also the highest in Montana
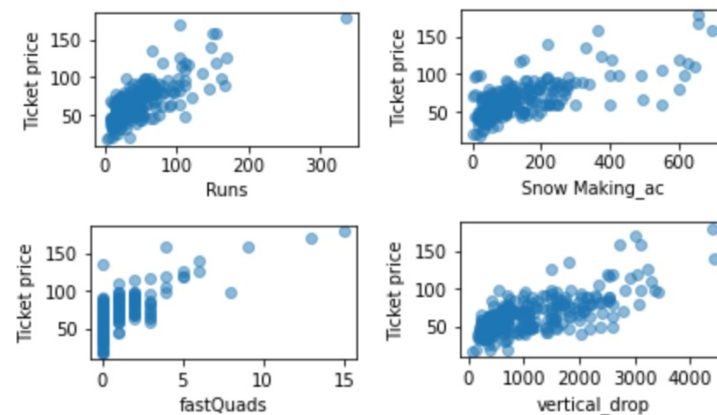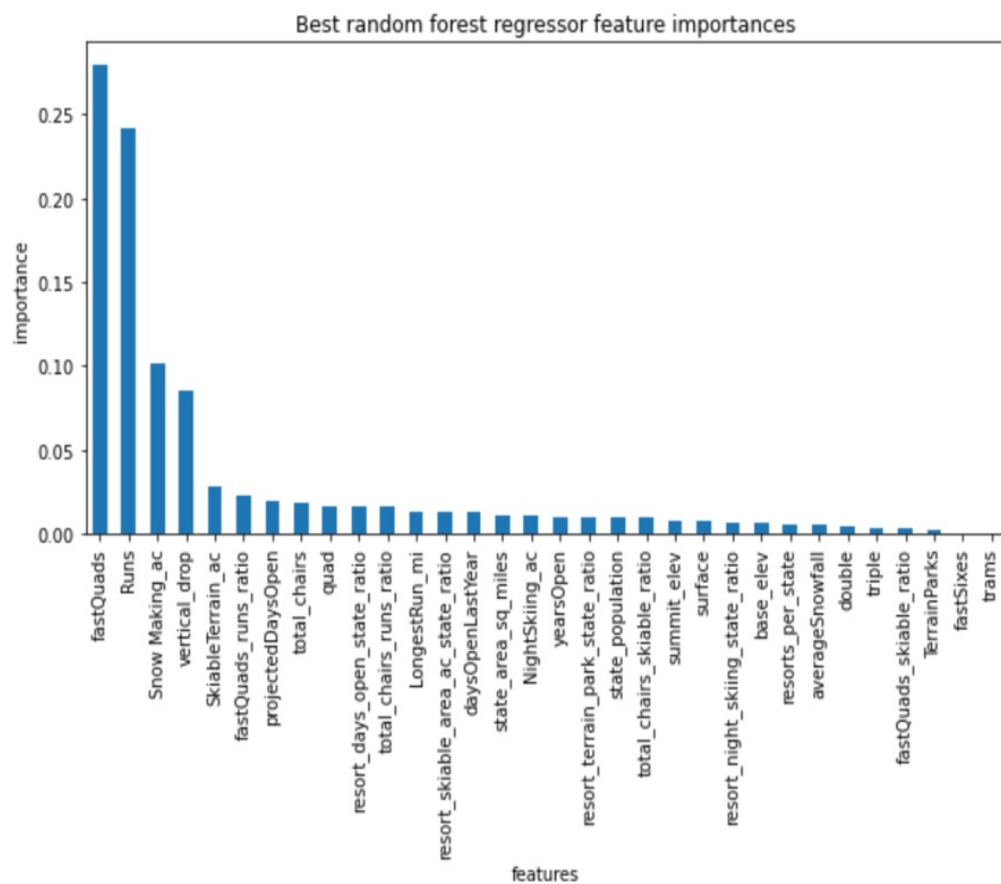
Observation 2

Big Mountain Ski Resort's equipment and properties are also in the range of higher tier of the 277 studied resorts
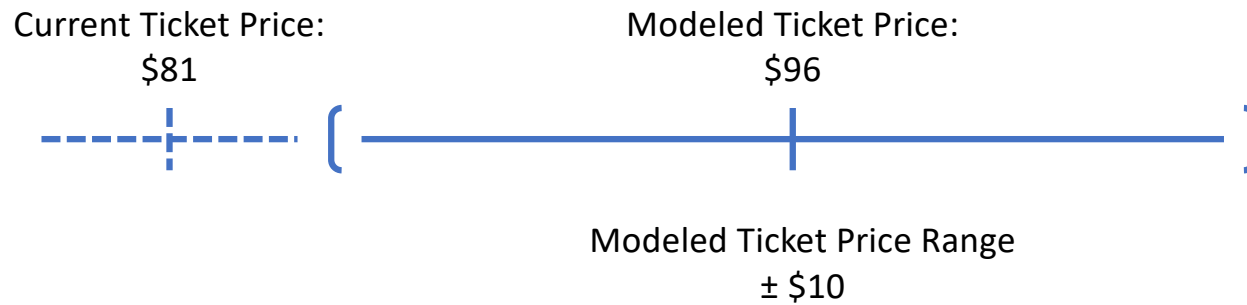
Observation 3

Snow making area, number of runs, number fastquads lifts, and vertical drops will positively affect the ticket price

These 4 are also the most important features that will affect the ticket price

Observation 4

Current Ticket Price:
$81

Modeled Ticket Price:
$96

Modeled Ticket Price Range
± $10

Random Forest Machine Learning Model was chosen, as it
performed better than the Linear Regression Model

The model predicted that the Big Mountain Ski Resort may
qualify a higher lift ticket price

Recommendations

1. May consider increase the ticket price

- Even if the price increased to the lowest modeled price, the increased revenue will still cover the increased operational cost

2. Risk of increasing the price includes

- Less visitors (as it is still the most expensive ski resort), which may also decrease the revenue

3. Next steps

- Verify the accuracy of the database
- Bring in more data, including the revenue from accommodations, merchandise and cost of operation to study the revenue of the resort as a whole

Questions?

Springboard