

BIG MOUNTAIN RESORT

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PROBLEM IDENTIFICATION

To what extent should Big Mountain Resort raise its price and/or cut some facilities to compensate for the cost of an additional lift ?

Success Criteria

Cover the cost of the new chair lift:
\$1,540,000.

Constraint

- Ticket Price is already highest in Montana
- Managers and employees from cut off facilities.

Scope

- Increase Ticket Price
- Lay Off Facilities

Data

- Data from 330 resorts
- Demographic of the states

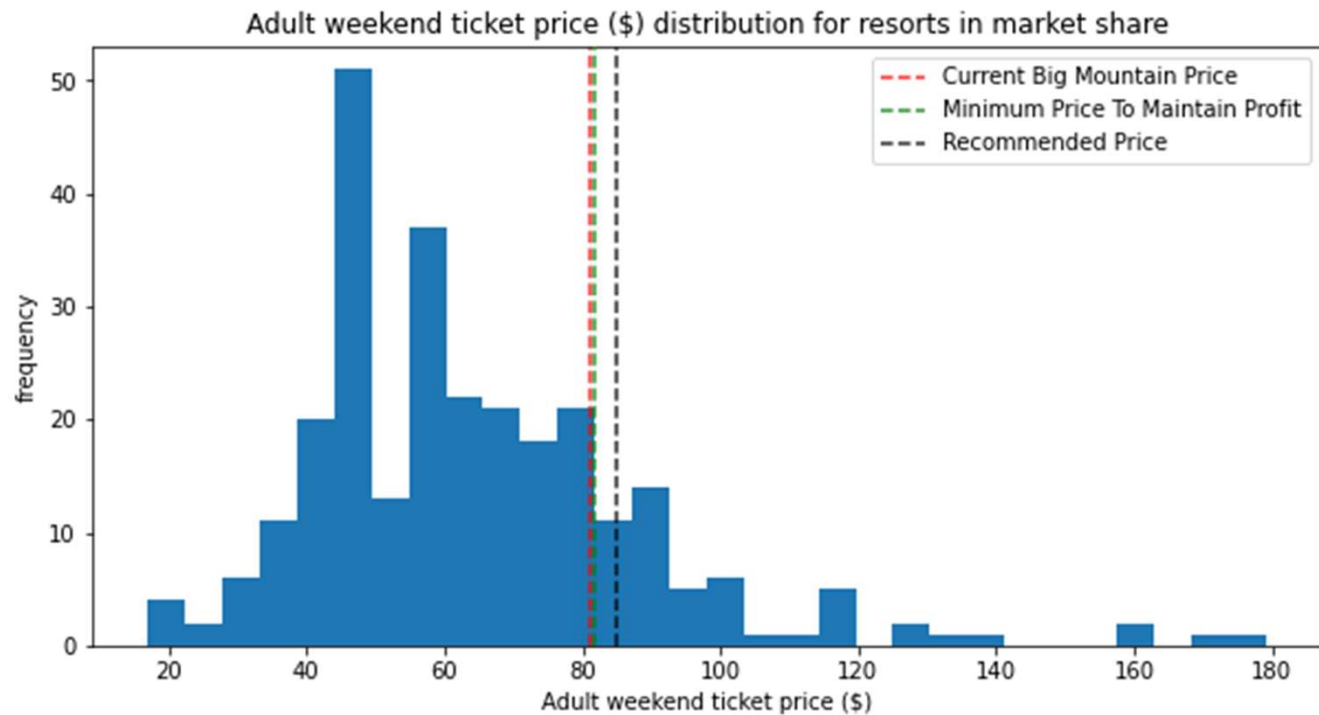
RECOMMENDATIONS AND KEY FINDINGS

Present Status

- Ticket Price: \$81
- # Visitors: 350,000
- Minimum Increased Ticket Price: \$81.88

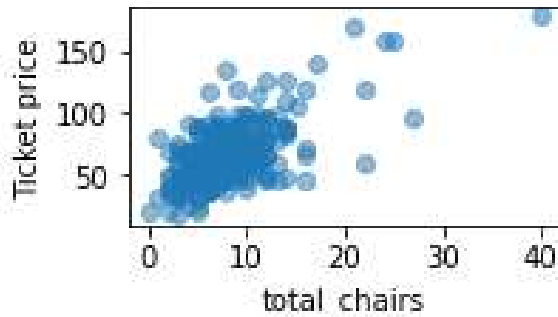
Recommendation

- Recommended Ticket Price: \$85
 - Close 1 or 5 runs
- Increase maximum vertical drop by 150 feet

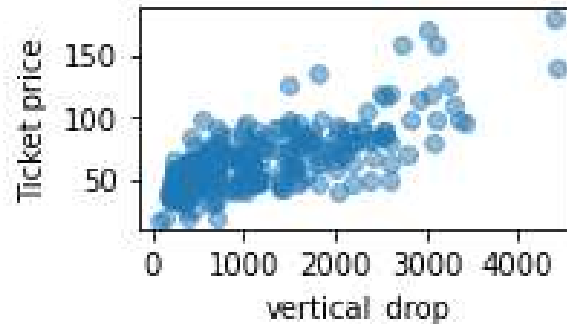


MODELING RESULTS: IMPORTANT FEATURES

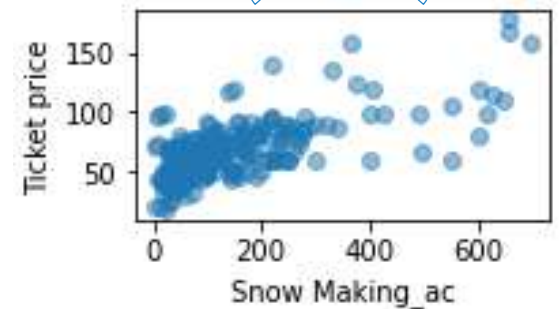
Total Chairs



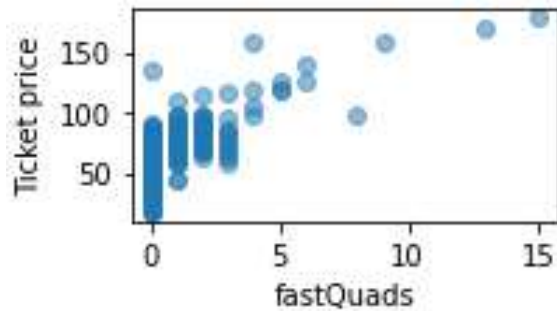
Vertical Drop (feet)



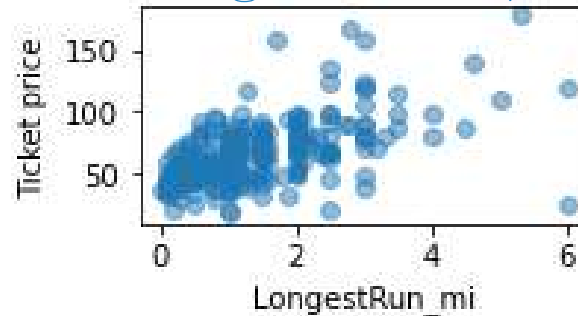
Snow Making Area
(acres)



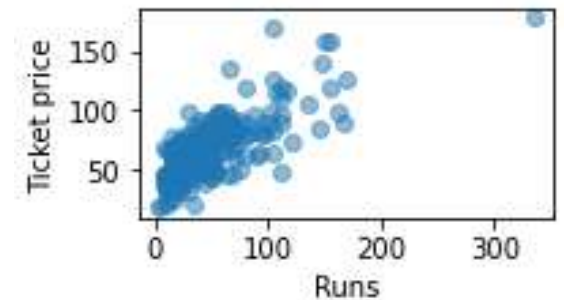
Fast 4 Chair



Longest Run (mi)

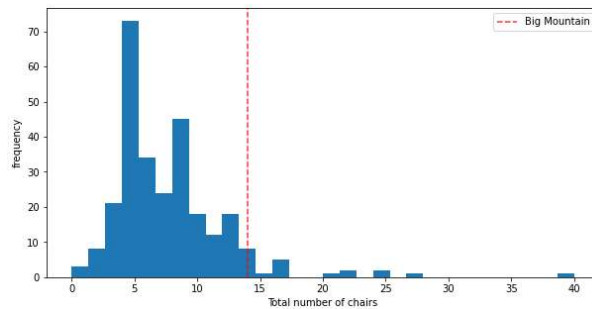


Runs

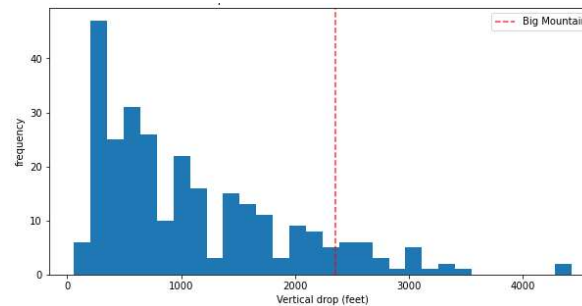


MODELING RESULTS: HOW DOES BIG MOUNTAIN COMPARES?

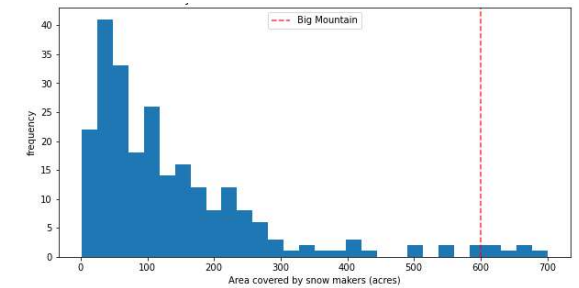
Total Chairs



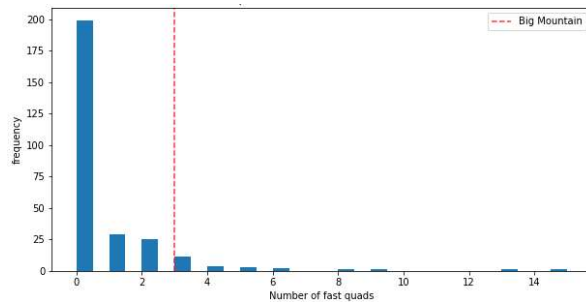
Vertical Drop (feet)



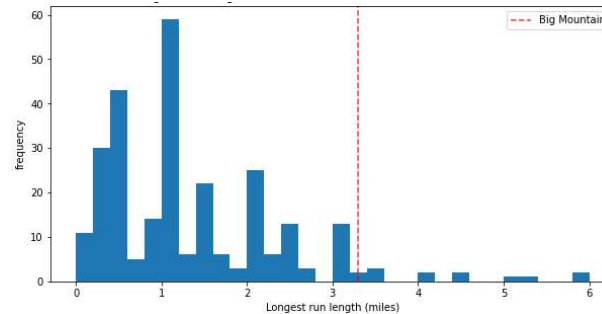
Snow Making Area (acres)



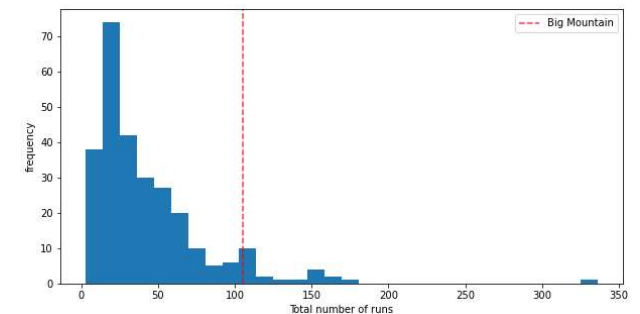
Fast 4 Chair



Longest Run (mi)



Runs



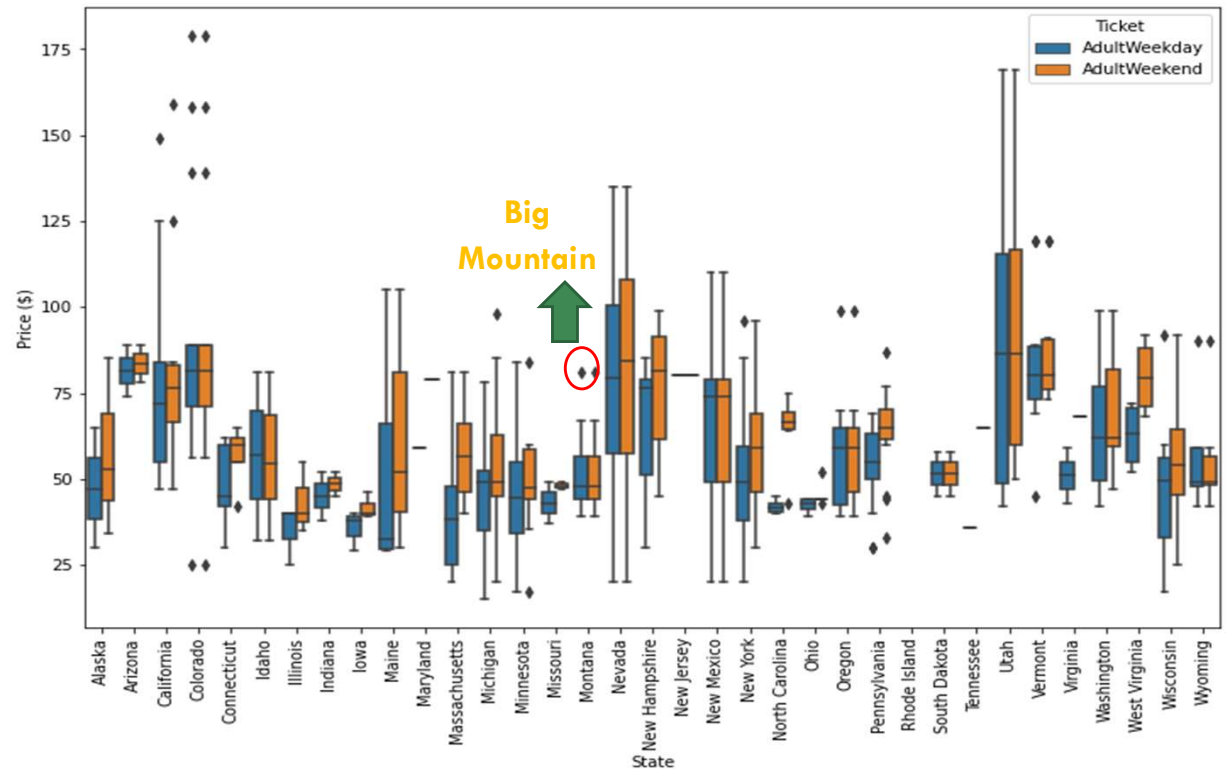
MODELING RESULTS: RANDOM FOREST MODEL

Model Results

- Recommended Price: \$95.87
- Mean Avg Error: \$10.39
- Mean Std Error: \$1.47

Limitations

- Ticket is highest in Montana
- Missing Important Features:
 1. number of customers
 2. how local the customers are
 3. the state income



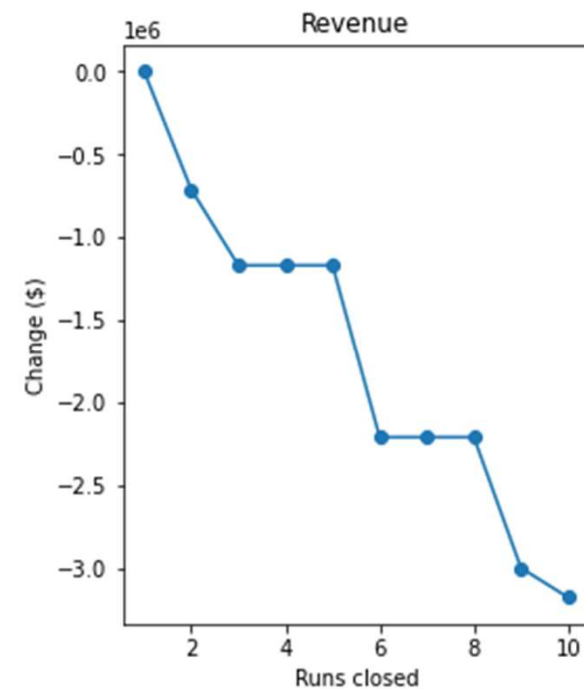
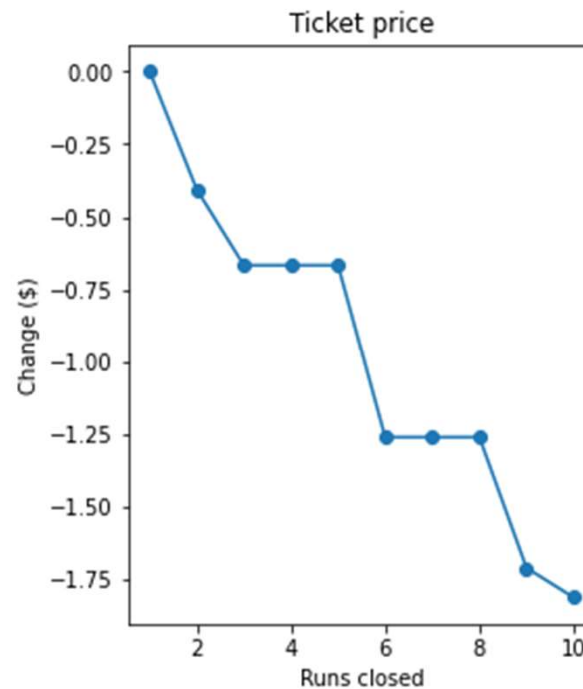
MODELING RESULTS: SCENARIOS

Closing Runs

- Close 1 run does not change ticket price
- If the resort want to close more, 5 is an optimal number to close.

Max Vertical Drop

- Increase by 150 feet
- Increase Ticket Price by \$1.99 (\$3.5 mil revenue)



SUMMARY AND CONCLUSION

- Big Mountain facilities are very grand compare to other resorts across the countries
- Random Forest Model Suggests Ticket Price: \$95.87
- Ticket Price is already highest in Montana
- Recommended Price: \$85