

Big Mountain Resort (BMR)

Optimizing Revenue With A New Chairlift

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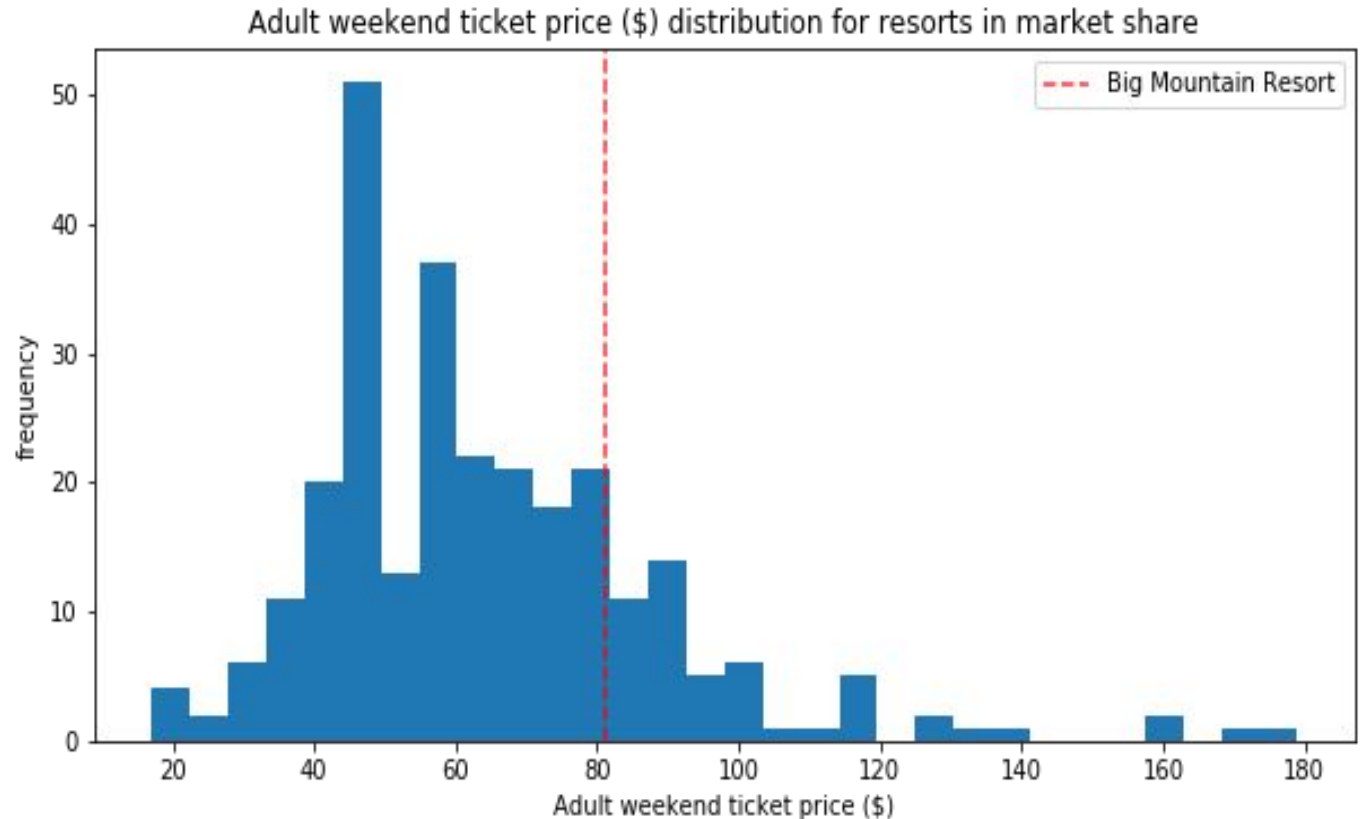
Problem Identification:

- Big Mountain Resort is a premier ski resort
- A new chair lift was installed:
 - Adds additional annual operating cost of **~\$1.4 million**
- How to compensate for new operating costs?
 - Ticket pricing to reflect upgraded resort features within its share of the ski resort market.
- New ticket price should:
 - Be within a reasonable value relative to competitors.
 - Incorporate additional resort features w/ new chair lift.
 - Increase annual revenue by over \$1.4 million

Where does BMR ticket pricing sit right now?

BMR is worth more than its current value within the ski resort market share.

Increasing ticket prices will add additional revenue and be justified within its market valuation.



Recommendations For New Ticket Pricing:

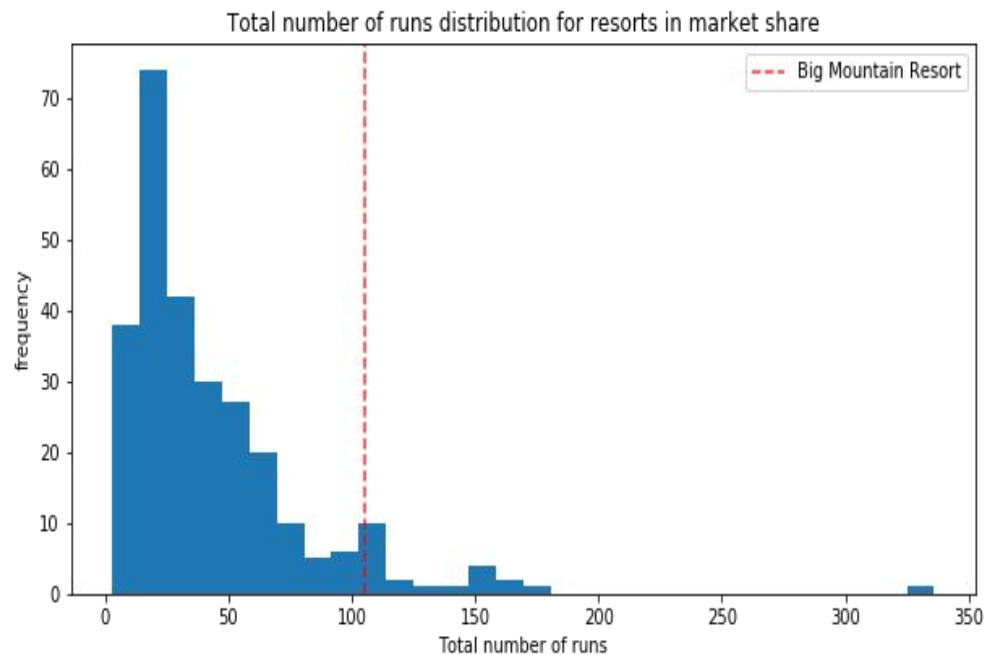
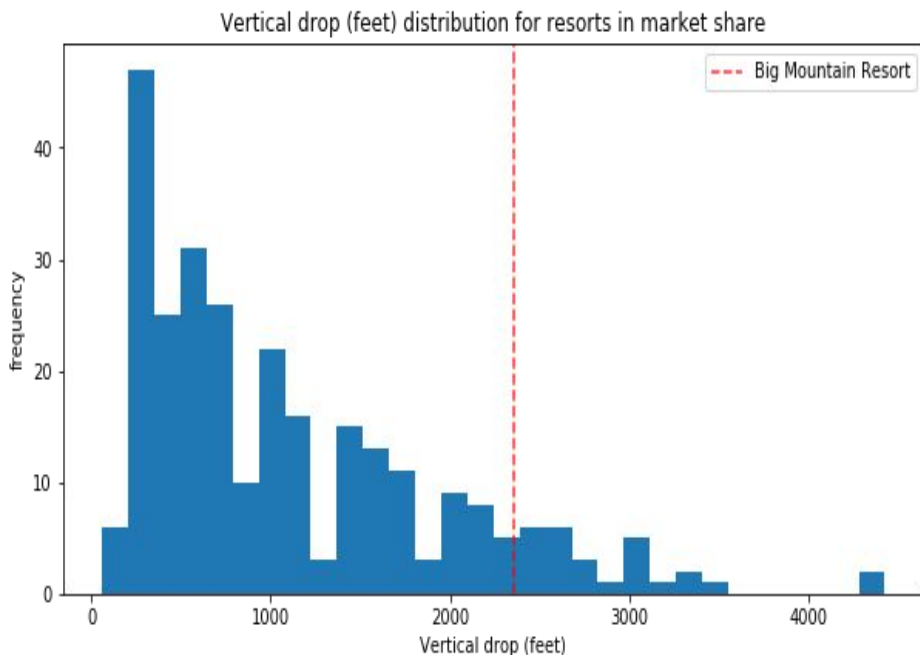
- The current ticket price is \$81.
- 350,000 annual customers; 5-tickets purchased/customer annually
 - *Total of 1.75 million tickets sold annually.*
- To cover the cost of operating new chair:
 - *The ticket price should be increased by \$1/ticket, but is that enough?*
- In modeling BMR relative to its competitors, it is justifiable to increase ticket prices \$10/ticket to a new price of **\$91/ticket.**
- Result: **add revenue of \$17.5 million/year to BMR!**

Modeling BMR Ticket Pricing:

- Nation-wide ski resort data was compiled, cleaned, and transformed.
- Data was scaled.
- PCA Performed.
- Ski resort features correlated with ticket price conducted.
 - Identify what resort features predict ticket valuation.
- Features best predicting ticket price included:
 - *Skiable terrain*
 - *Number of chair lifts*
 - *Number of runs*
 - *Snow making*
- Impute missing values from nation-wide mean.
- Modeling types:
 - Linear Regression
 - Random Forest Model (best performer)

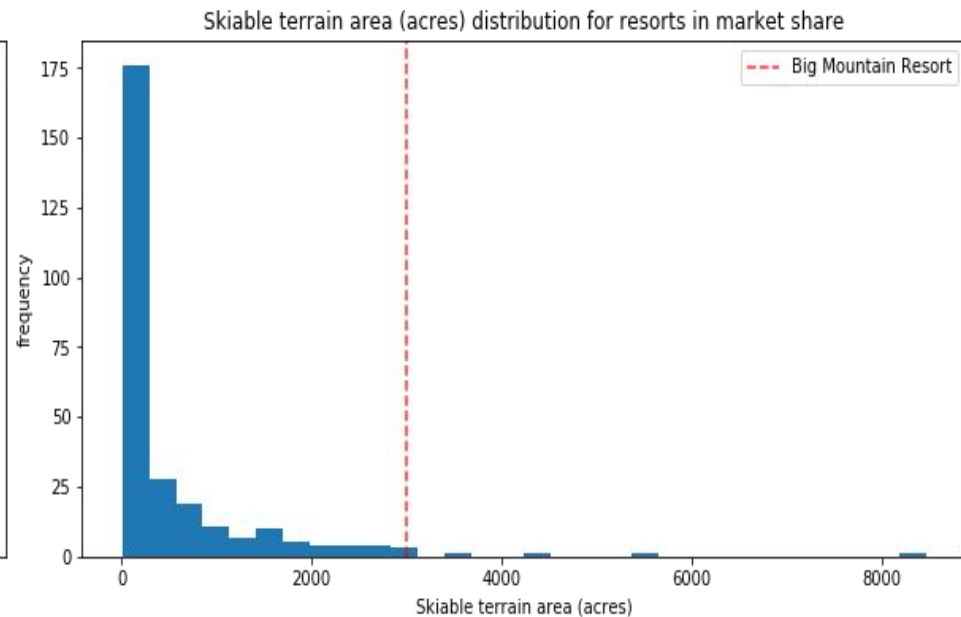
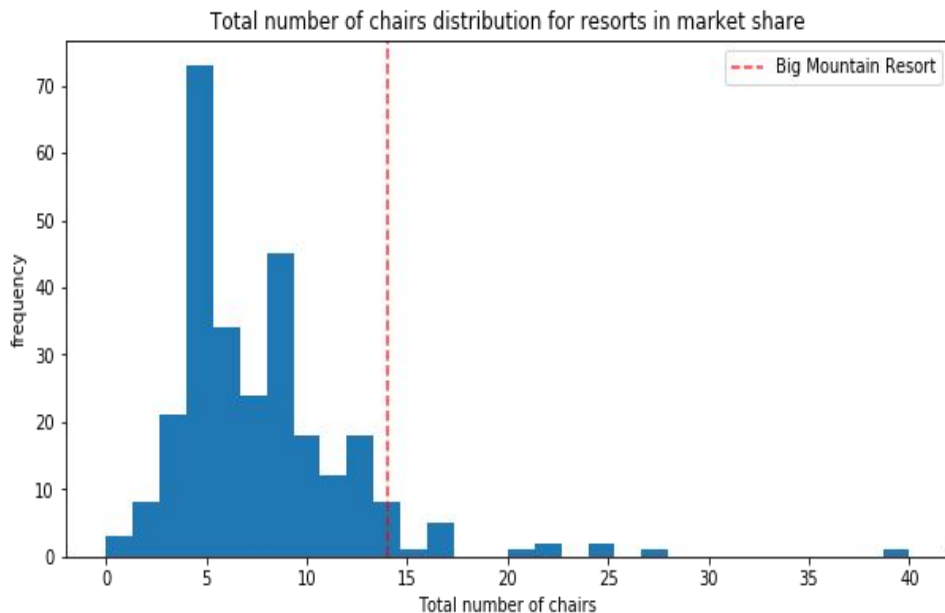
Modeling BMR Ticket Pricing:

- BMR has a lot of vertical drop and total runs!



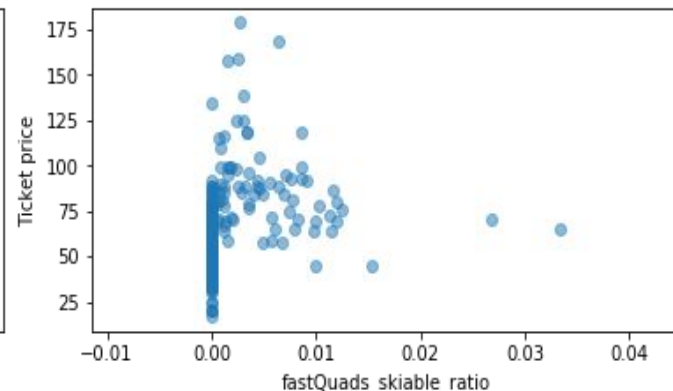
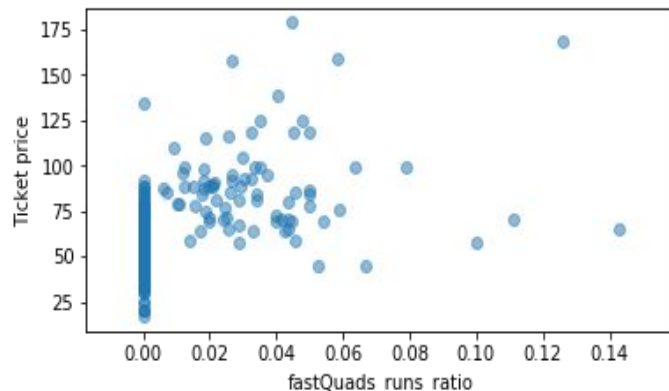
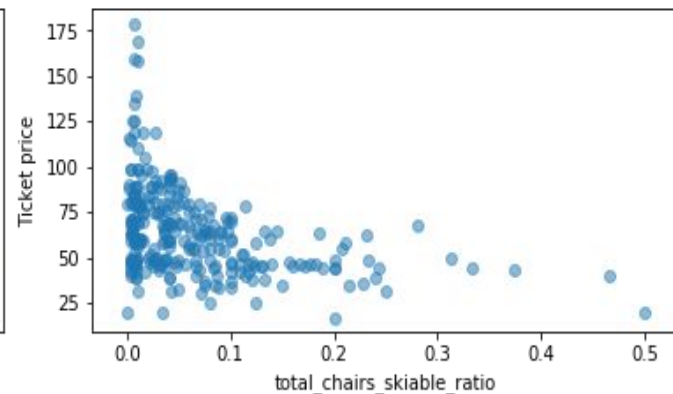
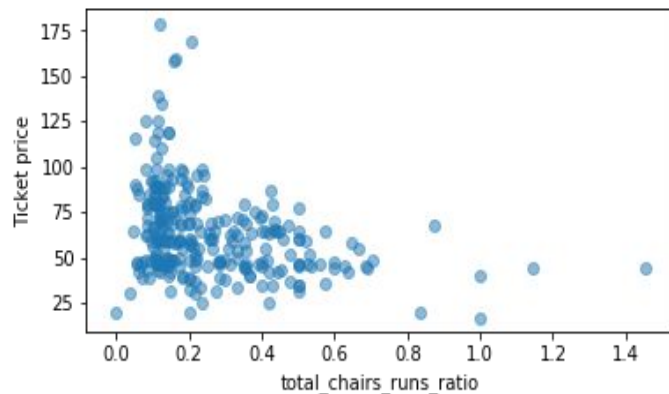
Modeling BMR Ticket Pricing:

- BMR sits on the high end for total chairs and skiable terrain!



Modeling BMR Ticket Pricing:

- Total chairs and number quads has positive correlation with ticket pricing.



Summary, Conclusion

- Big Mountain Resort is undercharging its ticket price relative to its resort features:
 - At the nation-wide level
 - Compared to Montana and regional resorts
- Predictive modeling suggests BMR could charge approximately \$105 for a ticket with the new chair lift feature.
 - Is this too high? Too much change for customers?
- Suggest increasing ticket pricing by \$10/ticket to a \$91/ticket:
 - Increase revenue - **~\$18million/year** - well beyond additional chair lift operating cost
 - Set ticket price for BMR against other western states high-end ski resort competition
- Further considerations for optimizing ticket pricing at BMR:
 - Number of chair lifts, vertical drop are strong features to increasing ticket price in future
 - More lifts equals more ski terrain access
 - More vertical drop attracts customers