Guided Capstone - Executive Summary

Presentation-
Management of Big Mountain Resort

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Brief Description- Big Mountain Resort

- 350,000 people ski or snowboard yearly.
- Access to 105 Trails
- serviced by 11 lifts, 2 T-bars, and 1 magic carpet for novice skiers
- Additional chair lift installed (recently)
- $\$1,540,000$ **Operating cost increase**

Figure: Big Mountain Resort

Problem statement

- Current ticket pricing based on average of resorts
  - Does not allow capitalizing on facilities
  - Relative importance of facilities obscured

Big Mountain is seeking guidance:

Data driven ticket pricing model needed

Recommendation

- 8 important facilities (out of 32)
  - vertical drop, snow making area, total number of chairs, fast quads, Runs, longest run, trams, and skiable terrain area.
- Increase vertical drop by 150 feet
- Add one chair lift
  - Ticket price increases by $1.99, $3,474,638 revenue.

Model results and analysis

- Ticket price determined by first four facilities.
- Non-negligible effect up to maximum of 8 facilities

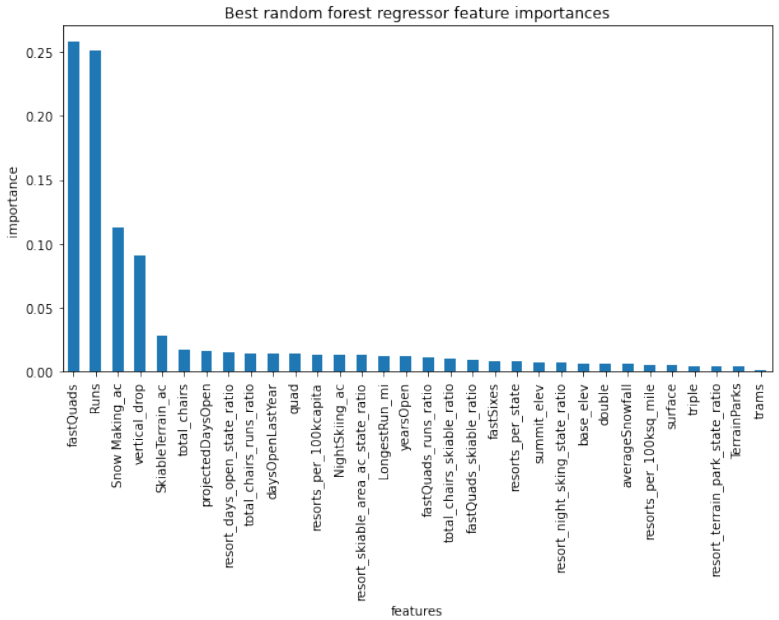

Figure: Relative importance of facilities

Model results and analysis

- Closing 1 run has no effect.
- Closing 2 or more effects negatively
- Closing 3 to 5 runs results to same ticket price
- Closing runs>6 not advisable.

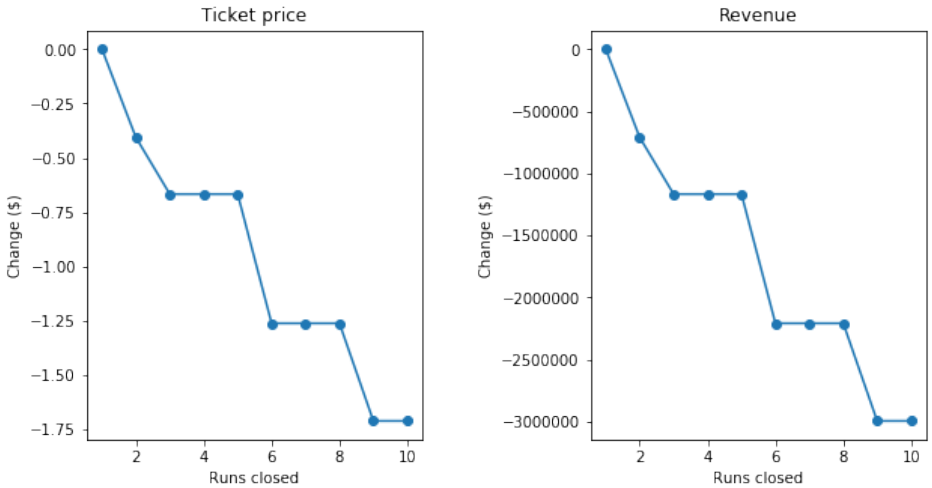

Figure: Effect of run closing in ticket price

Summary and Conclusion

(a) Random forest model for ticket pricing developed

(b) Model used to predict ticket prices for different scenarios

(c) We find Big Mountain has room to capitalize on its facilities.

(d) ticket price increase as high as $1.99 is achievable.