Optimizing Big Mountain Resort's Ticket Pricing

By Rohan Thampi

The Problem

- Big Mountain adding a new chair lift - Increasing costs by $1.54 million this season.

- Current ticket price = $81

- Strategy:
  - Add features to support higher ticket price
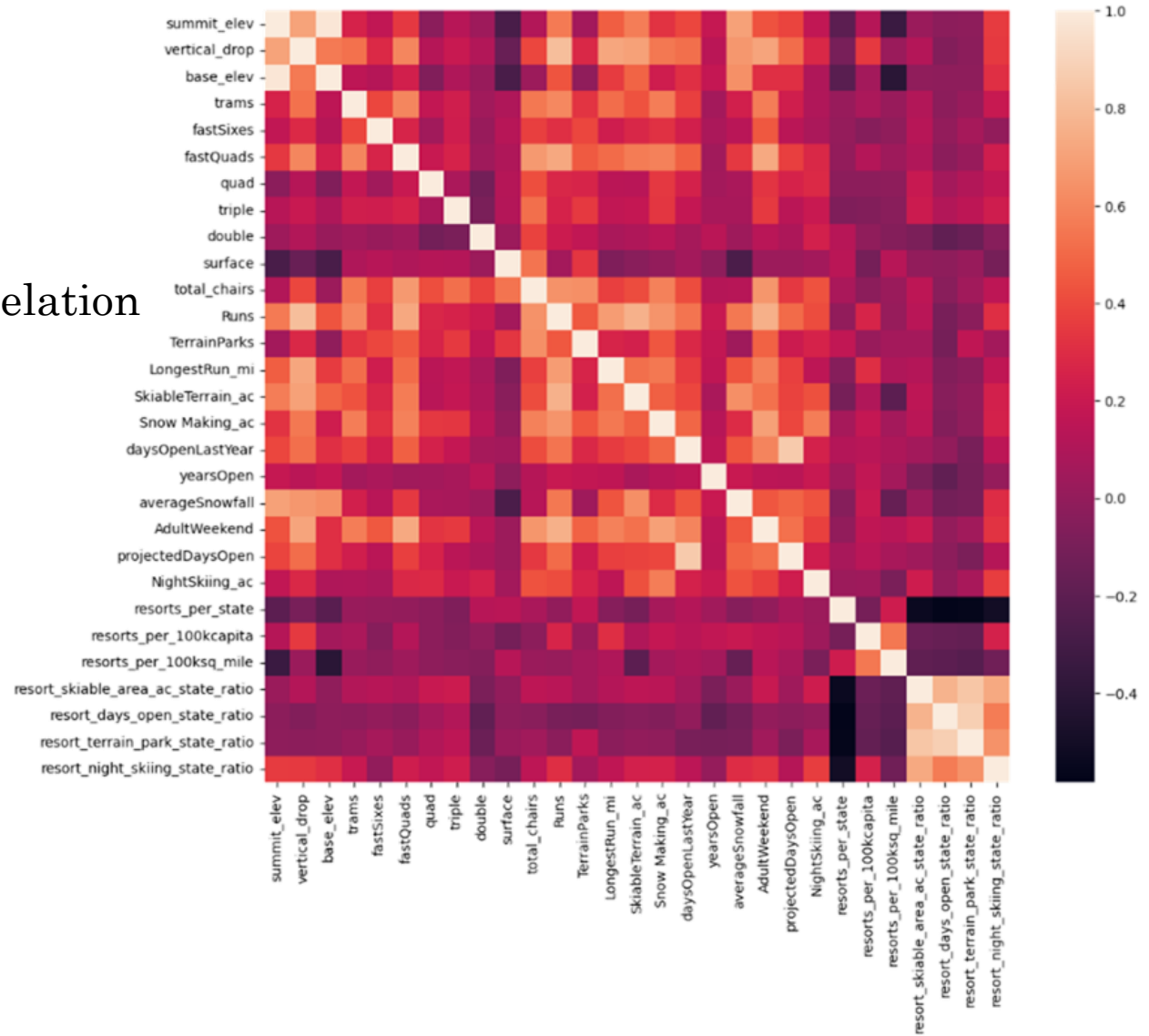 - Cut costs without undermining the current ticket price

How do we increase revenue and stay competitive for this upcoming season?
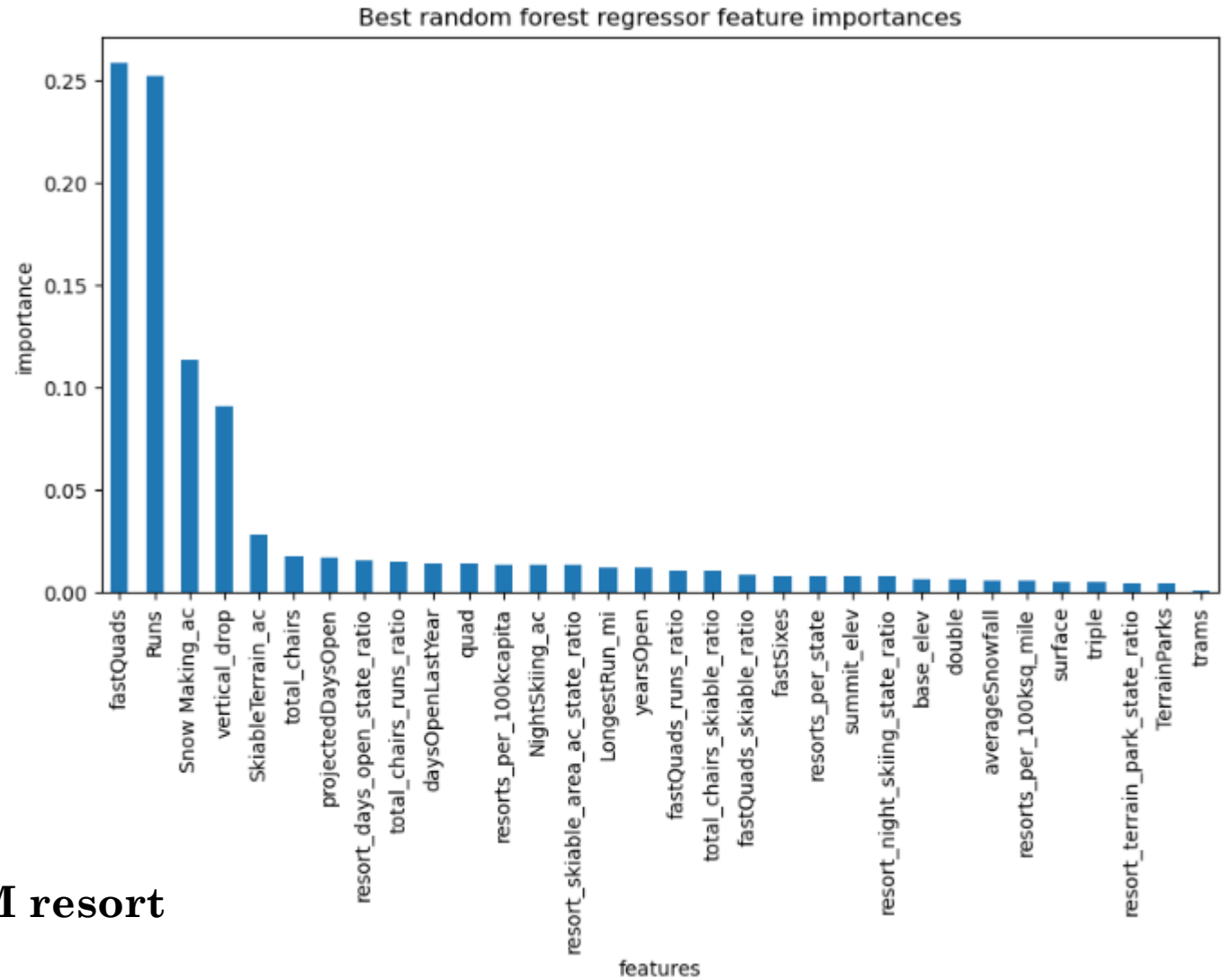
Analysis

The heatmap identifies strong positive correlation value with ticket pricing:

- fastQuads

- SnowMaking_Ac
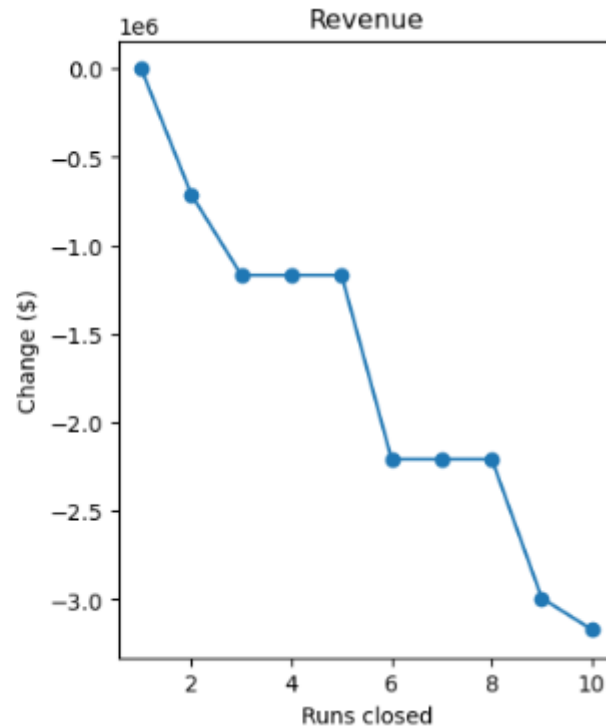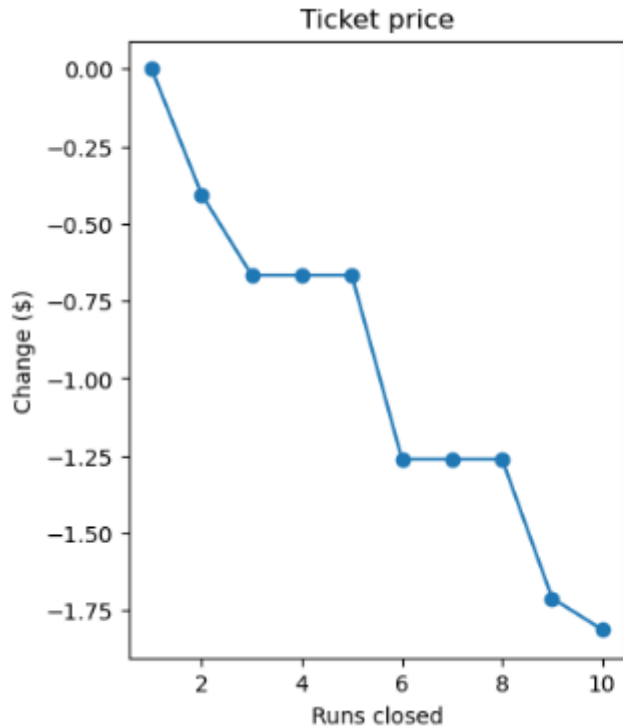
- Runs

- Night skiing ratio

Analysis

- Random forest also highlights most of the same key features:
  - fastQuads
  - Runs
  - Snow Making_ac
  - vertical_drop

Random Forest Model estimates BM resort pricing at $95.87

Best random forest regressor feature importances

Inference

- The model shows that they could close 1 run and it would have almost no impact on their revenue.

- Shutting down 3-5 runs could have a small impact on profits, if operational costs are a concern.

Inference

- Increase in ticket prices was mainly due to:
  - Adding a run
  - Increasing the vertical drop by 150 feet, and
  - Installing an additional chair lift

  … by $1.99 (i.e. $3398551 in revenue over the season!)

- Surprisingly, adding extra 2 acres of Snow coverage bring no difference to the prices whatsoever!
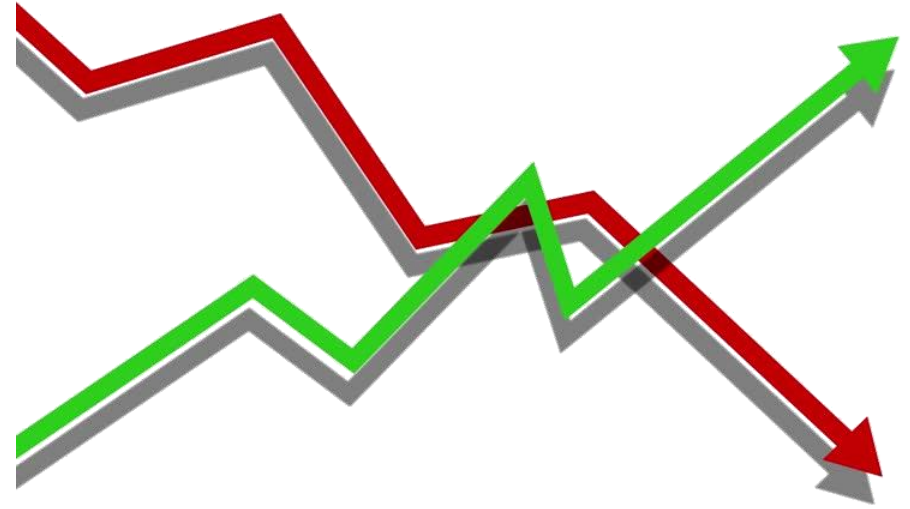
Conclusion

- Big Mountain Resort offers several amenities and significant attractions.

- Having high quality amenities can justify raising the cost, such as adding a new chair lift or a run.

- Growing revenue would help to cover additional operation costs.