Big Mountain Resort
Proposal for Market-driven Pricing

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Ticket Price Study

- Blue Mountain Resort current pricing strategy is to charge a premium above the average price of resorts in its market segment.
- There is an opportunity to capitalize on the features available to customers on the slopes by leveraging market data.
- In this study, we present
    1. Data-driven recommendations for ticket prices
    2. Propose a number of changes that will increase profitability through cutting cost of operation and setting associated market driven ticket prices .

Goals of this project

1. Recommend the initial ticket prices for weekend and weekday visitors at Blue Mountain Resort for the upcoming season by leveraging market data to bring pricing in line with other resorts in the US.
2. Identify and eliminate existing, non-monetizable resort offerings
3. Propose improvements that are supported by setting increased ticket prices.

Recommendation and key findings

1. **Recommended adult ticket price: $86**
    - We recommend testing a conservative increase of $5, charging $86 for adult tickets.
    - As is convention for high end ski resorts such as Big Mountain, pricing is consistent for weekends and weekdays.
2. **We recommend considering closing at least one of the least popular runs.**
    - Closing a single run will have no impact on the ticket price
    - We need further analysis to investigate the viability of further reductions in total runs. The exact number of closures will depend on the savings in operational cost associated with each discontinued run.
    - We will provide more details when we further explain our findings.
3. **We recommend adding a run, increasing the vertical drop by 150 feet, and installing an additional chair lift.**

Modeling results and analysis

This study is based on the current distribution of ticket prices, features offered on the slopes and state demographics for 277 resorts across the United States.

Preliminary data exploration indicates that the following four of features characterizing a resort are most important for determining ticket prices.

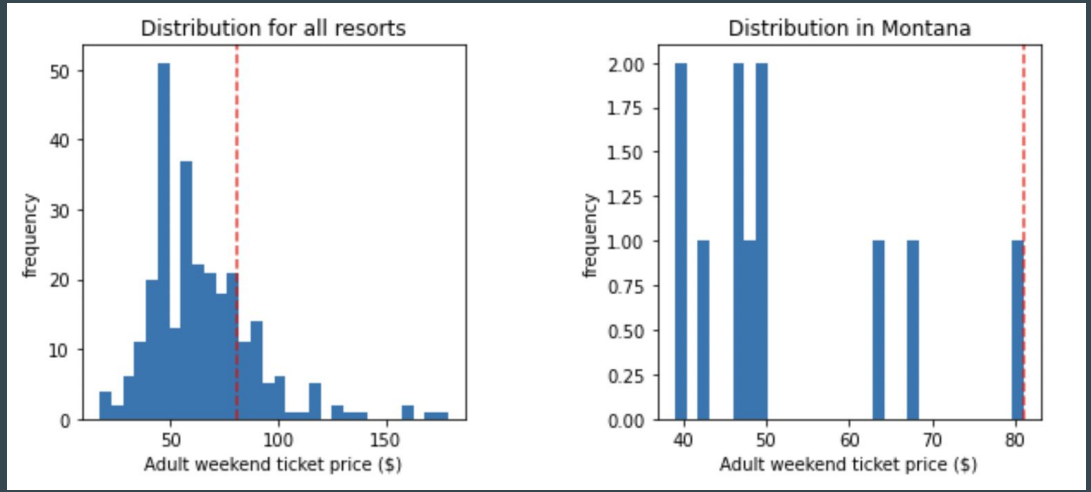
- The number of runs,
- The number of fast quad chair lifts
- The maximum vertical_drop
- The area covered by snowmaking

We trained and developed a predictive model using random forest regression, and determined that we have more than enough data to reliably quantify a ticket price based on the set resort offerings.

Modeling adult ticket price:

Big Mountain currently is charging $81 for an adult ticket.
The resort is on the high end of the market in terms of the four key parameters.
The modeled price for Big Mountain Resort is $92.77.

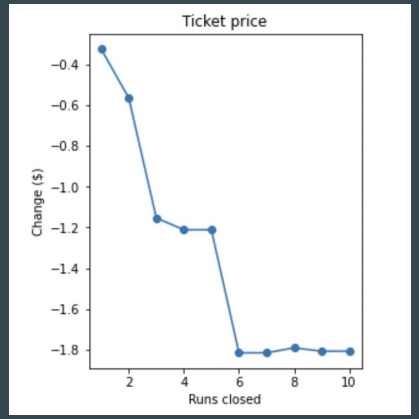
The current ticket price is the 80th percentile over all resorts in the study and
the highest in the state of Montana. , we recommend testing a conservative increase of $5 so as to avoid sudden sticker shock.



Savings from run closures:

- Analysis indicates that we can shut down one of the 110 runs without significant impact ticket price.
- Before recommending the exact number of runs to close, we need further cost benefit analysis comparing the expected savings in operational cost to revenue losses from an associated ticket price decrease.

- Notice that after closing 3 runs, we project little impact on ticket price in closing 2 more.
- Our models suggest that we have undervalued our ticket price by $11. This suggests that we can absorb the cost of closing 10 runs and still increase the ticket price.



Predicted change in ticket price with closure of runs.

Increasing the maximum vertical drop:

- Case for increasing the vertical drop:
  - Big Mountain has a maximum vertical drop of 2350 feet.
  - In Montana, there are 6 resorts that offer a higher vertical drop, maxing at 2600 feet.
- Proposed investment:
  - We can extend the longest run to a point 150 feet lower down, which will require the addition of an extra chair, at an estimated cost of$1,540,000..
- Fiscal feasibility:
  - Our model predicts the added features warrants an increase in ticket price of $0.80.
  - Based on current ticket sales, the gain in revenue falls short by $1400000 short
  - Therefore it will be necessary to leverage the room for increase based on the other premium features at Big Mountain
  - The recommended ticket price of $86 will comfortably compensate for the investment and operation of the added chair and extended run.

Suggested next steps.

Our predictions do have a lot of unexplained variation.. There is scope for more reliable predictions if we incorporate additional information in the analysis.

- Customer Demand
  - We have not considered the effect of price on the popularity of a resort.
  - Is the current price, which is much lower than that recommended in the model, offset by increased demand?
- Other factors that have not been considered
  - Are the operating costs similar across the resorts?
  - Are there are other factors beyond the offerings on the slopes, such as accessibility to the resort and the surrounding amenities, influencing customer demand and therefore pricing.
  - Are there internal market dynamics? How is the price affected by other resorts in the vicinity. For example, while our model suggests a $11 price increase, the current ticket price is the currently the highest in the state, and this may create a limit to price increases.