Big Mountain Resort

Executive Presentation

There is an urgent need to revisit Big Mountain current pricing strategy and reevaluate the service it provides

- Big Mountain is in an urgent need to increase its margin due to increase in costs
    - Big Mountain Resort (BMR) has recently installed an additional chair lift to help increase the distribution of visitors across the mountain. This additional chair increases their operating costs by $1,540,000 this season
- Big Mountain may be able increase tickets prices based on the facilities it provides
    - Big mountain current pricing strategy - average price + premium - may not be optimal and needs further investigation
- Big Mountain may be able to reduce costs without undermining ticket price for the coming year
    - Big Mountain may be able to cut down few facilities without changing its ticket prices

To increase its profit, Big Mountain resort needs to revisit its pricing strategy and reevaluate the services it provides

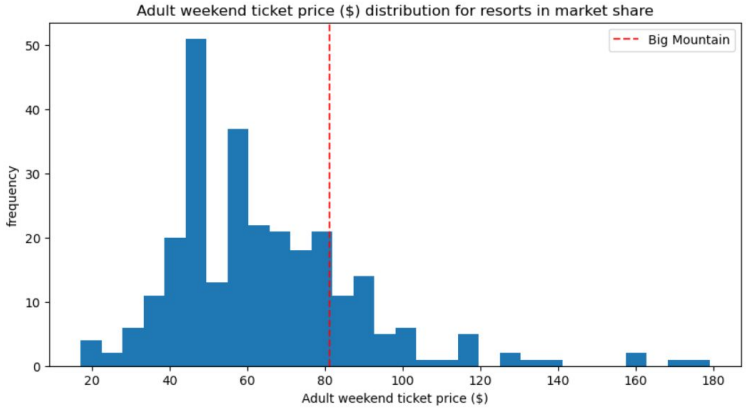
Data science model developed using market data suggests there is an opportunity for Big Mountain to increase its profit

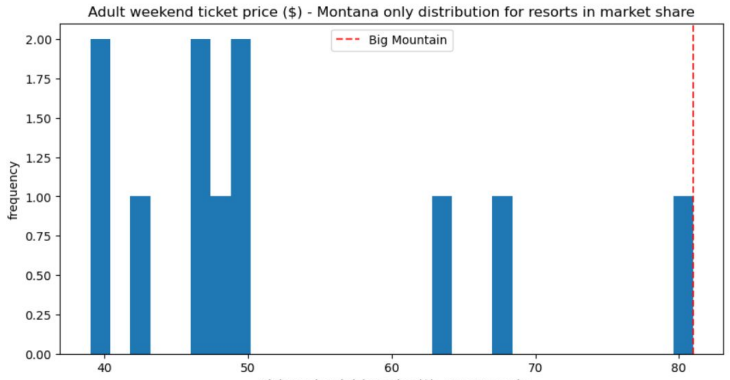
- There is an opportunity to increase the price with or without enhancing its existing facilities
    - Big Mountain Resort modelled price is $95.87, actual price is $81.00. Even with the expected mean absolute error of $10.39, this suggests there is room for an increase
    - Big mountain may be able to increase its profit by adding a run, increasing the vertical drop by 150 feet, and installing an additional chair lift

- Big Mountain can close down runs to reduce costs but revenue may also drop
    - The model says closing one run makes no difference. Closing 2 and 3 successively reduces support for ticket price and so revenue

Recommended increase in price is based on estimation by the model and takes into account maximum variability

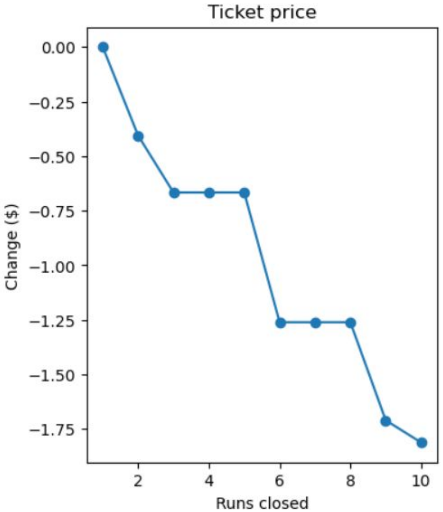
- Big Mountain Resort modelled price is $95.87, actual price is $81.00.
- Even with the expected mean absolute error of $10.39, this suggests there is room for an increase.
- **Big Mountain may aim for a $85.48 price ($95.87 - $10.39),** which is the lowest price that the model estimated taking into account maximum uncertainty
- **However, since Big Mountain's prices are already in the premium segment and highest in Montana,** we should consider whether any price change may lead to a drop in customers as customers may already feel they are paying a premium

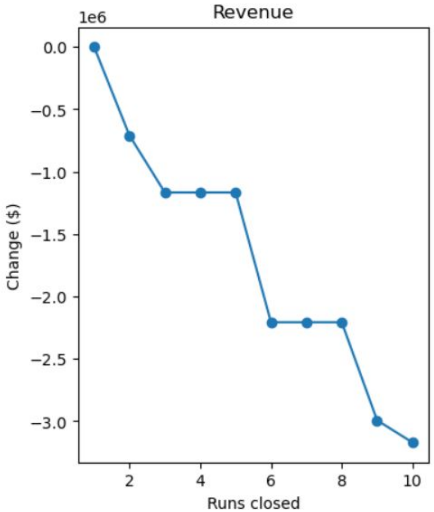




Big Mountain may be able to reduce runs but it may need to change its prices accordingly

- The model says closing one run makes no difference. Closing 2 and 3 successively reduces support for ticket price and so revenue.
- If Big Mountain closes down 3 runs, it seems they may as well close down 4 or 5 as there's no further loss in ticket price.
- Increasing the closures down to 6 or more leads to a large drop.



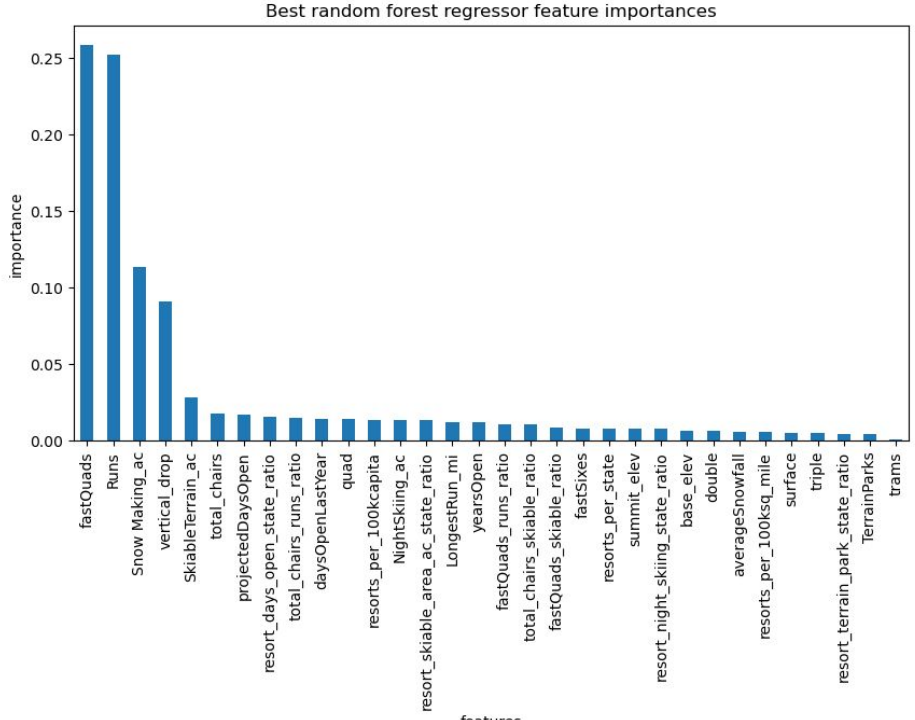


Big mountain may be able to increase its profit by adding a run, increasing the vertical drop by 150 feet, and installing an additional chair lift

- This scenario increases support for ticket price by $1.99
- Over the season, this could be expected to amount to $3,474,638 assuming 350,000 visitors and each visitor on average buying 5 days of skiing ticket
- Assuming additional cost of chair of %1,500,000, this presents an opportunity of profit increase of ~$2MM

Increasing the longest run by .2 miles and guaranteeing its snow coverage by adding 4 acres of snow making capability also doesn't provide any difference

- The random forest model used for prediction doesn't rate 'Longest run' as an important feature in determining the ticket price
- The model does not predict an increase in the price because of this additional feature



Conclusion & Next Steps

- There is an opportunity for Big Mountain resort to increase its profit but additional data is needed:
    - We need to collect data on costs for maintaining additional runs for further evaluating the scenario for closing a run.
    - Data is needed to assess customers' willingness to pay to consider any price change.
    - Since Big Mountain's prices are highest in Montana, there is a risk that any price change may lead to a huge drop in customers as customers may already feel they are paying a premium.
        - Big mountain resorts can do a short survey among potential customers to see how customers would perceive any price increase and make decisions accordingly.

- An intuitive UI should be built to enable further scenario analysis using the model without the help of a Data Scientist.
    - This UI can then be easily used by leadership, business analysts, and other stakeholders to check different scenarios using the model